THE UNITED STATES STRATEGIC BOMBING SURVEY

THE EFFECTS OF STRATEGIC BOMBING ON GERMAN MORALE

VOLUME I

Morale Division

May 1947

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FOREWORD

The United States Strategic Bombing Survey was established by the Secretary of War on 3 November 1944, pursuant to a directive from the late President Roosevelt.

The officers of the Survey were :

Franklin D'Olier, Chairman.
Henry C. Alexander, Vice-Chairman.
George W. Ball,
Harry L. Bowman,
John K. Galbraith,
Rensis Likert,
Frank A. McNamee, Jr.,
Paul H. Nitze,
Robert P. Russell,
Fred Searls, Jr.,
Theodore P. Wright, Directors.
Charles C. Cabot, Secretary.

The Table of Organization provided for 300 civilians, 350 officers and 500 enlisted men. The Survey operated from headquarters in London and established forward headquarters and regional headquarters in Germany immediately follow the advance of the Allied armies.

It made a close examination and inspection of several hundred German plants, cities and areas, amassed volumes of statistical and documentary material, including top German government documents; and conducted interviews and interrogations of thousands of Germans, including virtually all of the surviving political and military leaders. Germany was scoured for its war records which were found sometimes, but rarely, in places where they ought to have been; sometimes in safe-deposit vaults, often in private houses, in barns, in caves; on one occasion, in a hen house and, on two occasions ,in coffins. Targets in Russian-held territory were not available to the Survey.

Some two hundred detailed reports were made. During the course of its work, the Survey rendered interim reports and submitted studies and suggestions in connection with the air operations against Japan.

While the European War was going on, it was necessary, in many cases, to follow closely behind the front; otherwise, vital records might have been irretrievably lost. Survey personnel suffered several casualties, including four killed.

The Survey studied the effects of the air attack on Japan and further reports have been submitted to the Secretary of War and the Secretary of the Navy.

PREFACE

The morale division of the United States Strategic Bombing Survey had as its objective, "To determine the direct and indirect effects of bombing upon the attitudes, behavior and health of the civilian population, with particular reference to its effect upon the willingness and capacity of the bombed population to give effective and continued support to the German war effort."

Volume I contains two parts. Part I reports conclusions on German morale based for the most part on interviews with 3,711 German civilians. Part II covers evidence derived principally from official German morale documents and from selected interrogations with officials and civilian leaders. In certain cases supporting evidence from interviews with the civilian population is also introduced here.

Volume Π includes a miscellaneous collection of special reports which provide supporting data on morale from supplementary studies.

The findings of the medical branch of the morale division, appraising the effect of bombing on the physical and mental health of German civilians and on the medical resources of Germany, are presented separately.

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SUMMARY: THE MORALE EFFECTS OF AIR RAIDS

1. Strategic bombing was the major means by which the Allies were able to strike a direct blow at the morale of German civilians. Almost onethird of the Germans were subjected to it and all lived in the shadow of its threat. One-half of one percent were killed by bombing, and 1 percent injured. One-fifth of all civilians were deprived of water, gas, or electricity, many of them for long periods. One of every 15 civilians was evacuated to another area. Every German, whether or not he experienced these direct effects of bombing, suffered such indirect results as shortage of food and supplies, and the disruption of transportation. There was no German civilian who did not experience hardship or suffering as a result of bombing.

2. Bombing seriously depressed the morale of German civilians. Its main psychological effects were defeatism, fear, hopelessness, fatalism, and apathy. War weariness, willingness to surrender, loss of hope for German victory, distrust of leaders, feelings of disunity and demoralizing fear were all more common among bombed than unbombed people. By the beginning of 1944, threefourths of all Germans regarded the war as lost. Air warfare was less important than other military developments in producing defeatism, but bombing aided greatly in convicing civilians of Allied superiority, both through the severity of the raids and through the unchecked passage overhead of fleets of Allied aircraft.

3. Bombing did not stiffen morale. The hate and anger it aroused tended to be directed against the Nazi regime which was blamed for beginning air warfare and for being unable to ward off Allied air attacks. There is some evidence that under heavy bombing the hate and anger was dulled by apathy.

4. Continuous heavy bombing of the same communities did not produce decreases in morale *proportional* to the amount of bombing. The biggest drop in morale was apparent in a comparison between unbombed towns and the only lightly bombed. The morale in towns subjected to the heaviest bombing was no worse than that in towns of the same size receiving much lighter bomb loads. Morale was just as poor in towns with a moderate proportion of homes destroyed as in those with a high proportion of home destruction. This was apparently due in part to the fact that the apathy resulting from the heaviest bombing made people more susceptible to the controls of the regime, and partly to the fact that those with poorer morale tended to leave the more heavily bombed cities after the early raids.

5. These observations of the diminishing returns from heavy bombing point to the practical conclusion that the maximum *morale* effects of dropping a given tonnage of bombs on Germany would have been attained by lighter raids as widely distributed as possible, rather than by concentrated heavy bombing in limited areas.

6. Civilians who suffered personal injuries or casualties in the family and/or property damage had much lower morale than those who experienced bombing but were not involved immediately and personally. Disruption of public utilities and especially of local transportation services by bombing played an important role in depressing the German people.

7. Lowered civilian morale expressed itself in somewhat diminished industrial productivity. German controls were fairly successful in keeping traditionally obedient and industrious workers at a routine level of performance, but they could not overcome increasing apathy induced by bombing.

8. "Black" radio listening and disbelief in official propaganda increased steadily during the last 2 years of the war. Even belief in the effectiveness of the much-advertised V-weapons was limited, for a quarter of the German civilians thought the whole propaganda campaign a swindle. Bombing had much to do with the final discrediting of propaganda and of the Nazis because it brought home to millions the tangible proof of almost unopposed Allied air power, indisputable proof completely at variance with the familiar Nazi propaganda. The morale effects of bombing may thus prove to have had even more importance for the denazification of Germany than for hastening military defeat.

9. German controls, particularly terror and propaganda, helped to prevent depressed morale from being translated into subversive activity seriously detrimental to the war effort. However,

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the increasingly severe terror tactics which were used to hold civilians in line, did not stamp out opposition to the regime. Death sentences (most of them for political offenses) increased sharply during each wartime year. In 1944, Germany's fifth full year of war, approximately one of every 1,200 German adults was arrested by the Gestapo for a political or religious offense. Organized opposition groups were found in most German cities. Bombing served both to aid and to hinder such groups, but our informants reported unanimously that air raids rendered people more susceptible to their message.

10. There is evidence in the Survey, which confirms previous suggestions, that the Catholic Church, the Confessional Protestant Church and certain other small religious groups constituted an important source of resistance to certain policies and actions of the Nazi regime. This was reflected in utterances and activities of the clergy and in the generally lower war morale (from the German point of view) among the laity.

11. Up to the very end of the war, meinbers of the Nazi Party, those accepting Nazi ideology, and those who had a vested interest in German victory had higher morale than did others. As might have been suspected, these factors had more to do with the determination to hold out than did any others. Confirmed Nazis were frightened by bombing, but this fear did not necessarily produce a willingness to give up. Nevertheless even the Nazis were affected by bombing and on some measures their morale suffered as great or a greater drop than did that of others. The decline, however, was never large enough to reduce the Nazi level to that of the general population.

12. The evacuation program, in general, produced widespread dissatisfaction and confusion. Of all parts of this program the evacuation of children, particularly if they were sent long distances from their families, had the most adverse effect on morale. It not only imposed the burden of family separation, but in addition made it necessary to relinquish to the Nazi party the moral and educational guidance of the children. In spite of the inadequacies of this program, however, morale probably would have been more seriously affected by bombing if there had been no planned evacuation.

13. The Germans had no accurate, quantitative data on the effect of bombing on the morale of their civilian population or on the relative effectiveness of the various control steps which they took. Neither did the Allied Command attempt to secure such data or to use the preliminary information that was available. Results from pilot studies of foreign labor, captured letters. and prisoners of war demonstrate that quantitative data regarding the effects of various kinds of bombing on German morale could have been obtained during the period of the war through scientific research techniques. Had these techniques been used and had results, such as those mentioned in item five above, been applied in guiding bombing strategy and in directing the use of propaganda in an integrated offensive with bombing, the adverse effect on German morale could have been appreciably greater, perhaps even crucial.

Methods and Procedures

The morale division had as a major objective the determination of the effect of bombing upon the willingness and capacity of German civilians to give full support to the war effort. Specifically, this includes an appraisal of the conditions under which bombing produces the most adverse effect upon morale, an evaluation of the success of the measures taken by the Nazis to minimize the morale effects of raids, and an analysis of the problems of dislocation in German civilian life resulting from bombing, such as evacuation and migration.

To achieve these objectives, the morale division obtained information from a number of independent sources, in order that major conclusions might be based upon more than one body of data. Two main sources were exhaustively utilized in this investigation of German wartime morale:

1. The most accurate and dependable body of data was obtained through interviewing at length a cross section of the German population in the American, French, and British zones of occupation.¹ These interviews were conducted by a professionally competent field force. In all, 3,711 interviews were conducted with German civilians in 34 communities during the months of June and July 1945. (See Chart I for location of sample cities.) These 34 cities and towns varied in the degree of exposure to bombing, ranging from unbombed towns to cities which had received a total. of almost 50,000 tons of bombs. Objective comparisons could thus be made between morale and the degree of bombing experience.

 $^{^{1}}$ See appendix A for a full statement on methods used in obtaining interviews.

2. Official German documents and records were sought and examined. Special attention was paid to morale reports, officially known as Stimmungsberichte or Lageberichte, which were prepared for the Nazi officials and for the Propaganda Ministry by local intelligence agents.

In addition, data were obtained from the following sources:

3. German civilian mail captured during the

war, from which a sample of 2,200 letters was analyzed in detail.

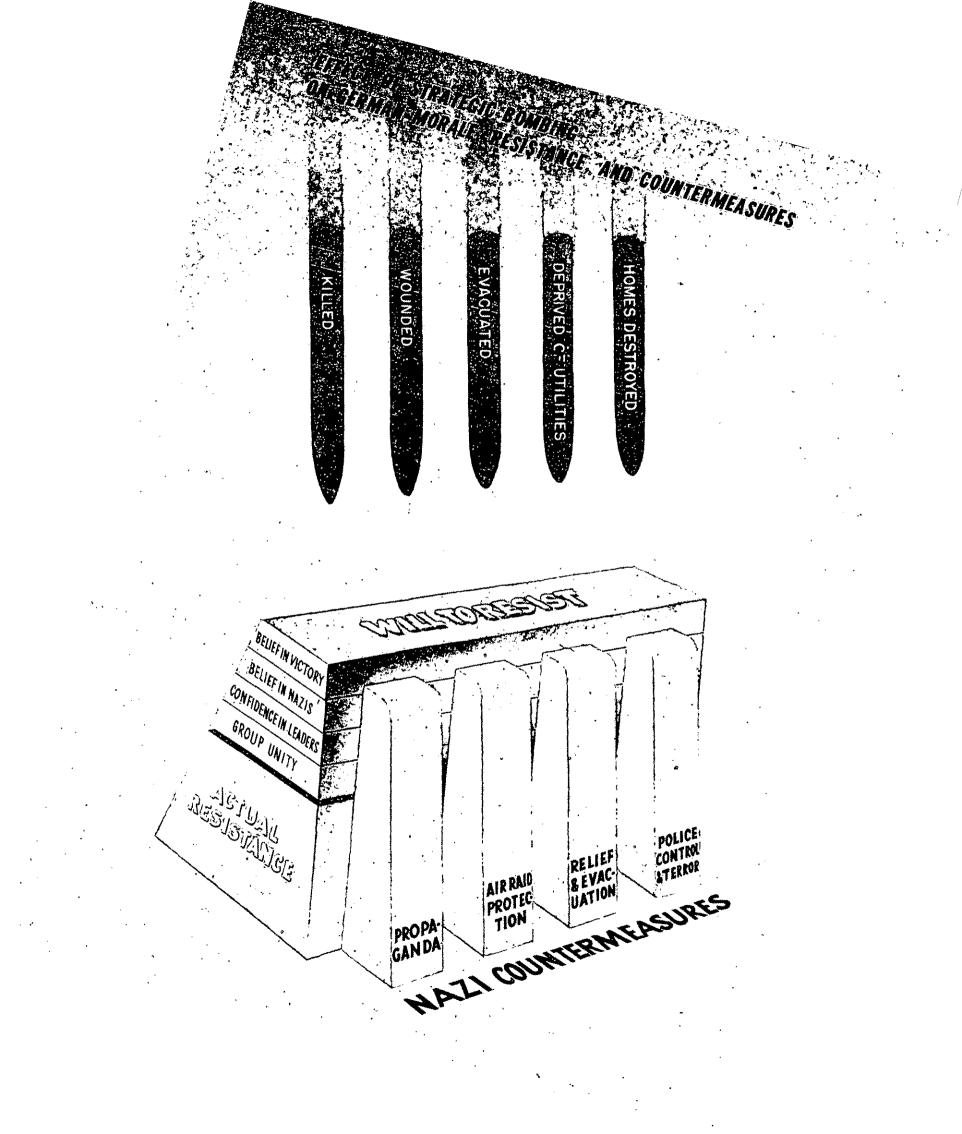
4. Written questionnaires filled out by displaced foreign workers in Germany who had experienced bombing there.

5. The questioning of French escapees in November and December of 1944.

6. The interrogation of key informants, especially community leaders.

PART I

ESTIMATES OF MORALE BASED ON INTERVIEWS WITH GERMAN CIVILIANS



CHAPTER I. THE BACKGROUND OF GERMAN CIVILIAN MORALE

"In the coming war we shall fight not only on land, on the sea, and in the air. There will be a fourth theater of operations, the Inner Front. That front will decide the continued existence or the irrevocable death of the German nation."

-Himmler, September 1937.

The Target

Civilian morale was a vital weapon in the German arsenal. The people's will to support the war was essential to German victory. German civilian morale, therefore, was an important target for the Allies.

A major factor in the final break-down of Ger-. man civilian morale was strategic bombing. It was not the only factor adversely affecting morale, but it did much to produce a mood of defeatism in the civilian population. By the end of 1944, strategic bombing had depressed a substantial percentage of the bombed population into apathy.

The reason that poor German civilian morale did not translate itself into action seriously endangering the German war effort until the latter months of 1944 and the early months of 1945 was largely due to the terroristic control of the population by the Nazis and, in part, to the cultural patterns of the German people.

The Nazi Party strove in every way to sustain morale. Whenever morale faltered or failed, every resource of Nazi control, propaganda or police, was employed to minimize the danger to the war effort.

Then, too, the stern disciplinary standards of the German people, their subservience to authority and their unquestioning acceptance of the commands of their superiors helped the Nazis in their task of maintaining at least the outward manifestations of good morale. Coupled with these were the deeply ingrained habits of work of the German people; their habitual desire to accomplish any task assigned; their will to work for work's sake. A third contributing cultural factor was the intense emotional nationalism of a people long obsessed with the specter of encirclement, led for generations to believe in the righteousness of German wars, and convinced that defeat would be calamitous.

Morale was not an easy target to knock out. It was never completely destroyed by strategic

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bombing, although its structure was seriously damaged. But during the closing months of the war, the cumulative effects of strategic bombing definitely began to outweigh the powerful Nazi forces which above all else had held the German people to the war-industry grindstone during the 2 preceding years. Poor morale did ultimately break out into widespread popular behavior imperiling the German war effort. But the actual outbreak was the result of several momentous and coinciding German catastrophes, the approaching loss of the war, the loss of German land to the enemy, the cumulative devastation and disruption of the German home front by bombing, the military, political, and economic chaos which prevailed in the wake of disastrous setbacks. It was in this combination of circumstances that strategic bombing was able to achieve its maximum morale effect. (See chart II.)

The Objective Consequences of Bombing

The psychological effects of bombing are not limited to the ordeal of the air raid. The level of morale under bombing is determined by the terror of the attack and of its immediate objective consequences in terms of civilians killed and maimed, homes destroyed, families broken up by evacuation, and utility services destroyed or disrupted. It is in this context of the total dislocation of civilian life that the morale effects of bombing must be understood. On the basis of data from the cross section survey, it has been estimated that the physical effects of strategic bombing were as follows:

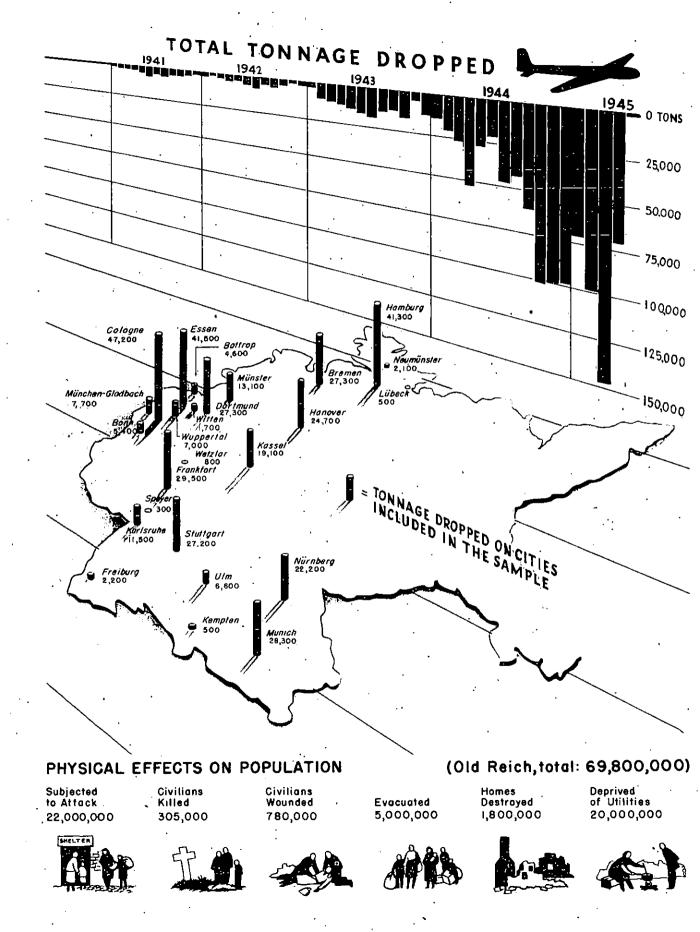
TABLE 1.—Physical effects of bombing	1 ·
Killed	305,000
Wounded	780,000
Homes destroyed	1,865,000
Persons evacuated	4,885,000
Persons deprived of utilities	20,000,000

Chart III summarizes these results.

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³ All estimates include Russian-occupied Germany. The casualty estimates are based on interviews with civilians and do not include police officials, members of armed forces, displaced persons, people in concentration camps.

BOMBING ATTACKS ON GERMANY (OLD REICH)



Casualties

Approximately 22,000,000 German civilians, or roughly one-third of Germany's pre-1939 national population of 69,800,000, are estimated to have been subjected to strategic bombing.

On the basis of 3,711 interviews providing a representative cross section of German civilians in the American, British, and French zones of occupation, the morale division has arrived at the following estimates of German civilian casualties as a result of Allied air attack upon Germany: dead, 305,000; wounded, 780,000. These figures are in substantial agreement with other estimates made by the Survey.

For the purpose of the morale division inquiry into the morale effects of strategic bombing, the final and exact casualty statistics are not essential. In analyzing the significant morale effects of strategic bombing it is necessary to make frequent reference to this approximate total of 900,000 to 1,000,000 casualties (of which 300,000 to 325,000 are dead). Unprecendented as is this civilian casualty total in terms of European air war, it is far removed from the generally anticipated total of several millions, which created an exaggerated expectation of the effects of strategic bombing upon the German civilian population during the last 2 years of the war. Of approximately 22,000,000 civilians subjected to bombing, roughly 5 percent suffered injury or death.

A related element in the background of German civilian morale was the rumor and panic in both bombed and unboinbed areas of Germany itself, which persistently expanded civilian casualty totals far out of proportion to actual fact:

"Evacuees from Hamburg have found places to stay in this area (Wuerzburg) and recount their experiences. Eye witnesses tell of a half million dead." (Morale Report of Regierungs-Praesident, Wuerzburg, 11 August 1943).

Home and Personal Property Damage

In the bombed German cities approximately 5,500,000 homes are estimated to have been damaged or destroyed, on the basis of the cross-sectional survey data.

TABLE 2.—Bomb damage to homes (dwelling-units) in Germany

•	Number of homes hit	Percent of homes hit	Percent of all homes in Germany ¹
Destroyed or damaged beyond re-	1, 865, 000	29	8
Damaged and rendered temporarily uninhabitable	1, 355, 000	20	. 7
Damaged but not rendered unin- habitable	. 2, 316, 000	45	13
Total	5, 137, 000	100	28

⁴ The total number of homes in Germany in 1942 was 18,443,000.

The Over-all Effects Division, on the basis of data obtained from the German Government Bureau of Statistics has estimated that 490,000 residential buildings were totally destroyed; or, applying the accepted conversion factor of fourdwelling units per building, that 1,960,000² dwelling units were totally destroyed.

The cross-sectional interview data indicate that personal property losses affected more than 50 percent of the 22,000,000 bombed civilians.

TABLE 3.—Personal property losses	
	Persons
Severe personal property loss	8,004,000
Moderate personal property loss	6,072,000
	<u> </u>
Total	14,076,000

Disruption of Utilities and Essential Services

The cross-sectional interviews have furnished the data for estimates of the disruption of utilities and essential services in terms of civilian deprivation of electricity, gas, water, food, and transportation to work.³ These estimates further fill in the backdrop of the objective physical conditions with which the German civilian population had to contend.

Such deprivations were in many instances temporary, but they indicate the type of civilian fox-hole existence which the urban German population was forced to endure as a result of Allied air attack for periods varying from hours to months.

³There is no available basis of comparison with Over-all Effects Division estimates of other categories of home damage, different terms of damage measurements having been used.

^{*} All extrapolated to include Russian area.

TABLE 4.—Deprivation of utilities and services

Electricity deprivation :	rsoms affected
Severe	5,766,000
Moderate	14.520,000
Total	20,286,000
Gas deprivation :	=;
Severe	12,402,000
Moderate	6,018,000
Total	18,420,000
Water deprivation:	<u> </u>
Severe	7,692,000
Moderate	10,254,000
Total	
Loss of food :	======
Severe	2,808,000
Moderate	9,108,000
Total	11,916,000
Loss of transportation	
to work:	
Severe	3,804,000
Moderate	2,994,000
Total	6,798,000

The repercussions of such deprivations both in terms of physical discomfort and in terms of morale influence could not be localized or isolated in the bombed communities. They made themselves felt throughout Germany, above all through the evacuations.

Evacuations

The vast civilian evacuations affected every facet of German morale. Evacuations began as a precautionary measure shortly after the outbreak of the war. Evacuations from the bombed and threatened areas proceeded in a more or less orderly manner until late 1943. During 1944 they became chaotic.

The evacuations had morale consequences of a physical, social and economic nature not only for the evacuees but for their hosts, for the families that were left behind and for the general morale level of both the bombed and unbombed areas. These extensive effects will be referred to in greater detail in a subsequent chapter. Here, reference is made solely to the over-all dislocation and disruption caused by evacuation.

^{*} Total civilian movement in the Reich is estimated in a Reichlevel directive⁴ of 6 March 1945 to have reached 16,500,000. The total is broken down as follows (omitting an obscure miscellaneous category):

In the East, owing to land occupation	0.070.000
by the enemy In the West, owing to land occupation	8,350,000
by the enemy	1,421,000
Owing to "Air Terror"	4,884,000

The sudden mass population flights in the closing months of the war as a result of the threatened and actual occupation of German land exceeded about twofold the total "air terror" evacuations.

But in order that its full importance may be grasped, the "air terror" movement of 4,884,000 must, in great part, be related not to the entire duration of the war, but exclusively to the last 21-months, between June 1943 and March 1945. Prior to June 1943, both precautionary and postraid evacuations had not exceeded 1,000,000.

The disruptive effects of such mass movement and migration of almost 5,000,0000 civilians are impossible of statistical calculation by the very nature of the chaos that accompanied them. The evacuations produced economic and administrative disruption of German civilian life, which may be classified under three broad headings:

1. The physical and economic burden.— Civilian services and the civilian economy were widely affected by the problems entailed in the evacuation of 5,000,000 adults and children.

(a) Strain on transportation.—In addition to the overwhelming problems of evacuation from the bombed and threatened areas, concessions had to be made to the widespread transportation demands arising from the evacuees themselves: civilians insisted on revisiting their children dispersed in distant reception areas;-workers insisted on visiting their evacuated families; in some cases evacuees wilfully returned to their homes and had to be re-evacuated.

(b) Insufficiency of available housing in many areas.

(c) The impingement of evacuations upon necessary recreational facilities.

(d) Evacuation-wrought problems of food distribution and rationing. Evacuation upset the balance of food, and food crises were created in previously immune areas.

(e) Strain on medical and community services in both bombed and unbombed areas.

2. The vast complex of disruption resulting from regional, cultural, and/or economic differ-

^{*} Captured document, photostated MIRS, London, No. PH-133.

ences between evacuees and their hosts.—These introduced new elements of friction into the machinery of communities.

3. Strain on governmental coherence and organization, and on the Nazi Party, in maintaining civilian order.—The administrative problems of the mass evacuations were not met by the Party with one consistent, clearly defined policy. This led to an intensification of bureaucratic confusion, and to turmoil in German civilian life. * * * • •

These are the broad outlines of the dislocation and disruption which strategic bombing produced in the crucial aspects of German civilian life in casualty tolls, in house damage, in deprivation of essential needs and in all phases of civilian evacuation. It is against this background that the morale effects of bombing must be considered.

No matter what aspect or measure of morale is considered, the major finding is that bombing definitely depresses morale. The will to resist, as reflected in such attitudes as loss of confidence in leaders, willingness to surrender, and a weakened desire to continue the war, shows these effects. The behavior of German civilians also yields evidence that bombing depresses morale. The main psychological effects are defeatism, depresssion, despair, fear, helplessness, fatalism, and apathy.¹ The popular notion that bombing stiffens the resistence of a people finds little confirmation in the facts of German experience. It creates some anger and hatred and at times a temporary increase of determination, but the aggressive emotions of rage and anger have no ready outlet against the enemy. They tend to be directed against the Nazi leaders or to be dissipated and replaced by dejection and apathy.

Methods of Studying Morale

The will to resist, i. e., psychological morale, has many dimensions and can be measured at various levels. One of the measures of great practical importance is the estimate of the individual's willingness to surrender. Of critical significance is belief in the probability of victory or defeat. Intellectual conviction about the cause for which the individual struggles and emotional identification with the cause are of prime importance. Confidence in leadership is also essential for good group morale. Group unity, the feeling that all elements in the population are bearing their share of the burden, is another measure of morale. Finally, the psychological health or demoralization of the individual must be taken into account.

There are several ways in which an individual's attitudes and feelings manifest themselves in behavior and thus yield evidence of his *behavioral morale*. It is possible to study absenteeism records, to secure estimates of the incidence of suicides, to observe the amount of crime and black market activity, as well as subversive and oppositional activity aimed directly against the government.

Each of these facets of the morale of German civilians will be reported and, in addition, estimates of general morale will be based on the combined information from all these sources. These combined measures have been arrived at by two methods: (1) In a sample of 500 cases each interview was read as a whole and all the relevant comment taken into account as a basis for over-all codes, including a judgment of morale. (2) Certain responses coded in the separate morale measures were selected as indicative of high and low morale and credit assigned where such responses appeared. These credits were added to obtain a morale index for each of the respondents interviewed.

The effects of bombing on morals are investigated by two methods. The first involves an analysis of what people said about the effects of bombing, and the second makes objective comparison of how morale differed among the people who suffered various degrees of bombing. In general, these different procedures yield conclusions that are consistent even though the actual figures obtained by different methods may not be identical. It is important to keep in mind, however, that the morale differences between the bombed and the unbombed tend to understate the total effects of bombing. This is due to the fact that the news of bombing and its consequences reached the whole population and led many to fear that they would be involved sooner or later. Moreover, the inconveniences of evacuation and of housing evacuees were experienced by both the bombed and the unbombed. Evidence of such indirect effects comes from a number of the direct questions on bombing.

In interpreting the results of this and subsequent chapters, certain facts about the interview material must be kept in mind. In the first place, it is to be noted that two different sets of questions (listed in full in appendix A) were used in the civilian interviews. Schedule A consisted of direct questions about bombing and was used only with those who had had bombing experience. Schedule B was composed chiefly of general questions about the war and problems which arose during that time with a few direct questions on bombing inserted at the end of the interview. Persons asked the questions in schedule B came from both bombed and unbombed areas. No

¹ Though in general the effect of bombing is to lower morale, the degree to which it is lowered and the exact nature of the depressant effect vary in relation to the amount and pattern of bombing. These more detailed considerations are treated in later chapters.

respondent was interviewed on more than one schedule. As a consequence of the difference in approach of these two questionaires, the percentages of people answering in a certain way may be different even when the questions appear to be similar. So where differences appear in the results of schedules A and B, it must always be recalled that the answers in schedule A were given in a context emphasizing raids. In all cases, therefore, the absolute level of the percentages obtained must be interpreted in the light of the questions asked and the total interview situation. This means that more reliance can be placed on the relative comparisons between the proportion of persons who give certain responses than in the actual percentage levels. For example, there is less ambiguity attached to the finding that bombing ranked above food shortage in frequency of mention as a wartime hardship than to the fact that 91 percent of people mentioned bombing as the greatest hardship. Similarly, the actual percentage of persons reporting that they were willing to surrender would doubtless vary with form of question and context. But a fairly straightforward comparison may be made between percentages willing to surrender among the bombed and unbombed, when the same question is asked both groups.

Over-all Evaluation of German Morale Under Bombing

An evaluation of German morale under bombing must take into account the complexities of the total war situation, the initial level of German morale at the start of the war, the effects of military events other than bombing, personal losses and privations, and morale fluctuations as the war progressed.

The application of one method of over-all evaluation was made by securing judgments of psychologists and social scientists on 500 interviews with German respondents.² These interviews were selected from the cross-sectional study of German civilians in the British, French and American zones of occupation and were chosen to be representative of this population. The interviewing was not conducted in a context of interrogation about bombing. Respondents did not know the real purpose of the interview and were encouraged to talk about their present problems, their expectations, their hopes and fears during the war, the events and factors which first led them to believe the war was lost. Questions about bombing appeared only toward the end of the interview.

These over-all judgments give the following picture of German morale at the beginning and end of the war.

TABLE 5.—Over-all	judgments of	f German	morale
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	Percent of German population	
	Beginning of war	End of war
	Percent	Percent
High morale	32	6
Medium morale	51	16
Low morale	17	78
Total	100	100

Thus, at the start of the war, only 17 percent of the Germans regarded the war as a mistake or as a hopeless cause. One-third had high morale and one-half had fair morale. As the war progressed, morale declined. The high morale group dropped to 6 percent, and the moderate morale group lost almost all of its original numbers. The great change in the morale of the German nation is an indication of the completeness of the German defeat in World War II.

The causes of this fall in morale are complex, but the relative weight of factors of primary importance follows:

TABLE 6.—Main	reasons	for	morale	dccline 1	
---------------	---------	-----	--------	-----------	--

	Percent of
(German population
Military factors other than bombing	
→ (including two-front war, Allied superio	ority) 44
Bombing	36
Personal losses	13
Internal events (dissension, bomb plot, et	te.) 7
- Tota)	100

⁴The information in this table was obtained by over all coding of the 500 interviews used for table 5. Each interview was read to determine factors which appeared to have caused a decline in morale.

One out of three Germans gave indications that his morale was more affected by bombing than by any other single factor. Bombing was second only to military factors as a primary morale depressant. For 45 percent it was adjudged the

² Schedule B interviews were used as a basis of these over-all judgments. See appendix A for a description of schedules A and B and of the basic plan employed.

secondary contributory cause of reduced morale in 70 percent of the cases.

It is worthy of note that no instances were found in which bombing permanently raised morale and in only 2 percent of the cases was there a temporary rise. If information had been obtained at the time and if time changes could be assessed in greater detail, more temporary increases might be registered. But in spite of the belief in the efficiency of bombing for raising morale, it is difficult to demonstrate this effect in even a small fraction of cases.

The German people themselves gave an overall evaluation of bombing. In the cross-sectional study they were asked: "What was it that was hardest for the German civilians during the war?" Their answers appear in the following table:

TABLE 7.-Wartime hardships

	Percent of . German population
Bombing	91
Food shortages	
Deaths of family members in Army	5
Shortages (other than food)	
Family separation	2
Loss of freedom	2
Nazi injustices	2
	<u> </u>
Total	1 115

⁴ Percentages add to more than 100 percent because some people gave multiple answers. Based upon 3,711 interviews.

The most onerous burden for German civilians during the war was bombing. That many Germans who had personally experienced its terrors should feel this way is to be expected, but bombing came to mind nine times as often as any other problem. People gave their answers, moreover, in an interviewing situation in which no previous reference had been made to bombing.

Germans in unbombed and lightly bombed towns, as well as in heavily bombed towns, agree that the heaviest trials on the domestic front were the air raids. People in the heavily bombed areas approach unanimity in this judgment (94 percent). Even in the unbombed areas 88 percent were of this belief. The psychological shock of the raids thus exceeded their physical reach.

Specific Morale Measures

War Weariness and Willingness to Surrender

War weariness was common in Germany long before the Rhine crossing. How much of it can be attributed to bombing? And in how many people did it reach the point of wanting to accept unconditional surrender?

Official German intelligence reports on morale. prepared for the Propaganda Ministry and other Nazi officials are revealing. A March 1944 security service report from the Munich region states:

Morale has reached a new low such as has not been observed since the outbreak of the war * * *. Among the masses, sayings are common such as: "The wagon has gotten off the track. It got stuck in the dirt." "One ought to make an end, for it cannot become worse than it is now" * * *. The air terror continues to be the crux in the holding of morale * * *. With people who suffered total loss of property, the feeling prevails that their losses can never be replaced, even if Germany should win the war * * *. The heavy destruction in Augsburg had a particularly severe effect on morale.

The growing desire of the German people for an end of the war and of the bombing terror became a constant concern of German intelligence, to judge from the frequent references to it in the morale reports.

That the Nazi officials had good reason to worry about the state of German morale is clear from the findings of the cross-sectional study in which a representative sample of civilians was interviewed. The German people were asked:

Did you at any time during the war ever come to a point where you simply did not want to go on with the war?

Their answers follow:

TABLE 8.—Breaking point of morals

Percent of
Garman population
Never wanted war in the first place 13
Yes, did not want to go on: 58
Point reached before January 1942 4
Point reached between January 1942
and January 1944 15
Point reached between January 1944
and July 1944 4
Point reached between July 1944
and January 1945 5
Point reached between January
1945 and end 4
Point reached, no time specified
Never reached point of want to give up 24
Point reached, but recovered desire to go on 5
·
Total

Thus the majority of Germans had reached the point where they did not want to go on with the war before the end of the conflict. One-third definitely did not want to go on before the invasions of the Continent. Twenty-six percent reached the point of not wanting to go on, but did not specify the approximate time of their decision. On the other hand, 29 percent either never thought of giving up or recovered from such un-Nazi like ideas.

How much of this defeatism can be traced to air raids? In communities that suffered air raids the most important single factor in producing war weariness was bombing. Though two different methods were used in the survey to assess the effects of bombing, the findings are the same. The one procedure is indirect, involving the objective comparison of people in bombed and unbombed towns on the question of not wanting to go on with the war. The other procedure is the direct questioning of bombed people about the effect of bombing upon their morale.

The objective comparison from the indirect approach shows that the more heavily bombed the area, the more people there are who wanted the war to end. The question, "Did you at any time during the war come to a point where you did not want to go on with the war?" was answered in the affirmative by the following percentages of people in each group.

Table 9.—War weariness	and amount	of bombing
		Percent
Unbombed towns	•••••	
Lightly bombed towns		
Moderately bombed towns	· · · · · · · · · · · · · · · ·	
Heavily bombed towns	••••	60

The second procedure in which a separate crosssection of bombed people was asked directly about their experiences confirms these results. In bombed towns, the sample answering the A schedule was given the same question about war weariness, save that they were asked to relate it to the air raids. The answers fall into several categories.

These direct statements by Germans on the effect of bombing upon their war morale are strikingly like the results obtained from the indirect approach. When individuals were asked to report on their own subjective experiences, 60 percent said they did not want to go on with the war because of bombing. A considerable number in this group gave specific reasons such as the

TABLE 10War weariness	and air raids

TABLE 10.—War ideariness and a	ir raias
,	Percent of Derman population
War-weary from bombing	60
General	23
After casualties from raids among	
friends and relatives	2
After repeated raids and increased	
tempo of attacks	13
After loss of property	3
After first raid	3
Because of difficulties of living	
under air raid conditions	1
But nothing we could do about it	15
Yes, but got over it	2
Never wanted war in first place	
No, not war-weary	22
Total	

death or injury of friends or relatives in raids, the destruction or damage to their property and the increased tempo of the raids. Another group, 16 percent, were war-weary but they did not ascribe their low morale to the air raids. About one-fifth contended that they had never reached the point of wanting to quit.

The two methods of ascertaining German morale under bombing strongly corroborate one another. The dominant reason for civilian war weariness, as ascertained by both the indirect and direct approaches, is bombing.

An additional supporting bit of evidence is found in the B schedule. In this schedule, people were asked about war weariness without reference to bombing, but those who admitted war weariness were then asked what brought them to the point of wanting peace. They gave the reasons appearing in table 11.

TABLE	11.—Reasons	for	10ar	10cariness
-------	-------------	-----	------	------------

	Percent of people in un- bombed towns	Percent of people in bombed towns
Bombing. Personal (loss of family member at front.	32	50
personal bardship, cruel treatment by Nazis, etc.)	24	18
fidence in leaders)	44	38
Total	001	100

It is possible for people to reach a point of not wanting to go on with war and yet be unwilling to accept unconditional surrender. In Germany, however, war weariness was at such a level that more than half of the civilian population was ready to accept unconditional surrender before the end. The effect of bombing is objectively demonstrated by comparing the reactions of German people in bombed and unbombed areas. Six percent more people in bombed than in unbombed towns were willing to surrender. However, when compared with other data obtained in the interviews, it is clear that this relatively small difference understates the effectiveness of bombing.

This is true principally because bombing depressed morale in unbombed towns, as well as in places actually bombed, and this fact does not appear in comparisons of towns suffering different amounts of bombing. All of the unbombed communities had repeated alerts and many expected that sooner or later they would be the target. Moreover these people had heard much about the devastating consequences of raids from the evacuees in their midst. These indirect effects are reflected in the fact, already reported, that SS percent of the respondents in unbombed towns said that bombing was the hardest thing civilians had to bear. Only 4 percent more (92 percent) in bombed communities made this statement.

TABLE 12.-Willingness to accept unconditional surrender

	Percent of people in un- bombed towns	Percent of people in bombed towns
Willing	51	1 57
Unwilling	13	1
No personal admission of willingness but thinks surrender inevitable Indifferent, never heard or thought about	20	18
unconditional surrender	16	16
Total	100	100

¹Six percent more people in bombed than in unbombed towns were willing to surrender. This relatively small difference understates the effectiveness of bombing.

These findings agree with the reports of displaced foreign workers who had been imported into Germany for forced labor. Schedules filled out by over 2,200 such displaced Russians, Italians, and French give independent accounts of German morale.³ The great majority of Russians (S4 percent), of Italians (75 percent), and of French (71 percent) say that the Germans they knew came to believe, as a result of bombing. that they couldn't continue with the war.

Belief in German Victory

By the beginning of 1944, three-fourths of the German people regarded the war as lost. Only 8 percent were "bitter-enders" who still felt in the spring of 1945 that Germany would win. Another small group (16 percent) thought the German cause hopeless from the start. The military events of late 1942 culminating in Stalingrad, the North African reverses, and the mounting air offensive of 1943 convinced the Germans that the tide had turned irrevocably.

TABLE 13.—When did Germans regard the your as lost?

	Percent of German population	Cumulated percentages
From the beginning	16	10
Botween outset and January 1942	22	38
Between January 1942 and January 1944	39 -	77
Between January 1944 and July 1944	8	85
Between July 1944 and January 1945	7	92
Between January 1946 and May 1945	6	98
Never reached until surrender	2	100
(Tota)	100	

German civilians, when asked in an interview (Schedule B) in which bombing had not yet been mentioned, said that they came to the conclusion the war was lost for the following groups of reasons:

TABLE	14.—Rease	ms for	thinking	war losf.	•
				Percent of Gorman popule	
Military reve	rses			48	
Allfed superi	ority		• • • • • • • • • •		
Air raids					
War shortage	es		· · · · · · · · · ·	2	
Miscellaneous	5				
Total				100	

Air raids in themselves were mentioned less frequently than military reverses and Allied superiority, but in talking of military reverses, reference was sometimes made to German air weakness. The differences between the peoples of bombed and unbombed areas in their reasons for believing the war lost came in the categories of military reverses and Allied superiority. The bombed people spoke less of military reverses and more of Allied superiority. In fact, bombing aided greatly in producing conviction of Allied

^{*}See vol. 11, ch. 3 for details of this study.

superiority. Both the severity of the raids and the passage overhead of fleets of Allied planes impressed the German people with the huge arsenal they were opposing. Official German morale reports repeatedly call attention to the inferences the German people were drawing from witnessing planes flying overhead, unmolested, during the day. A captured German letter repeats a German saying to the effect that the German people are now forbidden to look up into the skies since they have become exclusive Allied property.

The question about the effect of bombing on the outcome of the war was raised directly by asking the respondents, "Did your opinions of the war change when the air raids didn't stop?"

The answers fell into the following groups:

TABLE	15Effect	of	air	raids	on	opinion	about
	01	utc	этө	of wa	r		

	Porcent of German population
No, still believed in German victory	15
No, already knew Germany couldn't win	33
Nes, lost hope in German victory	. 43
Yes, raids plus other events led to loss of	υť
hope in German victory	
Opinion fluctuated	1
	<u> </u>
Total	. 100 .

Though a small group still believed in German victory and others gave qualified answers, the largest single group (43 percent) said they lost hope in German victory when the air raids didn't stop.

Certain apparent inconsistencies between tables 13 and 15 need comment. In the former it appears that by January 1944, 77 percent of German civilians believed the war was lost. In table 15, 43 percent said their opinions on the war changed and that they lost hope in victory when the air raids didn't stop. Since the bulk of the raids came after January 1944, it may seen that more people lost hope as a result of raids than had hope before the intense raids occurred. The first point to be made is that many heavy raids did occur and could have been involved in the loss of belief in victory before January 1944.

Furthermore, the question on raids (table 15) was asked on schedule A, while the question about timing of the loss of belief in victory (table 13) was asked on schedule B. No reference to bombing was made on this schedule until the very end. Schedule A, on the other hand, dealt largely with reactions to bombings. Hence, the answers shown in table 15 were given in a context which made the respondent emphasize raids and their effects. The results should not be taken to mean, therefore, that 43 percent lost hope only because of raids; although that proportion volunteered nothing in addition to the reference made to raids in the question itself. It can only be said that 43 percent, when questioned directly, believed that raids played a major part in their loss of hope.

Actually, it is clear that "losing hope" is not an easily defined concept and that it may be accurate psychologically to report that hope for victory was "lost" by January 1944 and that it was also "lost" after that because air raids didn't stop.

This is partly because of the fluctuating character of belief and hope and partly because it is actually true that people may experience what seems to them absolute despair or loss of hope at one time to find later, in a more devastating experience, that they did not know the nature of real despair. "Lost hope" then cannot be taken as an absolute zero point.

Confidence in Leadership

Confidence in leadership is necessary for good group morale, whether the group is democratic or authoritarian in nature. The representative sample of Germans was asked:

Was your leadership as good as you had expected? * * *. Is that your opinion for both the political and military leadership? * * *. How did you think about this shortly after the beginning of the war?

About one-third of the German civilians did not distinguish between the competence of their political and their military leadership. Of this undiscriminating group, 60 percent now definitely say that their leadership was incompetent. Of the larger group who distinguish between political and military leaders, 9 out of 10 condemn the political leadership as incompetent, but only 1 out of 3 is willing to pass equally harsh judgment on his military leaders.

The large measure of confidence enjoyed by the Wehrmacht boomeranged in its morale effect when it became known that the group in which there was less confidence, the Nazi hierarchy, was making military decisions.

The lack of confidence in Nazi leadership is further evidenced by the division of the German people on the question of whether the leaders wanted what was best for the people. Somewhat over one-third were emphatic in denying that their leaders had the interest of the people at heart. Only one-third were firmly convinced of the sincerity of their leaders. Thirteen percent volunteered the information that they trusted their leaders in the beginning of the war but not at the end. Three percent were still so loyal to Hitler that they spontaneously differentiated between him and other German leaders.

Bombing had a decided effect upon the trust people placed in their leaders. In unbombed towns there was less questioning of the motives of the leaders.

TABLE	16Confl	idence	in	lcaders
-------	---------	--------	----	---------

	Percent of people in un- bombed towns	Percent of people in heavily bombed towns
Leaders had best interests of people at heart		48
Leaders did not have interests of people at heart	31	42
Qualified opinion or don't know	. 7	10
Total	100	100

Some Germans in speaking about their air raid experiences told of their resentment of their leaders during a raid. In 12 percent of the cases, such comments as these were volunteered: "I felt we have only the Nazi to thank for this," and "In the bunker, people cursed the Fuehrer."

Equality of Sacrifice

Group morale is predicated upon group solidarity. When people begin to feel that others are bearing a lighter part of the burden, their morale is affected. German civilians in heavily bombed communities resented the good fortune of their countrymen who had not been bombed. Many people in the Rhineland, for example, were pleased when the bombs began to fall upon Berlin. The reaction in Krefeld, a Rhineland town which had been bombed early in the war, was summarized by the security police intelligence report on 24 January 1943, as follows:

The news of the bombing of the capital has been the talk of all parts of the population. Without exception especially great satisfaction that the loud-mouthed Berliners have at last got it again, could be noted in all converention. The articlection desires from the feel ing that Berliners are said to have shown little understanding thus far for the suffering of the population in the Rhineland. There was veritable indignation that after this one light attack on Berlin retaliation attacks were immediately launched against England, while after raids that destroyed at least parts of such cities here as Cologne, Duisburg, Dusseldorf, and Mainz allegedly no plane was made free from the eastern front for such a retaliation attack. It is hardly possible to reproduce the number of statements of this sort. Frequently it could be heard said that it would be fine if the British flew more frequently to Berlin so that the inhabitants there would get a taste of how we in the west are feeling. People are very curious as to whether the population of greater Berlin will get extra. coffee rations for this trifling attack. One often hears it said that the whole thing proves unequivocally that we in the west are regarded as second class people and that the whole Rhineland has already been written off.

A majority of Germans felt that their own group was harder hit by the war than other groups, and this feeling is more in evidence in bombed than unbombed communities. The question asked was:

How did people of your circumstances get along in comparison with other groups of German people?

German civilians replied as follows:

TABLE 17.—Feeling that people in his circumstances got along worse

	Percent of people in un- bombed towns	Percent of people in bombed towns
Our group got along worse	49	57
Got along better or same	51	43
Total	100	100

The two main reasons which people gave for faring worse than others were: as nonparty members they were discriminated against and, as workers or poor people, they had a harder time than the well-to-do.

Psychological Impact and Demoralization

The multiple morale effects of bombing have thus been established objectively by comparing bombed and unbombed areas. The direct impact of air raids needs also to be considered, for obviously bombing presents all the traumatic conditions of front-line warfare, a warfare which strikes at the whole population.

In the cross-sectional study in which people were asked directly about their experiences during raids, most of them talked freely about the psychological effect of the raids. More than one respondent, however, broke down and wept and could not go on with the interview when recalling the experiences under bombing. An interviewer notes the reaction of one woman:

Twice during the interview some sort of explosive went off in the vicinity and the respondent jumped out of the chair both times with extreme fear in her expression. Even though the war was over now for almost a month and the last raid was 3 months before, she winced when she heard an airplane motor outside.

The reactions of bombed people fall into the following major categories in terms of fear and upset:

TABLE 18.—Degree of fear and upset
Percentage of According to population
Severe upset, intense fear nervous collapse ("My nerves were gone," "Can't even talk about it,"
"After that always afraid.")
Temporary or less severe fright or upset
Little or no fear or upset 22
Description of fearful events
Total

More than one-third of the people going through a big raid suffer relatively permanent psychological effects, that is, the terror transcends the immediate raid to such an extent that it is reinstated by the next alert. Many examples can be cited to show the emotional shock of the raids. One woman gave this account of her experiences in her first big raid:

I saw people killed by falling bricks and heard the screams of others dying in the fire. I dragged my best friend from a burning building and she died in my arms. I saw others who went stark mad. The shock to my nerves and to the soul, one can never erase. I can never forgive the Allies for bombing the purely residential section where innocent women and children were killed by the thousands.

Another woman told of the death of her husband:

It was in March 1944, the first large raid on Ulm. My husband was at his job at the auto works and had raid duty when a phosphorus bomb fell directly on him. He burned like a torch. His nerves were burned all along his back. It was terrible pain that he had to suffer before he died.

So frightful was the ordeal of air raids that when Germans were asked in June 1945 how they were faring under the occupation, many expressed little reaction to their defeat and occupation, but talked mostly of their relief that the war was over and the bombings had stopped.

The harrowing fear and strain that bombing produces in people is also illustrated in the study of captured German mail.⁴ These letters written by German civilians to their friends and relatives in the Wehrmacht are authentic and spontaneous expressions of the feeling about air raids. If anything, they are minimal expressions because the writers may have feared German censorship or may not have wanted to worry members of their families at the front. Moreover, they were written at the time of air raids and are not as retrospective as the interviews. These letters corroborate the findings of the cross-sectional interview study at many points. They show particularly a lowered morale among people in bombed areas which takes the form of anxiety, nervous upset and the general tension and insecurity. Instances of these effects appear in the following excerpts from captured letters.

A woman from Dresden wrote in October 1944:

If only the planes would leave us alone. We have alarms very often mostly during the day. Believe me we are trembling. The fright from the last time is still in our system. From sheer fright we do not often dare to go to town.

A letter written in September 1944, from Oldendorf:

No human being can imagine the things that happened at the railway station of

⁴See vol. II, ch. 2 for the report of this study.

Cologne * * *. I could just go crazy. I feel that we will never see each other again.

A letter from Herten in October 1944:

We had an alarm at noon today again. For the last ten days, I have been tremendously frightened. As a result of all of it, I'm very tense and nervous and suffer tonight again from my nerves.

A woman war worker in Hamburg in July 1944:

So far I'm all right, momentarily we have a terrible attack behind us. Kiel was the target. You may well imagine the fright I experienced. For days and nights we are on duty and soon I shall not be able to stand it any longer. I believe that in time I shall collapse.

Adaptation to Air Raids

Soldiers learn to live in fox holes and some people manage to adapt to air raids. But the majority do not become adapted to bombing.

UABLE 19.—Adaptation to further raids

	Percent of German population
Became adapted	. 36
Did not adapt	. 52
No change (always frightened) 2	4
Feared them more and more 2	
No change (never had any fear)	. 6
Depended (on circumstances and raid)	. 6
Total	. 100

People who did not become habituated spoke in such terms as:

How could we get accustomed to them? * * *. We feared them so much we only wanted the end of the war.

One can't get used to the raids. I wished for an end. We all got nerves. We did not get enough sleep and were very tense. People fainted when they heard the first bomb drop.

I never became accustomed to the raids and bombing. I don't think anybody did. I was always afraid and shaking and nervous.

Some of the people who adapted gave these comments:

I got used to them and then they didn't bother me, but I did always seek shelter.

I got rather used to those raids. After all I could not do any more than die.

I became accustomed to them because they came so frequently, but with each attack there was the same terrible fear.

Frequency of raids was of much less importance in its effect upon subsequent reaction to bombing than the experience of the first raid. Of those badly frightened by the first raid, 48 percent showed continued fear. Of those frightened a little, 29 percent showed continued fear. Similarly, the number of raids experienced by displaced persons made only a slight difference in the proportions of those who became habituated to bombing.

TABLE 20.—Habituation and frequency of raids Percent of displaced persons reporting hubituation

Frequency of raids:	
5 raids (average)	66
29 raids, (average)	73
73 raids (average)	73

It will be noted that while only one-third of the German civilians adapted to bombing, a considerable majority of displaced foreign workers became habituated to air raids. This difference can be accounted for by the different outlook of foreign workers. For them increased bombing meant liberation; for the Germans it meant defeat.

Blame for the Allies

A great deal has been said about the hate engendered by the raids. When Germans were asked, "Did you blame the Allies for air raids?" approximately one-third of them said definitely "yes" and about half said "no" without any qualifications.

Of those who indicated that they did not blame , the Allies, between one-quarter (B) and a third (A) expressed the opinion that, "This is war and such things are to be expected." About threefifths of this group not blaming the Allies, said

TABLE 21.—Percent of persons blaming Allies

	Schedule B	Schedule A 1
	Percent	Percent
No Blame	-48	58
Blame	38	32
Qualified	14	10
Total	100	100

¹ See appendix A for description of schedules A and B.

that bombing was to be expected because the Germans had done the same thing. Of the groups blaming the Allies, 11 (B) to 13 percent (A) were abusive and expressed deep hate and anger.

It will be shown in chapter 3 that the attitude of blame bears no consistent relation to bomb weight. In fact the percentage of persons expressing resentment is practically the same for the unbombed as for those most heavily bombed, when the sample is taken as a whole. Only the Nazis show a consistent increase in blame as bombing increases.

CHAPTER 3. MORALE EFFECTS PRODUCED BY DIFFERENT BOMBING CONDITIONS

The depressant effects of bombing upon morale are so marked that they can be observed in almost all phases of civilian willingness to wage war. The critical question, however, is the problem of what conditions of bombing are productive of the greatest adverse morale effects. In this chapter, the following aspects of bombing are examined in relation to morale changes: (1) the total tonnage of bombs dropped, (2) degree of city destruction, (3) personal involvement or exposure to raids, (4) deprivations caused by bombing, and (5) day versus night bombing.

Since chapter 2 has already presented the evidence that bombing affected the morale of people who did not actually experience any raids, this matter is not considered in the present chapter. When comparisons are made between morale of the bombed and unbombed, however, it must be remembered that the differences in these groups do not reveal the full effects of bombing upon morale, because the unbombed were themselves affected. This comparison only serves to show the relation between morale level and the amount of bombing suffered.

Summary

Bomb Weight.—In general, morale declines as bomb weight increases, but this effect is not proportional to the total tonnage delivered on a city. The greatest rate of decline in morale tends to occur between unbombed towns and those subjected to total average bombing of about 500 tons. There is some further decline when bombing is stepped up to 6,000 tons. There is very little change or, in some cases, slight improvement in morale as a result of increasing bombing up to 30,000 tons.

These observations point to the conclusion that the maximum effect on *morale* of dropping a given weight of bombs would be attained by widespread bombing rather than by concentrating on a limited number of areas.

This diminishing effect of increased bombing probably resulted from a combination of the following factors:

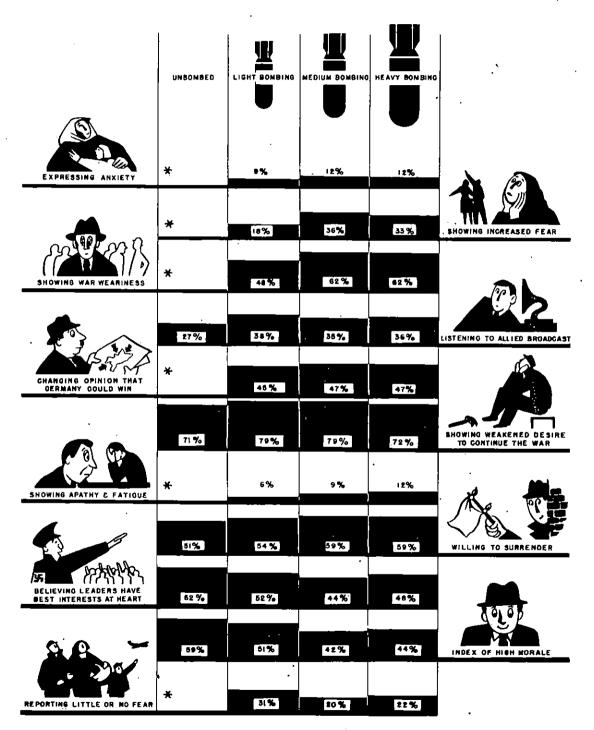
The cities undergoing great raids lost a considerable part of their population through evacuation, and these evacuees were probably people who had suffered severe consequences of raids and who had low morale. The absence of such persons in heavily bombed cities would improve the general morale level and retard the appearance of a further morale drop in these cities.

There is some evidence for the notion that severe raids increased apathy among the population. Under these conditions, resentment against leaders, which was stimulated by light bombing, might give way under heavy raids to preoccupation with personal matters, apathy and reduced interest in political affairs. In a police state with totalitarian controls, such apathy may be considered good morale, since people in this state of mind are more easily manipulated and controlled. Such a situation would result in arresting the decline in morale at high levels of bombing.

The suggestion has been made that increased bombing stiffens resistance by creating bitterness and anger against the Allies. The evidence does not support this explanation of the diminishing effects of heavy bombing.

The question is asked whether increased bombing breaks down morale because more people suffer direct personal experiences, such as losing their homes or family, interference with health, or disruption of public services, or whether there is also a morale effect on those who are not personally involved in any serious way. The answer is that, even when the influence of personal involvement or deprivation is ruled out, stepped up raids tend in general to depress morale. Under these conditions, the group which escapes personal disaster shows the greatest loss in morale when lightly bombed or unbombed towns are compared with moderately bombed, but the people who have suffered directly are relatively less affected by an increase from light to moderate bombing. Severe personal losses, even in a lightly raided town, depress morale so greatly that the added effects of moderate raids are relatively less marked.

Personal Involvement.—When personal involvement, in terms of casualties in the immediate family or property loss, is taken as a



¥ No measure was made on this variable in unbombed cities

measure of the severity of raids, there is a marked decline in morale as the degree of involvement increases. There is little evidence of diminishing returns and no tendency for morale to improve at the level of greatest personal involvement. Personal involvement is clearly the most sensitive measure of the severity of raids for the individual, and is more closely related to changes in morale than the other measures reported.

Deprivation.—If severity of raids is estimated in terms of deprivation of food, utilities and services, again morale declines as the raids become more severe. Here the drop in morale slows down or actually improves when deprivation is high. In other words, diminishing effects appear just as they do when tonnage is the measure of the severity of raids.

City Damage.—Cities were classified on the basis of estimates of the percentages of homes and buildings destroyed. Morale is shown to decrease as the proportion of destruction increases, and again diminishing effects appear when the raids are most severe.

Night Versus Day Raids.—Night raids are regarded as worse than day raids.

Weight of Bombs Dropped

The cities in the sample were divided into four groups on the basis of the total average tonnage of bombs dropped during the war.¹

TABLE 22.-City groups by bomb tonnage

	A verage tons per city	Range of tormage for cities in group
Group I Group II Group III. Group III. Group IV.	0, 100 500	19,100-47,200 1,700-13,100 300- 800

²Unbombed.

For schedule A, the interview form used only for bombed people, comparison's must necessarily be limited to the first three groups. For schedule B, given to respondents in both bombed and unbombed cities, comparisons include all four groups. The morale of these groups with different bombing experiences will be compared. Chart IV summarizes the results.

Fear and Fright

Individuals in the first three groups were asked about their experiences and feelings at the time of the first big raid on their town. No differences are found in the amount of intense fear reported by respondents, but there is a marked tendency for the percentage of persons showing little or no fear to be highest in the cities of group III, where the bombing was lightest. Groups I and II, with heavy bombing, show essentially the same incidence of fear.

TABLE 23.—Percent of persons showing little or no feat (schedule A)

Group I: Heavy bombing	1 <u>22</u> %	2 (525)
Group II: Medium bombing	20	(297)
Group III: Light bombing	31	· (93)

¹The percentages in the tables of this chapter do not add to 100 percent because the base of the percentages is different in each bomb group. So, in the first row of table 23, 22 percent of those who experienced the heaviest bombing (group 1) reported that they experienced little or no fear. Twenty percent of those suffering medium bombing showed little or no fear, etc.

² Figures in parentheses, in this and all other tables in this chapter refer to numbers of respondents.

A similar finding appears in the evidence on specific anxieties about future raids and about the well-being of friends and relatives. Again, there is an increase in anxiety from lightly bombed to the moderately bombed towns and no further change in the percentage of those expressing anxiety in the most heavily bombed cities (group I).

TABLE 24.—Percent of persons expressing unxiety (solvedule A)

Group I: Heavy bombing	12	(634)
Group II: Medium bombing	12	(367.)
Group III: Light bombing	9	(123)

These relations are further reinforced by answers to the questions:

"Were you more and more afraid as the raids continued, or did you get used to them?" and "Did these repeated raids have any other effects on your state of mind?"

The percentage of individuals who report that they experienced more and more fear increases from the lightly bombed to the moderately bombed, while very little difference appears between the medium and heavily bombed groups. This small difference is in the direction of improved morale under heavier bombing.

¹It has not been considered necessary to analyze separately the effect of frequency of raids on each measure of morale, inasmuch as analysis shows that there is a very close relationship between tonnage and frequency. As a check, the two morale indices of schedules A and B and the evidence on adaptation to continued raids were analyzed in relationship to frequency of raids. In all cases the effect of frequency on morale parallels the evidence on bomb tonnage.

TABLE 25.—Percent of persons showing increased fear (schedule A)

Group I. Heavy bombing	33	(627)
Group II: Medium bombing	36	(355)
Group III: Light bombing	18	(104)

War Weariness and Opinion on Outcome of War

Answers to four questions on schedule A were examined to obtain ratings on war weariness as a result of bombing:

"Did your opinion on the war change when the air raids didn't stop?" "Did you ever come to a point because of the air raids where you simply didn't want to go on with the war?" "What did you think at that time of 'unconditional surrender'?" and "What in your opinion was the chief cause of the war?"

The story of diminishing returns in morale effects with increased bomb tonnage repeats itself. A significant increase in war weariness from the lightly bombed group to the moderately bombed appears but again there is no further depression in morale in the most heavily bombed cities. The percentage of war-weary is almost the same for group I (heavily bombed) as for group II.

TABLE 26.—Percent of persons showing war wear	iness
(schedule A)	
Group I: Heavy bombing 62	(415)
Group II: Medium bombing 62	(299)
Group III: Light bombing 48	(101.)

The following question was asked on schedule B:

What first brought you to the belief that Germany would lose the war?

From the answers given to this question, it was possible to determine the time at which individuals first came to believe that Germany would lose. It is interesting to note that the effects of bombing recapitulate the familiar pattern of depressed morale under light and medium bombing with a slight upswing under heavy bombing. The unbombed people came to the conclusion that Germany would lose at a median point of 15 October 1942. The slightly bombed group (III) reached the point at the median of 1 August 1942. Group II (under medium bombing) shows a median at April 1942, and group I (under heavy bombing) 1 August 1942. The unbombed cities arrived at a point of believing that Germany would lose the war later than any of the other groups. The most heavily attacked group maintained its morale longer than group II and arrived at a belief that Germany would lose about the same time as group III.

 TABLE 27.—Median date for first belief that Germany

 would lose (schedule B)

Group I: Heavy bombing1 Aug. 1942	(761)
Group II: Medium bombing1 Apr. 1942	(463)
Group III: Light bombing1 Aug. 1942	(229)
Group IV: Unbombed	(419)

Willingness to Surrender

On both schedules A and B the question is asked:

What did you think at that time (at the time when you did not want to go on with the war) of unconditional surrender?

On schedule A the question was asked in the context of a series of other questions which had specifically to do with air raids, so that there is an emphasis on willingness to surrender because of air raids.

An examination of the replies to this question on schedule B reveals an increasing number of persons willing to give up in towns subjected to light attacks as compared with those in towns not raided at all. Also more were willing to give up under medium bombing than under light bombing. The percentage of such individuals (willing to give up) under heavy attacks and under medium bombing is identical. The evidence is that an increase in bomb tonnage from the 6,000 tons in group II to the 30,000 tons in group I has produced no further decline in morale among those exposed to it.

The results from schedule A are similar, with increasing numbers willing to surrender in group II as compared to III. In this case, moreover, there is apparently a slight recovery in morale in the heavily bombed group. This difference is not statistically reliable, however.

TABLE 28.—Percent of persons willing to surrender

	Schedule A		Sch	Schedule B		
Group I: Heavy Bombing	69	(436)	59	. (881)		
Group II: Medium Bombing	72	(290)	59	(548)		
Group III: Light Bombing	65	(104)	54	(255)		
Group IV: Unbombed			51	(476)		

A question closely related to willingness to surrender was phrased as follows:

Did the news of air-raid damage in other cities strengthen or weaken your will to see the war through?

The percentage of people expressing a weakened desire to see the war through increases from the unbombed level of group IV to group III (lightly bombed). There is no further increase with bomb tonnage in group II (medium bombing), and in the most heavily bombed cities (group I) there is a marked (and statistically significant) falling off in the proportion of people who did not wish to go on with the war.

TABLE 29.—Percent with weakened desire to continue the

Group I: Heavy bombing	72	· (887)
Group II: Medium bombing	79	(576)
Group III: Light bombing	79	(256)
Group IV: Unbombed	71	(504)

Attitude toward Leadership

Attitude toward leadership is reflected in answer to a number of questions in the crosssectional survey. On schedule B the question was asked:

During the war did you believe that your leaders wanted what was best for you?

The extent of belief that leaders did have the best interests of the people at heart was appreciably less in bombed towns. But the people of the most heavily bombed communities show greater faith in the leaders than those in towns suffering lighter raids, a repetition of the finding that heavier bombing does not have a proportionally greater effect on morale.

TABLE 30.—Percent believing leaders had the best interests of people at heart (schedule B)

Group I: Heavy bombing	48	(935)
Group II: Medium bombing	44	(599)
Group III: Light bombing	52	(272)
Group IV: Unbombed	62	(502)

Morale Index

A morale index was constructed for both schedule A and schedule B to give a composite measure for the various aspects of morale.

On schedule B, S9 items and on schedule A, 40 items were selected as reflecting important aspects of morale. When any one of these answers appeared on a schedule a certain weight was assigned in the morale index. The sum of these weights constituted the indices, which were then grouped into six categories from "very low" to "very high morale." The items going into these measures are, for the most part, the dimensions already discussed, such as fear and terror reactions, war weariness, willingness to surrender, confidence in leadership, etc.

The index obtained from schedule A shows a marked decrease in morale from towns lightly raided to towns under medium bombing. As with so many of the individual items, the index suggests a slight increase in morale under the heaviest bombing conditions. The curve representing the level of morale drops as bombing increases until the highest bomb tonnage is reached, where there is a reversal. This same relationship between the severity of bombing and the level of morale is found in the index based on schedule B.

TABLE 31.—Percent of people showing high morale

	Schedule A		Schedule B	
Group I: Heavy bombing		(587)		(822)
Group II: Medium bombing	41	(370)	42	(572)
Group III: Light bombing	59	(126)	51	(278)
Group IV: Unbombed			59	(518)

Behavioral Morale: Absenteeism and Illegal Radio Listening

Schedules A and B contain the question:

How many work days were you absent from your work in 1944?

For schedule A, given only to people in bombed communities, there is a very slight increase in the number of persons admitting that they took time off in the more heavily raided communities. For schedule B, however, there is a statistically significant difference (a) between bombed and unbombed communities in time taken off, and (b)between the cities in the heavy tonnage group and cities under medium bombing. These results on absenteeism do not repeat the pattern of an upward shift in the morale curve for most heavily bombed cities. This is undoubtedly due in part to the fact that extra time off must result from more intense bombing apart from morale effects.

At the very end of schedule B respondents were asked about their illegal radio listening:

Did you ever listen to Allied broadcasts? When did you first begin listening? TABLE 32 .- Average time taken off from work, 1944

	Schedu	ile A	Schedule B	
Group 1: Heavy bombing Group 11: Medium bombing Group 111: Light bombing Group IV: Unbombed	25 days 22 days	(174) (62)	24 days 21 days 22 days 17 days	(925) (306) (131) (215)

The difference in illegal listening between cities lightly bombed and cities not bombed at all is significant. Increased levels of bombing bring no corresponding rise in black listening.

TABLE 33.--Percent listoning to Allied broadcusts 1 (schedule B)

Group I: Heavy bombing		(845)
Group II: Medium bombing	35	(593)
Group III : Light bombing	38	. (278)
Group IV: No bombing	27	· (538)

³ Pre-1030 listeners are not included in this table, because it is assumed that their listening habits could not have been due to bombing.

Other Measures of Severity of Raids

Though total bomb tonnage is the most obvious objective measure of the severify of air raids, it is only a gross index of the exposure of the individual to bombing. It fails to take account of the amount of destruction produced in a city relative to tonnage and to the size and concentration of population. It also does not provide for the fact that not all people in the same city are equally affected by air attacks. One person may suffer severe experiences; another may escape with a minimum of damage. Both of these shortcomings of tonnage as a precise measure of exposure must be taken into account before accepting the conclusion that the heaviest bombing does not depress morale as much as relatively lighter bombing. Three more precise measures of bombing exposure must, therefore, be considered :

(1) percent of actual houses and buildings destroyed in a given city.

(2) degree of personal involvement in terms of casualties suffered in the immediate family, own home or business destroyed, or health affected.

(3) the extent to which the individual has been deprived of services and utilities.

Chart V summarizes these results.

City Damage and Morale

Estimates of bomb damage were obtained from former German officials of cities in the cross-sectional sample. Cities were grouped into five categories on the basis of percentage of buildings and homes destroyed as shown in tables 34 and 35.

A comparison of these groups of cities on the various measures of morale gives results similar to those obtained when bomb tonnage was the measure. There is always a rapid rise apparent in the proportion of people showing low morale when undamaged cities and those with 1-19 percent destruction are compared. Eight of 11 measures show further depression when destruction reaches the 20-39 percent level. From this point on the change in morale is slight and inconsistent, sometimes dropping, sometimes remaining the same, or even improving, as the percentage of damage grows larger.

TABLE 34.—Percent showing high morale 1

I. Cities	60-80	percent destruction		46	(371)
II. Cities	40-59	percent destruction		44	(361)
III. Cities	20 - 39	percent destruction		41	(614)
IV. Cities	1 - 19	percent destruction		44	(435)
V. Cities	0	destruction	• • • • • • • •	59	(519)

³All responses reported in tables 34-40, inclusive, are from schedule B. Responses from schedule A show similar trends.

TABLE 35.—Percent willing to surrender

I.	Oitles	60-80	percent destruction	67	(305)
II.	Citles	40-59	percent destruction	54	(842)
III.	Cities	20-39	percent destruction	55	(737)
IV.	Cities	1-19	percent destruction	60	(350)
٧.	Citles	0	destruction	51	(413)

Morale and Personal Involvement

The most sensitive measure of the physical impact of bombing upon civilians is the extent to which they were personally involved. People were grouped into the following four classes:

I. Very high involvement—personal injury or casualty in immediate family, property damage and/or sleep and health disturbed.

II. High involvement—property damage and health or sleep disturbed.

III. Some involvement-property damage only.

IV. No involvement—self or family not affected in these specific ways.

In all 12 measures of morale described,¹ morale is lower for the people with *very* high involvement who suffered injuries or casualties in the family (level I) than for those with high involvement (level II).

¹See section, "Weight of bombs dropped" in this chapter for description of morale measures.

In 11 out of 12 measures morale improves where only property damage is involved (level III as compared to level II).

In 7 out of 12 measures the persons who have suffered none of these particular effects of bombing (level IV) show higher morale than those with property damage only (III).

From these results it is clear that casualties and injuries are most serious in their effects on morale and that property damage is relatively much less important. When measured in these terms, the greatest amount of involvement produces the lowest morale.

See chart ∇ .

The following tables illustrate these trends.

TABLE 36.—Percent showing high morals

Very high personal involvement	35.	(178)
High personal involvement	43	(974)
Some personal involvement	53	(288)
No personal involvement	,59	(305)

TABLE 37.—Percent willing to surrender

Very high personal involvement	61	(163)
High personal involvement	60	(883)
Some personal involvement	55	(272)
No personal involvement	49	(281)

TABLE 33.—Percent indicating leaders had best interest. - at heart

Very high involvement	45	(176)
High personal involvement	49	(1006)
Some personal involvement	51	(282)
No personal involvement	.57	(307)

Deprivation and Morale

People were classified into five groups on the basis of the amount of deprivation they suffered in terms of: Quantity and quality of food and other commodities, transportation, to work or for personal purposes, mail, telephone, gas, water, electricity, heat supply, and sanitary facilities. A composite score was derived from the information about these various services and supplies.²

In general it may be said that morale declines as the amount of deprivation increases, but the changes seen in the various measures of morale are not as consistent with increase in deprivation as was the case with personal involvement. Moreover, on almost half of the measures there is a tendency for morale to remain at the same level or to improve where deprivation is the greatest. In other words, there is evidence here, as in the material on weight of bombs dropped, that beyond a certain point further increase in deprivation has very little additional effect in depressing morale.

The following tables show these tendencies.

* TABLE 39.—Percent showing high morale

Highest deprivation	(447)
High deprivation	(334)
Moderate deprivation	(444)
Low deprivation	(436)
Little or no deprivation 57	(517)

TABLE 40.—Percent willing to surrender	
Highest deprivation	(445)
High deprivation	(328)
Moderate deprivation	(497)
Low deprivation 50	(428)
Little or no deprivation 48	(487)

Day Versus Night Bombing

Respondents were asked on schedule A, "Which were more terrible, day or night raids?" Eightytwo percent indicated that the night raids were worse. There is a question whether this great dread of night raids results from the greater severity of these raids. In order to check on this point, two small groups of three cities each were selected which had been hit with an average of 25,000 tons of bombs. One of these groups experienced predominantly day raiding and the other predominantly night raiding. Another pair of groups was set up with average raids equal to 9 tons and, again, one was predominantly day raided and the other night raided.

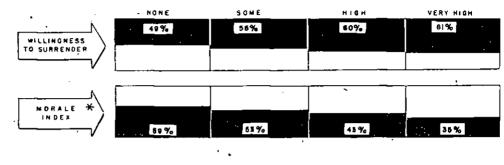
A comparison of the percentages of the heavily bombed who feared night raids more shows the same results reported for the whole sample. At this level it is still clear that raids at night are more feared, even with tonnage constant and the number of night raids varying. The same comparison at the second, much lower tonnage level, again shows little difference in the percentage of those who consider night raids the worse. In this case, however, there is a slight increase in the number fearing day raids when the city has experienced predominantly day raids, and this difference comes close to statistical reliability. This finding would indicate that when bombing is light there is some increase in the number of people who fear the kinds of raids that they have experienced most often, but 76 percent of these respondents still consider it worse to be raided at night.

²The importance of interference with various types of utility services is discussed in ch. 1, vol. 11. The background information on cities in the sample reported there confirms the results discussed here.

VARIATIONS IN MORALE FACTORS RELATED TO EFFECT OF BOMBING

DEGREE OF PERSONAL INVOLVEMENT

LOSS OF HOME, RELATIVES, ETC.



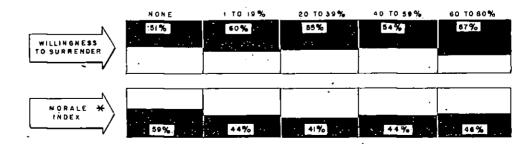
۰.

DEGREE OF DEPRIVATION OF UTILITIES

TRANSPORTATION, GAS, ELECTRICITY, WATER

WILLINGNESS TO SURRENDER	NON E	LO#	MODERATE 82%	HIGH 63%	HIGHEST 63%
MORALE X	67%	53%	46%	39%	36%

PERCENT OF DESTRUCTION OF CITY



Percent showing high morale ¥

29

TABLE 41.—Percent who judged night raids worse

	25, 000 tons		9 tons	
Predominantly;night raids	-88	(162)	84 [*]	(138)
Predominantly day raids	84	(158)	76	(118)

It is impossible, unfortunately, to find cities which are equated for the amount of area bombing and which vary with respect to proportion of day and night raiding. Only a comparison between such groups (equated for area bombing) would answer finally the question about the relative importance of night bombing versus day bombing.

This is consistent with the results of the study of captured mail reported in chapter 2, volume II which finds that night raiding produces much more severe emotional reactions. It is shown there, however, that night raids are no more effective than day raids in changing morale attitudes such as willingness to surrender, etc.

The same result is reported in the foreign worker study, chapter 3, volume II.

Discussion and Interpretation of Results

The principal conclusion of this chapter has been stated as follows:

Morale decreases as the weight of bombs increases but the change is not proportional to tonnage, the maximal effect appearing where tonnage is stepped up from no bombing to 500 tons. It is important for practical reasons to consider whether these diminishing effects of increased bombing are significant and meaningful and to determine what lies behind them for, as the results stand, it appears that the maximum morale effect of dropping a given weight of bombs would be attained by widely scattered bombing rather than by concentrating available tonnage on a few areas.

· Is Bomb Tonnage an Important Factor In Morale Change?

The demonstration that morale is highly sensitive to the degrée of personal involvement has raised the question whether the morale of a city is determined principally by the number of persons suffering direct personal consequences of raids. In this case the change in morale with bomb weight might be due wholly to a change in the amount of personal involvement produced by bombing.

Table 42 supports the notion that morale changes resulting from a given weight of bombs are produced principally by the amount of personal involvement incident to the bombing. The table indicates that in the present study the amount of serious personal involvement does not increase in proportion to the weight of bombs dropped. The percentage of people suffering such consequences increases with tonnage, but the change is very small where bombing is severe. Only 5 percent more people were involved where 30,000 tons of bombs had been used than with 6,000 tons. This pattern of diminishing increase in personal involvement as bomb weight mounts parallels closely the pattern of change in morale with increasing bomb tonnage. It is possible, therefore, that the diminishing morale effects are explained by whatever is responsible for such a leveling off in personal involvement produced by heavy bombing.

 TABLE 42.—Percent suffering very high and high personal involvement (schedule B)

Heavy bombing 72	
Medium bombing 67	7 (592)
Light bombing	3 (278)
Unbombed14	4 (478)

The explanation for the small increase in percentage of personal involvement in cities most heavily bombed probably lies in the fact that a number of evacuees from these cities did not fall in the sample. The omission of this group would reduce the number of seriously involved persons and persons with low morale in these communities, and the level of morale of such cities would consequently be increased. There can be little doubt that this is one factor holding up the level of morale but the question remains whether the results are completely accounted for by the personal involvement factor. Does the tonnage of bombs dropped have morale effects over and above the fact that more bombing directly involves more people in casualties, property damage, and interference with utilities and services?

Comparison I: Equal Personal Involvement, Different Degrees of Bombing

The effects of personal involvement may be ruled out by examining differences in the morale of people who have suffered the same amount of personal involvement but have experienced different degrees of bombing. When this is done, the depressing effects of increased bombing show up at every level of personal involvement, but it is not always true that the maximum changes are produced at the level of light bombing. This is still true in 60 percent of the morale measures at the highest levels of involvement and in 85 percent of the measures where involvement is slight. In other words, when the individual impact of bombing is greatest, at least 40 percent of the morale measures show either no consistent change with bomb weight, or as great a drop when bombing is stepped up from medium to heavy as when it changes from light to medium.

It may be concluded:

(1) The tonnage of bombs dropped does make a difference in morale over and above its effect in causing more people to suffer serious personal involvement. Both the victims of such involvement and others in the community suffer changes connected with bomb weight.

(2) Where there is little or no such direct involvement, morale falls fastest when light bombing is administered. Diminishing returns of increased bombing are thus confirmed.

(3) At high levels of involvement diminishing effects appear but with less consistency. On some morale measures the maximum effect of increased tonnage shows up at the level of most severe bombing.

Comparison II: Equal Deprivation, Different Degrees of Bombing

A further check on the reliability of the observation of diminishing effects may be made by examining morale changes when the effects of deprivation are ruled out and only the bomb tonnage varies.

People who have suffered little or no deprivation show the same maximum fall in morale in lightly bombed as compared to unbombed cities on 90 percent of the morale measures. As in the personal involvement material, however, the tendency to diminishing returns appears less consistently where deprivation is great.

Other Factors Causing Diminishing Effects of Bombing on Morale

Since the leveling off of morale changes with severe bombing cannot be wholly explained by changes in the amount of personal involvement and deprivation, other sources of this effect must be sought. Respondents reported on their state of mind under continuing raids. Apathy and fatigue were two of the effects reported. Since apathy and fatigue are similar psychologically, the categories were combined. The interesting finding is that as bombing increases there is an increased apathetic reaction, and there is no diminution of this reaction in the cities undergoing the most severe attacks.

1

TABLE 43.—Percent of persons reporting apathy and fatigue (schedule A)

Group	I: Heavy bombing	12	(631)
Group	11: Medium bombing	9	(304)
Group	111: Light bombing	6	(107)

These results suggest that heavy bombing may raise morale, not by making people active and enthusiastic in their support of the war, but by making them apathetic and hence less active in their criticism of and opposition to the war effort. Under conditions of severe raids their thoughts centered on the immediate personal problems of fox-hole existence. They did not think about nor concern themselves with the larger political problems of war aims, of the conduct of the war by their leaders, of whether surrender should be conditional or unconditional.

Unfortunately there are not enough measures of apathy in the cross-sectional study to establish this interpretation conclusively. However, German official intelligence reports and the background reports from the sample cities suggest that heavy bombing produced passivity making for a malleable people.

Background report from Munich:

The raids caused such physical destruction that for 'the majority the whole of their energy was necessarily taken up in coping with the elementary physical problems of existence.

Background report from Freiburg on underground activity:

In considering this matter, it must be remembered that the great attack of 27 November 1944 took all the fighting spirit out of the city.

Background report from Hannover on underground activity:

The bombing attacks made it more difficult to carry on our activities. People had to concern themselves with the problems of their own families so that they did not have the time or the energy to engage in preparation for revolution.

The bombing attacks definitely handicapped our activity for several reasons. In the first place people were too busy taking care of their own families during the raids and their attention was necessarily focused upon the problems of surviving the raids.

Background report on behavior in shelters:

Two reports indicate that *actual* bombardment reduced or eliminated quarreling and petty criticism. In Karlsruhe it was reported that quarreling ceased when a bombardment began. In Dortmund it was reported that quarreling and criticism took place only in instances when there were alarms without attacks. Apparently the effect of immediate danger was that of reducing petty quarreling.

Official German morale report to Luneberg, August 1944: v

Many find themselves in a condition of absolute fatalism. One cannot change what's going on, therefore there is no point in worrying about it. They leave everything up to the leadership and cannot imagine that the leaders will misuse the trust placed in them. Official German morale report from Frankfurt, September 1944:

The difference in the formation of opinion splits between optimists * * * and pessimists * * *. Between them stands the wide voice of those who take absolutely no position and in a sort of fatalism await what will happen. These latter avoid for instance listening to the Wehrmacht Communique and looking at the map because they don't wish to see the German reverses.

There remains the possibility that the apparent leveling off of the morale curve under conditions of heaviest bombing is due to the anger and aggression directed at the Allies as a result of the raids. The responses to the question, "Did you blame the Allies for air raids?" do not support this explanation. Rather, they fall into the same configuration as the other aspects of morale. There is increased resentment against the Allies in the cities that have been widely bombed as compared to unbombed communities. But increased bomb weight does not bring a corresponding increase of resentment.

TABLE 44,-Percent of persons who blamed Allies

	Sched	ule A	Schedi	ile B
Group I: Heavy bombing	83	(641)	36	(942)
Group II: Medium bombing	29	(362)	· 33	(586)
Group III: Light bombing	33	(126)	45	(272)
Group IV: Unbombed			-37	(813)
•				

CHAPTER 4. SOCIAL AND PSYCHOLOGICAL FACTORS AFFECTING MORALE

Not all Germans subjected to bombing were willing to give up. A thorough-going analysis of the effectiveness of bombing must explore the reasons why this is so. Who were these people who were willing to keep going to the very end? What sort of opinions and ideas did they have? Were they altogether immune to the effects of bombing?

Among the factors which made the morale of some individuals higher than that of others, personal identification with the Nazi cause was by all odds the most important. Other psychological characteristics which were related to high morale were continuing belief in the adequacy of defense measures, a sense of vested interest in German victory, belief in V-weapons, and a tendency not to be apprehensive of the future. These results do not mean that the morale of persons with such characteristics was invulnerable to bombing. Nazis, for example, actually showed depressed morale as a result of bombing more frequently than others; but their initial morale was so much higher that bombing was insufficient to bring it down to the level of the non-Nazis. It was found, however, that fear and terror in the presence of bombing bore no relation to the practically more important aspects of morale, such as willingness to surrender. The persons who became extremely frightened were no more willing to give up than were those who remained calm.

Nazi Identification

Level of Morale

. Belief in Nazi ideas and the Nazi cause had more influence than any other factor on the morale of the German civilian. It was, in fact, more important than direct bombing experience, for ardent Nazis subjected to heavy bombing retained better morale, as a group, than did non-Nazis who were not bombed at all. This was true for all aspects of morale with the possible exception of the purely emotional reactions of fear and terror brought on by the raids; Nazis seem to have been frightened almost as much as other Germans.

Two indices of Nazi identification were used. The first was simply an admission of membership in the Nazi Party organization, which was subject to possible error on two counts. Some members had joined for bread-and-butter reasons rather than because of belief in Nazi doctrines and, on the other hand, some doubtless failed to admit their membership. Hence a second index was obtained. The interviewers rated each respondent for degree of Nazi identification on the basis of all the information gained during the interview, particularly on the types of Nazi beliefs expressed. For example, a respondent might disclaim adherence to Nazi ideas but would go on to remark that it was nice to have a good Aryan people like the Americans as an occupying force.

Twenty percent of the sample admitted that they were members of some Nazi organization, exclusive of the Hitler Youth groups. Ten percent were identified as ideological Nazis, 57 percent as non-Nazis; and 33 percent as falling between.

Tables 45-48 furnish examples of the consistently higher Nazi morale on a few of the morale measures. All other measures tell essentially the same story, with the minor qualification already noted that the differences in the percentage of. Nazis and non-Nazis expressing fear under bombing are on the whole unreliable, even though these differences show the same trend as those on other measures of morale.

TABLE	45.—	-Median	morale	inder	ΒĪ	

	Heavy bombing	Medium bombing	" Light bombing	Un- bombed
Nazi party members	32.5 29.0	29.5 27.8	31.5 28.7	31. 5 30. 7
Difference	3.5	1.7	2.8	
Ideological Nazis	36. 5	/	36.2	38.8
Non-Nažis	· 26.5	26.8	28.4	29.0
Difference	10.0	8.2	7.8	9.8

¹ High scores mean high morale on morale index B.

TABLE 46.—Percent willing to surrender 1

•	Heavy bombing	Medium bombling	Light bombing	Un- bombed
Nazi party members	43	49	36	- 37
Nonmembers	60	57	50	53
Difference	17	8	12	16
Ideological Nazis	20	30	12	14
Non-Nazis	65	53	57	65
Difference	45	33	45	51

¹ In the tables of this chapter the base of the percentages is the number of people falling in each cell. For example, in table 46, 43 percent of Nazi Parly mombers who were heavily bombed said they were willing to surrender. Sixty percent of nonmembers heavily bombed were willing to surrender, etc. TABLE 47.—Percent reporting year weariness

	Heavy bombing	Medium bombing	Light bombing
Nazi party members	73	76	53
Nonmembers	73	73	63
Difference 1	0.	(3)	10
Ideological Nazis	• 42	42	37
Non-Nazis	76	79	65
Difference	34	87	28

¹ Difference in parenthesis is in direction opposite from ex-

TABLE 48.—Percent	expressing	intense	fear of	bombing
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·	Heavy bombing	Medium bombing	Light bom bing
Ideological Nazis Non-Nazis	32 42	· 38 40	29
Difference	10	2	. 6

It is evident from these tables that the classification of Nazis on the basis of ideology brings out greater morale differences than classification by party membership. This is consistently true.

The Effects of Bombing on Nazis

As already indicated, the consistently higher morale of Nazis should not be interpreted as meaning that they were invulnerable to the effects of bombing. Tables 45–48 bear out the statement that bombing had its effects on Nazi morale. Each of these measures shows a falling off, with the possible exception of the party member category in table 45, when unbombed are compared with heavily bombed. There are 27 morale measures on which it is possible to compare the drop in morale for Nazis and non-Nazis. In 16 of the 27 measures the differences between bombed and unbombed Nazis were greater than similar differences for non-Nazis.

The morale measures on which Nazis showed a greater morale drop than non-Nazis include, among others, willingness to surrender (schedule -B), time lost from work, fear and depression, apathy and fatigue, a feeling that the respondent suffered more personally than others, interference with work routine because of loss of sleep.

Belief in Adequacy of Defensive Measures

On the whole, people who felt that the air-raid shelters, anti-aircraft, and post-raid measures

were inadequate had lower morale than the civilians who thought these measures adequate. Again, bombing served to bring the satisfied and dissatisfied groups closer together by lowering the morale of those who considered defensive measures adequate. Increased bombing lowered morale more among individuals who felt everything possible was being done than among those dissatisfied with defensive measures. Perhaps people satisfied with the steps taken to protect them found the situation all the more hopeless under heavy air attack. Since, in their eyes, everything possible was being done, the psychological impact of the raids was all the greater.

TABLE 49.—Belief in adequacy of defensive measures and morale

	Median morele index (A) ¹			
	Heavy bombing	Medium bombing	Light bombing	
ARP unsatisfactory	31.1	32.7	30.,6	
Everything possible was done	29.0	28.7	22. 5	
Difference	2.1	4.0	8.1	
Dissatisfied with shelters	30. 3	31.6	29. 5	
Satisfied with shelters	3 0. Q	29.5	· 27.8	
Difference	0.3	2. 1	1.7	
Ack-ack inadequate	31. 1	31.5	29. 5	
A ck-ock adequate	29. 0	28.4	27. 0	
Difference	2. 1	3.1	, 2.5	
Post-raid services unsatisfactory	 30.6	30.9	31.0	
Post-raid services good	29.7	30.0	27.8	
Difference	0. 9	• 0.9		

¹ High scores indicate low morale on index A.

The question inevitably arises whether this apparent relation of morale to belief in adequacy of defense is real or whether it occurs because Nazis, who have the highest morale, are disposed to avoid criticism of defensive measures provided by the government. The relation turns out to have meaning, for the differences demonstrated persist when the results are analyzed separately for those with Nazi ideology and those with other views.

Vested Interest in German Victory

German morale was influenced not only by Nazi conviction and by belief in the adequacy of counter-measures, but also by a sense of vested interest in German victory. The Nazi Propaganda Ministry did its best to exaggerate the community of interest and the common fate of the German people. Some Germans, however, realized they had much more to gain from victory than others, and there were those who felt they would be benefited by an Allied victory. This feeling of vested interest was ascertained by asking people how they would have fared if the Germans had won the war, and how they expected to get along under Allied occupation.

Those who felt they would have fared better under a German victory than under Allied occupation were classified as having a vested interest in German victory. Those who felt they would have fared worse under German victory than under Allied occupation were classified as having a vested interest in Allied victory. Civilians showing the greatest vested interest in German victory maintained their morale in many cases until the end of the war (tables 50 and 51). Bombing, however, did produce some war weariness and defeatism, even in this highly motivated group. The effect of bombing upon the opposite group (those who thought they would be better off if the Allies won) was less clear-cut. It led to war weariness earlier in the war, but it did not increase the proportion of people wanting unconditional surrender.

Again, it has been found that the fact of having a vested interest in German victory is not the same as Nazi identification, for its relation to morale persists when Nazis are excluded.

	Heavy bombing	Medium bombing	Light_ bombing	Un- bombed
Vested interest in German vic-				
tory	31	31	25 -	13
Vested interest in Allied victory.	62	65	· 65	68
Difforence	31	34	40	55

TABLE 50.—Percent willing to surrender unconditionally

TABLE 51.—Median time at which individuals no longer wanted to go on with the war

· ·	Heavy bombing	Medium bombing	Light bombing	Un- bombed
Vested interest in German vic- tory				May 1945 Jan. 1945
Difference (in months)	. 19	23	. 19	4

Belief in V-weapons

Great hopes were pinned on the development of V-weapons by certain parts of the German population. This was commented on by various official reports such as that from the security police in Braunschweig in 1944:

The hopes of further secret weapons are after all the only factor having a positive effect on morale. Everything which propaganda sets forth concerning the new weapon is received and discussed with burning interest.

The analysis of interview material reveals that persons who accepted the propaganda on this subject were on the whole a high morale group.

TABLE 52.-Median score on morale index B 1

	Heavy	Medium	Light	Un-
	bombing	bom bing	bombing	bombed
Great belief in V-weapons	32. 1	33.1	33. 8	36. 0
Complete rejection	26. 3	26.2	27. 2	27. 6
Difference	5, 9	6. 9	6. 6	8.4

¹ High scores indicate high morale.

TABLE 53.—Percent willing to surrender

	Heavy bombing	Medium bombing	Light bombing	Un- bombed
Great belief in V-weapons	40	36	32	30'
Complete rejection	70	64	54	70
Difference	33	- 28	22	40

It is doubtless true that belief in V-weapons depended to some extent on acceptance of Nazi claims in general or on some more general factor of morale. It was not, therefore, altogether a cause of high morale but was in part a result of it. There is evidence, however, that the acceptance of this belief did operate to affect morale attitudes as long as the belief persisted, for 5 percent of the sample mentioned spontaneously that failure of the V-weapons to materialize made them believe Germany would lose, and of those respondents who never reached the point of wanting to give up, 4 percent gave as their reasons the hope for the new weapons.

Fear and Sensitivity

Some of the individual differences in morale which relate to beliefs, attitudes, and motives are in part a reflection of deep-lying personality characteristics. No completely adequate measures of personality were possible in the cross-sectional study but there were inquiries yielding information on objectively produced fear and sensitivity on the one hand, and about subjective fear on the other.

Objectively produced fear can be distinguished from sensitivity, or subjective fear, in that it grows directly out of terrifying situations and is common to most people, whereas sensitivity relates to subjective processes, to apprehensions and expectations which differ markedly between individuals. The latter is, therefore, more truly a personality trait.

In general, when people were questioned about their emotional experiences during raids, they reported more in terms of objectively produced fear than in terms of subjectively induced fright. The fear experienced during air attacks was not correlated with willingness to surrender or with most of the other aspects of morale. Thirty-six statistical comparisons were made between measures of emotional reaction to bombing and morale attitudes. Only 3 of the 36 indicated any relationship between fear and the various dimensions of morale. Thus, for example, the frightened in this sense are no more willing to give up than are those reporting no fear. As already suggested, this was also true of Nazis. No matter how strong the identification with Nazi ideas, the sheer objective terror of an air raid produced fear in the individual experiencing it. The immediate effect of the experience was very much the same for all, regardless of other aspects of morale. Table 54 illustrates the absence of a relationship between degree of fear and willingness to surrender.

TABLE 54	.—Percent	willing	to	surrender
----------	-----------	---------	----	-----------

-	Heavy	Medium	· Light
	hombing	bombing	bombing
Intense fear	21 55	~ 82 58	58 46

The same phenomenon has been observed in battle, where men with good behavioral morale will experience fear under terrifying circumstances almost as much as men who run away. It is not so much whether people become frightened as what they do about it that affects the outcome. When, however, subjective fear or sensitivity was studied indirectly through queries about people's apprehensions, a relation was found between morale and timidity. German civilians were asked about the expectation that their lives would be upset by the war. The apprehensive people, who felt the war would seriously affect their lives, had poorer morale than their stolid countrymen who had not anticipated the trials of war and air attacks. Anticipation, instead of helping to cushion the shock, proved to be a symptom, like worry, related to poor morale.

On the other hand, the apprehensive are not consistently more susceptible to the effects of bombing than are more stolid persons. On some measures, as in the first portion of table 56, they show even less consistent decline in morale as a result of bombing than do the less apprehensive.

TABLE	55.—Percen	t willing	to	surrender
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	Heavy bombing	Medium bombing	Light bombing	Un- bombed
Expected life to be upset	62	56	47	. 50
Did not so expect		52	45	<u>4</u>
Difference	11	, 1	2	6

TABLE 56.—Percent believing leaders did not have. people's interests at heart

	Heavy bombing	Medium bombing	Light bombing	Un- bombed
Expected life to be upset	46	48	39	39
Did not so expect	33	37	32	22
Difference	13	11	7	17
Thought a great deal about war.	43	47	34	31
Did not think much about war	31	36	45	25
Difference	12		(11)	6

Table 56 also shows that the passive or stolid individuals who thought little about the war had higher morale than their more imaginative colleagues. Bombing lowered the morale of both groups, but in this case those who thought a great deal about the war were slightly more affected, when the unbombed are compared to the heavily bombed.

Socioeconomic Status

Socioeconomic status was determined from the information regarding education and occupation of the respondent.

- 36

The most striking result of the analysis of morale by socioeconomic status is the consistently lower morale revealed by the people with low status. This is true of all morale measures analyzed and at all levels of bombing. Since this group starts with such low morale even when unbombed, the drop with increased bombing is relatively slight. In the other higher status groups there is a marked drop in morale with increased bombing.

	Heavy bombing	Modium bombing	Light bombing	Un- bombed
Digh status.	55	59	38	- 33
Middle status	58	53	61	48
Low status	63	62	61	61

However, these differences do not persist when legree-of Nazi identification is controlled. Nazi dentification and high socioeconomic status tended to be identified to such an extent that the apparent effects of the latter were wholly due to the higher morale of the Nazis.

Religious Affiliation¹.

On all but one measure of morale analyzed, Protestants showed slightly higher morale than Catholics. On this one measure (morale index B) there was no difference.

TABLE 5S.—Percent willing to surrender

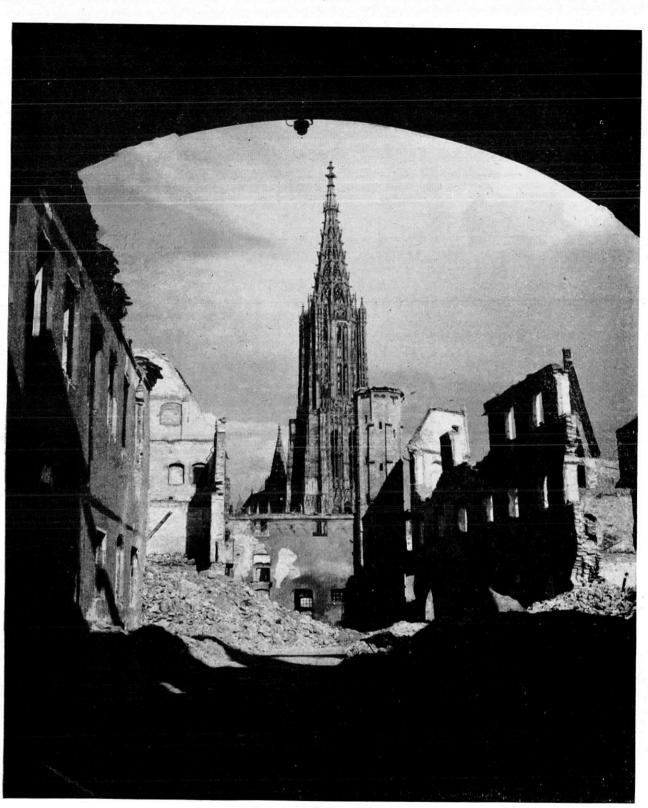
·	Lieavy	Medium	Light	Un-
	bombing	bombing	bombing	bombed
Catholic	, (10	63	73	57
Protestant	, 54	· 51	48	52

Other Individual Differences

A number of other variables were examined and found without effect on morale. Notable among those which showed no consistent effects were age, sex,² and marital status. Region is shown to be an important factor in morale in chapter 1 of volume II.

 $^{^1}$ See further reference to the role of the church in ch. 7, pt. II, vol. 1, and to religious activity in ch. 1, vol. II.

⁴ In ch. 2, vol. II it is reported that women showed greater loss in morale than men. The index used there is based chicfly on emotional components of morale. In the civilian interview material women showed about the same loss as men on measures of willingness to surrender. The markedly greater loss in the study of captured mail is probably due to the fact that the morale measure there is based on emotional components: that, in other words, women's emotional reactions were more affected by bombing than those of men, but not their attitudes toward surrender.



1. Damaged buildings in Ulm.



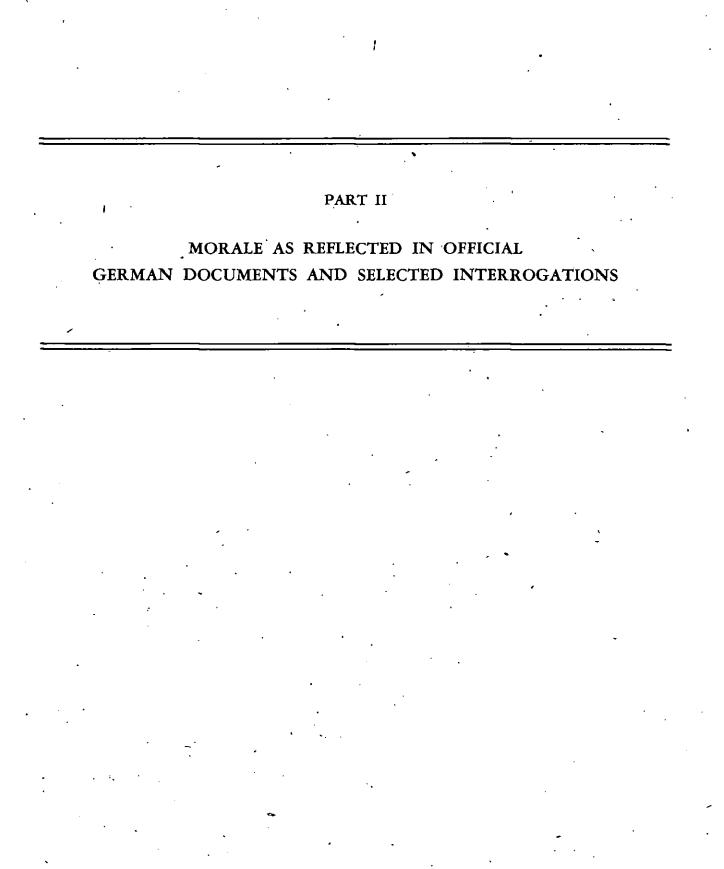
2. Ruined dwellings in Krefeld.



3. Clearing the rubble in Nuremberg.



4. German civilians clean up debris and search for dead in Cologne-Bruhl.



CHAPTER I,-THE COURSE OF DECLINE IN MORALE

Official Intelligence Reports

German authorities, concerned with the state of popular morale, maintained an extensive intelligence service on the home front, both for their general information and as a specific guide to their propaganda efforts. Many officials within the hierarchy of the civil and Party administration were regularly engaged in writing morale reports. The Security Service, the Propaganda Ministry and other governmental departments all had their agents throughout the population furnishing material for these intelligence reports.

The morale reports give a picture of German morale as seen by German officials during the war. They are of great value as a secondary source of information, both for their accounts of morale and for the insight they furnish into German official thinking. The reports are limited, however, in that the Germans did not avail themselves of modern scientific techniques for the study of popular thought and feeling. Quantitative controls, sampling methods and research design were completely lacking in the collection and interpretation of the material for those reports. Hence the German intelligence reports cannot be used to obtain estimates of the degree and extent of weak or strong points in morale with any precision. They show the problems of maintaining war morale in a totalitarian state and they give illustrations of the qualitative aspects of these problems, but they do not indicate in any quantitative manner the relative extent or depth of the various elements of morale. In addition to the defects in the collection of data, the morale reports suffer from two possible sources of subjective bias:

- 1. The tendency for the reporting official to give his superiors the type of material they wanted;
- 2. The tendency for the reporter to exaggerate the importance of the attitudes and beliefs of his own social group.

The following analysis of morale reports is based principally on a series of 33 monthly reports covering the period February 1942–October 1944 and addressed by the 'administrative head (Regierungsprassident) of the Main Franconia (Mainfranken) district to the Bavarian Ministry of the Interior. Copies were also sent to other State and Party officials. This material is supplemented by Party and Propaganda reports covering the Schweinfurt area (located in Main Franconia) for 1943 and the first half of 1944. Additional material includes a series of reports from the Wuppertal security service branch office to the security service regional headquarters at Dusseldorf, covering the period from the end of September 1944 to 23 March 1945; and nine similar reports from the area around Braunschweig, covering the months of September and October 1944; and several miscellaneous morale reports.

Dominant Features of the Official · Morale Reports

The particular series of morale reports described in this chapter has much in common with other sets of similar reports. The following characteristics are conspicuous in all of them.

The German Distinction Between Psychological and Behavioral Morale

German intelligence reports invariably distinguished between Stimmung which was the way the people felt, and *Haltung*, which was the way they behaved. The Nazi authorities themselves frequently admitted that the people were depressed or even demoralized, critical of the Party, the leaders, the propaganda and the war, but almost always such evidence of demoralization was compensated for by the continued claim that Haltung in any case was all that might be expected. Frequently, also, admissions of poor morale were expressed by the formula that only a "part of the population" held the defeatist point of view, doubted the official propaganda, or participated in whatever manifestation was referred to while the "majority" still had complete faith in the Party, or in victory.

The interaction between *Stimmung* and *Halt-ung* was important; so long as *Haltung* remained satisfactory, the authorities could afford to ignore a certain lowering of popular morale. As stated in one report:

In spite of all their worries and many dissatisfactions, the *Haltung* of the people is good—and this is what really matters, not the *Stimmung*, which is subject to outside influences.

But the official concern was based on the recognition that *Stimmung* had its effect on *Haltung*. A report written in September 1944 makes the admission:

In general the *Stimmung* is extremely unstable, and in accordance with the development of events can take either a negative or a positive turn, which would then have an effect on *Haltung*.

The question of how behavior could remain satisfactory when morale became consistently poorer is one which other parts of this report attempt to answer. An obvious assumption would be that habits of discipline, on the one hand, and fear and coercion, on the other, might be responsible for this situation. An interesting admission on the part of the Security Service to this effectis found in a report to Berlin of March 1944:

The *Halting* of the population can be called unobjectionable, the reason being partly the comparatively widespread fear of defeat, and partly kind-heartedness, which shows itself in the readiness with which the inhabitants of the western part of the region received evacuees from Augsburg. Principally, however, the outwardly good conduct can be attributed to the authoritative pressure which leaves no room for any extended negative activity. It is the fear of punishment which precludes especially severe expressions against the state leadership.

The Effect of Military Events on Morale

During the war the most important single factor affecting morale was the course of the actual fighting, including the air war; *Stimmung* varied with the ups and downs of the over-all military situation. But the widespread nature of the war meant that a number of campaigns were being waged simultaneously. In estimating morale, the authorities were faced with both positive and negative military events, and they discovered that the depressing effect of a defeat in one sector was frequently offset by a victory elsewhere. To a certain extent this compensation could also be manipulated by propaganda. Thus, when things were going badly in one area, the official propaganda could help to redirect attention to a more favorable aspect or, if things were going badly everywhere, it could distract the people by promising a future success. The obvious danger in this sort of manipulation lay in arousing expectation which demanded fulfillment. Successes of nonmilitary nature were also manipulated in the same way.

The present series of 33 German intelligence reports mention morale factors in the following order of frequency: Eastern front, *air war*,¹ U-boat warfare, military and political events concerning Germany's allies, agricultural problems, events on the West front, rations, African campaign, heavy casualties.

The Air War and Morale

To the German civilian, the air war was one of the most important of military events, ranking second only to the fighting on the Eastern front. In the 33-month period covered by the Main Franconian reports, enemy air raids are mentioned as a primary factor affecting morale in 20 reports. (During this period there were five raids on Schweinfurt, located in this district.) Air raids are mentioned four times in 1942, in April, July, August, and September, each time in connection with attacks on specific cities or regions. In 1943 the raids are mentioned as one of the primary factors influencing morale during every month from May on. In 1944 the bombing was mentioned in every month from January through May; it was displaced by the invasion in the June and August reports, but reappeared in July and again in September and October.

With the increasing frequency and intensity of raids all over Germany, the air war gradually displaced the Eastern front as the most important factor affecting morale. Following the invasion, the air raids were displaced by the fighting on the Western front, according to these reports.

It appears that the raids did not have to be directed against a particular area in order to affect adversely the morale of the population in that area. The news of the raids in other places was effective in depressing morale because it intensified both fears of losing the war and feelings

¹It is interesting to note that bombing is also placed second in rank as a cause of morale decline by German civilians. See cb. 2, pt. I, vol. I.

of helplessness, and also created anxiety about future raids against the local area.

Retaliation Weapons as a Morale Stimulant.

The interaction of favorable and unfavorable factors determined the level of popular morale. As the war continued, the negative factors increased and there were fewer positive influences to offset them. As stated in a morale report from Braunschweig in August 1944,

Dangers which at the moment one can see no possibility of overcoming appear in every quarter. If one seems to be somewhat relieved, a new one develops somewhere else.

This situation called for the application of some sort of morale-booster by the authorities to prevent *Stimmung* from sinking too low.

One of the great stimulants to morale applied by the Nazi leaders was the promise of retaliation and secret weapons. The purpose, partially realized, was to strengthen the people's will to hold out and to convince them of the possibility of a final German victory. There is evidence that as the air raids grew heavier in 1944, faith in the eventual application of the new weapons was the main sustaining hope of many Germans. Until the invasion, the desire for retaliation was closely tied up with the air war, while after June 1944 it was associated also with the hope of defeating the enemy attack in the West.

The cry for retaliation appears first in June 1943 in the Main Franconia series of reports. The V-1 rocket was not put into action until June 1944, so that for a year the patience of the people was under the greatest strain while the frequently heralded and greatly desired wonder-weapon did not appear. It is not surprising that all sorts of rumors of coming miracles circulated. There is evidence that under such strain the people began to doubt the existence of the weapon and began to lose faith in the Party and its leadership as well. When the V-1 was finally launched, its daily use was closely followed, and the absence of any mention of it in the communique for a day or two again aroused the greatest anxiety.' Furthermore, the air raids caused great fear that the factories producing the V-weapons might be hit and their production either rendered impossible or so delayed as to render them ineffectual.

Late in 1944 and in 1945 the people seem to

have lost all hope of winning the war. Their mood was one of complete demoralization bordering on panic. The inability of the V-1 and V-2 rockets to halt the air raids or to interfere with the Allied advances in the West removed their last hope. The question which naturally arises is how and why they kept working. The morale reports do not attempt to answer that question, except for occasional suggestions that propaganda was influential.

Fluctuations in German Morale as the War Progressed: A Chronology

A chronological summary of German official , reports during the war gives some insight into morale fluctuations and official concern with the growing defeatism.

Morale is Good in the First Half of 1942'

In February 1942 the military picture ap--peared bright. In view of Rommel's victories in Africa, a successful defense on the Eastern front, and U-boat activity off the American coast, to say nothing of the favorable progress of the Japanese ally, the popular Stimmung was characterized as good. But the hard fighting in the East continued in March and April, with no victories being announced, and the heavy casualties of this campaign, added to reductions in food rations and agricultural worries, began to depress the morale, which was now characterized as "serious." Air raids on Bonn, Kiel, Cologne, Rostock, and Luebeck also caused worry. In May 1942 there was an upswing, due to military successes and good weather.

The great victories on the East front, with their high figures of prisoners and booty at Kerch and Kharkov, the successes of the U-boat weapon, and the victorious battles of the Japanese have increased the confidence in a successful outcome to the war and the hope that the Russian war can still be ended this year.

At the same time, the end of the dry spell relieved the anxiety concerning the harvest and the next year's food prospects (an important factor in this agricultural area). This confident mood continued through June as the German arms continued to be victorious in Africa, in the East, and at sea: In July of 1942 a number of reductions in rations and new food shortages preoccupied the people, and the air war had a depressing effect.

The heavy air raids on cities in northwestern Germany and, more recently, on Saarbruecken and the Palatinate, have raised doubts in wide circles of the population.

Rumors about the bomb damage were contradictory, but

In general it may be said that the bombedout evacuees would serve the public interest better if they were more discreet concerning the results of the raids.

Contributing to an improvement of morale were the German victories on the southern sector of the East front and further U-boat exploits.

The favorable progress on the Eastern Front and the successful smashing of the "invasion attempt" at Dieppe were convincing enough to raise the *Stimmung* again to "good" in August, but the big raids on the cities of the Main estuary and the later attack on Nuremburg considerably strengthened the fears of the population that Main Franconian cities would soon be attacked. These fears were great enough to find expression in overt behavior. The inhabitants of the larger cities were removing their valuables to the country, and some of the large textile companies of Wuerzburg were also transporting the major portion of their stocks to safety.

The problem of caring for evacuees from other regions, which from now on was to be one of the constant irritations for the local population, is mentioned in August for the first time. With' better supplies, worries over the food situation retreated again to the background.

The Eastern Front and the Air War Are Sources of Worry in the Fall of 1942

The Eastern Front presented heavy fighting again in September of 1942, and the intensified air raids helped to "bring home to the population the seriousness of the war." People were beginning to realize that the war in the East would not be over as soon as had been hoped and that more sacrifices would be necessary before Germany won. The city population was still nervous over the possibility of raids and continued to evacuate property. People were happier about the food situation since the bread and meat rations had been increased, but housewives continued to complain that they would have preferred an increase in the fat ration. The frictions with evacuees from Duesseldorf continued, and there were increasing difficulties connected with supplying them with the necessities of life. Again a complaint was made that their tales of destruction had an unfavorable effect on the general morale.

In October, the harvest season, people were again focusing their attention on 'food. The speech of the Fuehrer, and Goering's famous speech promising that the Germans would eat no matter who in Europe starved, helped to raise the confident mood, while the increase in rations invited favorable comparison with the first World War in which rations were seriously cut in the fourth war year. Evidence of war weariness is to be seen in the widely circulated rumors of an imminent armistice between Germany and Russia.

Since the wish is father to the thought, the population is very receptive to such rumors and hopes for a surprising end to the war, at least with Russia * * *. Such rumors are a great danger for the popular *Stimmung* since they bring about disappointments as soon as their lack of foundation becomes evident.

By the end of December 1942 the unfavorable impression made by the Anglo-American occupation of North Africa is said to have gradually disappeared. The leadership was credited with taking effective measures to achieve this result. However, the Eastern Front was again becoming a source of depression, and rumors concerning Stalingrad were rife. Nevertheless, the claim was made:

By and large the *Stimmung* can still be considered firm and confident. People clearly understand what a lost war would mean for Germany and understand that the war must

- be waged to a successful conclusion, whatever

it may cost and however long it may take.

The confidence was said to be further bolstered by the Fuehrer's New Year's speech.

Stalingrad the Main Factor during the Early Months of 1943

At the beginning of the year, the Stalingrad battle was the focus of attention. It was followed with particular interest by the Main Franconian population, since many men from the area belonged to the Sixth Army. Although "overtimid souls" are said to have become doubtful of final victory, the predominant part of the population is reported to have maintained its will to hold out, which was strengthened by the speeches of the Fuehrer and other leaders on 30 January, the tenth anniversary of the accession to power. It is admitted, however, that the Party was holding waves of meetings to "keep people in line."

The actual surrender at Stalingrad proved a great shock to the population. The February report reasoned:

The German people had been spoiled by their military successes up to now and were not prepared for a defeat. According to the disposition and the political attitude of the individual, one can hear the most diverse opinions. One part of the population accepts the situation with quiet confidence. But the faith in final victory of another part of the population has begun to falter. Here the waves of party meetings take hold and carry the falterers along. The large numbers being drafted, worry over the accomplishment of agricultural tasks, the imminent closing down of business, the labor service for men and women, all these are additional burdens for the popular morale.

Helping to overcome the low point in morale were "the Wehrmacht communiques of the last weeks with their firm and confident tone, and the three special announcements of U-boat successes."

The March reports of 1943 still evaluate morale in terms of Stalingrad. Morale is characterized as composed and confident again, if it could not yet be called optimistic. The stabilization of the Eastern Front, together with news of territorial gains in the East and U-boat achievements, succeeded in overcoming the low morale which followed the Stalingrad defeat and the subsequent great territorial losses.

Haltung is said to be good in April, but the Stimmung was divided according to whether or not the individual saw the situation in the East with confidence or anxiety. Periods of military inactivity are noted to be especially favorable for the formation of rumors. High casualty figures had a detrimental effect on Stimmung. In the Schweinfurt area there were many rumors referring to bombing. One states that many of the cities which had already been attacked by air were to be fully razed by the Fuehrer's birthday (20 April). People who had relatives at Stalingrad tuned in on the Russian radio stations, hoping for news of the soldiers.

Air Raids Begin to be a Central Problem

Haltung continues to be characterized as good , in May 1943, but the *Stimmung* is said to be depressed, because of the defeat in Africa, the great drop in U-boat claims, and the uncertainty regarding military developments in the East.

Further, the terror attacks by the American and English air forces against the German and Italian cities and especially against the German dams, which are gaining in number and intensity, are discussed with concern.

By June 1943 the people were even more depressed, principally because of the air raids on the Ruhr cities, which caused great worry. The report of the local Party leader in Schweinfurt to the regional Party leader in Wuerzburg ingeniously explains that since there are no great battles occurring at this time, the people's attention is focused on the Rhineland. In other words, there was no counter-stimulus to overcome the effect of the raids. The reports by refugees intensified the crushing effect of the raids, and fantastic rumors concerning casualties circulated. The lack of news of more U-boat successes was considered especially painful. There was much talk of the retaliation promised by Goebbels in his Sportsplatz speech on 5 June, which was awaited with "burning impatience." People were asking, "How much longer is it to go on like this?" and newspaper articles commented that, "Retaliation was naturally promised by the leaders, otherwise we would fail of victory. But when will it come?"

A comment by the Party chief in Schweinfurt demonstrates that resentment is turning against the Party:

Also the malevolent turn of phrase is frequently heard that the present time reminds one very much of 1918. The people in question are also hard to convince. When one tries to enlighten them, they say, "Oh yes, you belong to the Party, you have to talk that way."

Further evidence of this turning against the Party is the complaint in the Propaganda Ministry Intelligence Report that the use of the German greeting "Heil Hitler" had markedly fallen off in the Schweinfurt area, although it was formerly more employed there than in other regions. The local propaganda leader comments:

Is that not a cause for reflection? It turns out again and again that one's way of greeting is a symbol of one's attitude.

Late 1943: Political Events, Air Raids and Eastern Front

The Italian political events and the air raids served to depress morale in July 1943, although the "collective behavior" of the population is described as not bad. One rumor in circulation was that, "With Italy's collapse the war is over, for we cannot occupy the Balkans alone." There was a general demand for retaliation, which "would be the decisive means for strengthening the popular morale." There was temporarily less concern over the outcome of the eastern fighting, "no doubt partly due to the positive and confident attitude" of the soldiers home on leave.

The 46,000 evacuees who were quartered in the Mainfranken province caused difficulties. They were frequently dissatisfied with the conditions and many of them returned home.

Many of the bombed-outs are negativistic. Through their somewhat exaggerated reports they cause false notions and strengthen the fear that the enemy fliers, after destroying the cities on the western border of the Reich, will gradually also smash the cities of central Germany.

The bombed-outs are a very unfavorable influence at the prescribed air raid drills in the country. They "know it all" and persuade the population to slacken in their ARP preparations.

The generally unfavorable military picture in August caused a noticeable deterioration in the popular morale. The primary reasons given are the confused Italian situation, the loss of Sicily, the evacuation of Orel, Kharkov and other Russian cities, and especially the air raids.

In particular the attack on Schweinfurt has badly shaken the sense of security of the Main Franconian population. It is generally hoped that the frequently announced retaliation against England, which will bring the air raids based on England to a halt and otherwise have a decisive effect on the course of the war, will soon be put into effect.

The problems concerning refugees were increasing, and the number present in the area had risen to 53,000 with another 25,000 in prospect.

At the local level, satisfactory behavioral morale is reported by the mayor of Schweinfurt, although reports show that following the raid there was great nervousness and anxiety. The report covering the local area declares:

The belief in final victory of a not inconsiderable part of the population has doubtless been strongly shaken, and already one hears voices demanding peace at any price, since the war is already as good as lost. At the same time all sorts of rumors are circulating; e.g., to the effect that * * * our enemies demanded that we cease hostilities by the 15th of August or else 40 German cities would be razed to the ground, etc. The present Stimmung or more specifically Haltung of a not inconsiderable part of the population is therefore critical. Only a quick and important military success can bolster up again the belief in final victory.

Toward the End of 1943 the Italian Situation and Military Events Depress Morale

In September 1943 the Stimmung was still serious for much the same reasons, the Italian situation, the German retreats on the East front, and the air raids. The military implications of the Italian events caused such worry that, according to the Schweinfurt party reports, they even put the raid on Schweinfurt somewhat in the background of attention. The promised retaliation was the subject of various rumors:

The statement is remarkable that on the island of Usedom factories for the production of new secret weapons have been destroyed by enemy air raids and therefore retaliation will again be delayed. Others claim that the rew weapon is now being tried out in Nor-

way.

The Fuehrer's speech of 10 September to the effect that Germany had the technical and organizational means not only to break the air war but to retaliate effectively, was an attempt to bolster confidence and silence the growing doubts.

The work effort of the population at the harvest

time earned a rating of good *Haltung* in October 1943, but the *Stimmung* was still serious. The general military picture and more specifically, the war in the east with its high casualty rates and the air raids, still caused worry. The people are said to be awaiting the retaliation with great longing.

At the local level, the Schweinfurt evacuees are said to have good *Haltung*, and the population generally behaved more calmly during the second raid on the city (14 October) than in August. However, the local Party leader reports that there was great nervousness following the raid. At every new alert people rushed out into the countryside. They had partly lost their nerve. The raid had put the fighting fronts somewhat into the background.

In November 1943 the *Stimmung* was still serious. The interaction of various morale-determining factors is evident in the report by the president of the Main Franconia district:

All in all, the general *Stimmung* is serious, in keeping with the military and political situation. The counter-attacks which we have been launching for some time on the East front doubtless have contributed to a more confident judgment of our military prospects. On the other hand, it is considered more and more a sign of weakness that we have to take one terror raid after another without being able even to reply in kind. The Fuchrer's speech of 8 November and the wave of Party meetings have recently strengthened the power of resistance of the broad mass of the population. The reflection, however, that the destructive blows against the home front also frustrate the preparations for retaliation, will not be stilled. Retaliation is therefore anticipated with great longing.

The air raids and the retaliation were the principal factors affecting morale in December of 1943. The people were depressed and were expressing doubts of the retaliation measures. Elitler's New Year proclamation and the speeches of other leaders at the holiday season are said to have strengthened the popular will to resist, but the propaganda was evidently of a negative nature, for it is said that "People are thoroughly convinced of what Germany would have to expect if our enemies succeeded in defeating us."

Morale Fluctuates in Relation to Raids (January–June 1944)

In 1944, the *Stimmung* was consistently depressed by the raids, the Russian advances, and the breaking away of Germany's eastern allies. The invasion surprisingly brought a relief, for people thought that now a decisive defeat could be inflicted on the enemy, and the use of V-1 ended the suspense of the long wait for the retaliation.

In January the news of the German air raids against south England was received with great satisfaction. There was still a cry for retaliation:

It was noticed that the Fuehrer in his speech of 31 January 1944 made no mention of retaliation. This omission is frequently interpreted as meaning that the retaliation will perhaps come all the sooner.

The heavy raid on Schweinfurt in February 1944 resulted in further depression, to which the Eastern front and the heavy casualties contributed:

People ask themselves what the future development will be if one munitions plant after another is heavily damaged or destroyed, and they fear that in time also the medium-sized cities will become the target of enemy attacks.

People were concerned as to whether or not the raids on England constituted the longed-for retaliation.

While some consider these attacks to be the opening blow of retaliation, others explain that they represent no real reprisal for what the English and Americans have inflicted on us. The belief in a decisive retaliation which will change the military situation in our favor is therefore no longer so general as was the case earlier.

The flood of evacuees in the area continued to have a more and more depressing effect, and the air raids together with the Eastern front kept the *Stimmung* depressed. The March report gives a picture approaching demoralization.

The mayor of the city of Schweinfurt points out in his report that the hourly reports on the air raid situation over the radio have a particularly unfortunate effect. There are many fellow Germans who keep their radios turned on from morning to night, only in order to hear what is said about approaching planes. As soon as enemy planes are announced anywhere over Reich territory, it's all over with peace and quiet.

The nervousness of the population is also revealed in another incident:

The setting-up of flak installations in several boundary points around Wuerzburg has been received by the population with mixed feelings. Since the city of Wuerzburg has so far been spared enemy attacks, they see in this fact less a protection for the city of Wuerzburg and its environs than a point of attraction for enemy fliers.

The *Haltung* of the civilian population is characterized as "somewhat intimidated" and is contrasted with the unshakable confidence of the front soldiers that the Soviet advance will be halted.

All faintheartedness, however, will disappear if the retaliation * * * is set into. action and succeeds.

In April and May of 1944 the Stimmung continued to be depressed by the raids, and the difficulties between the rural population and the evacuees from the bombed cities continued to be a focus of disaffection. The May report, written immediately following D-day, states that people were expecting hard and decisive fighting on all fronts and anticipated great military events. The retaliation was now expected momentarily.

There is, however, a not inconsiderable number of fellow Germans who no longer believe in the enemy invasion and the German counterblow. "Why an invasion after all?" many ask. (They say) That is no longer necessary, for the continued air attacks on Germany will accomplish the same goal.

The Invasion and the Normandy Campaign Lead to Demands for the New Weapons

In June the popular morale was dominated by the invasion and the German retaliation:

The news of the invasion front and of the application of the German weapon against England have found a passionate echo and have strengthened the population in its belief that the use of the retaliatory weapon is an answer to the technical superiority of our enemies.

The 20 July attack on Hitler's life naturally became the focus of attention. The hard defensive fighting on all fronts and the air terror at home led to a serious mood. People were longing for the end of the war but realized; in accordance with German propaganda lines, that only victory could guarantee "the continued existence of the Reich and the freedom of the people." Some disappointment with the V-1 evidently continued to be expressed, and people were waiting for more secret weapons.

Even if there were individuals who expected a decisive effect for the war, or at least an immediate cessation of enemy air attacks, and these exaggerated hopes were not ful-filled, nonetheless people are convinced of the favorable effects of the uninterrupted V-1 attacks.

In August the invasion front took precedence.

It is understandable that the surprisingly quick movements of the Allies in France, the surrender of Paris, and the fighting which is already taking place on the battlefields of the first World War depress the *Stimmung* of the population and strengthen the depression of many fellow Germans, who in addition to this are uneasy because of the lack of news from their relatives in the field.

In the face of the development on the Western land front which is arousing such concern, the successes achieved by the Navy brought only a momentary lift to morale. "If such blows were continually repeated," then people would have a reason to count on a successful interference with the enemy's bringing up of reserves. But a single success, however remarkable, is not effective * * *. The hopes of further secret weapons remain the single morale-boosting factor * * *. It is interesting with regard to the formation of morale that a definitely serious political event, such as the defection of Turkey, did not result in any essential and additional strain on people's spirits. "One more enemy now doesn't matter any more. We are lost anyway if we don't soon come forward with our new weapon * * *."

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Pessimism Gives Way to Defeatism Toward the End of 1944

The parallel with the first World War continued to arouse defeatist associations. In September it is reported that:

Comparisons with the development of the World War are made constantly. Everything is happening today as it did then, only this time we held out a year longer. The miracle of Stalingrad is comparable to the miracle of the Marne. In 1918 it was the home front which stabbed the front in the back. This time it's the other way around.

The enemy air superiority was in the foreground of all discussions.

People see it at the front as well as over the Reich itself with helpless fury. The criticism is becoming more and more sharp and merciless, even against leaders and specific programs.

Certain individuals were said to be concerned with the problem of what they should do if the Anglo-Americans were to invade northwest Germany. The Party ordered them to carry out a scorched-earth policy and flee.

In discussions on this topic a large part of those concerned expressed the decision to stay in Hamburg, because they trusted to humanity of the English.

However, others, impressed by German propaganda, awaited eventual occupation with greatfear because of what they heard of the administration of Anglo-American occupied territory in France and Italy. The only popular hope for a' change in the course of the war lay in the new weapons which-had been promised, and the next several weeks were expected to decide the outcome of the war.

The progressive destruction of the armament industry is increasingly disturbing. Stories telling of the destruction of big armament factories in all regions of the Reich are calculated to impair seriously the hopes of the completion of our new weapons.

A certain minority was said really to believe that a change in the air war would soon be achieved by the new weapons about which fantastic rumors were circulating. This minority, however, is not very considerable. Their views are listened to by those having a skeptical attitude with a pitying smile.

The general pessimism had led to great skepticism concerning the official news services and propaganda. Even so-called strong characters were being infected with the general demoralization. But, at least according to this series of reports, faith in Hitler still remained.

It is particularly depressing for those whose Haltung has been above criticism and who have kept their heads high to find that they are generally considered to be "not quite all there" if they express out loud their confidence in the future. They find a sympathetic ear most easily among their fellowmen if they refer to the personality of the Fuehrer as the only consolation and as a support above all temptation. "It would be contrary to all reason, if one were to believe that this man could deceive us now when it is a matter of the life or death of all Germans, and would persuade us to hold out still longer if there were absolutely no prospects for victory. The Fuehrer alone knows whether or not we can manage it, and he would not demand further sacrifices from us if further resistance were really . meaningless!"

The workers in armament industries were more than ever convinced that the raids were so destructive to the war industry that by October all production facilities would be destroyed, so that even the most wonderful inventions would be of no 'use. The Western front was now considered the decisive one.

In connection with the continuing raids, the alarm announcements were no longer taken very seriously.

"Attention, attention. Over enemy territory there is not a single German airplane. End of the German Air Force." This illustrates the impression of very many people of the present value of our air force.

A report of the same period mentions the great number of rumors in circulation concerning peace negotiations. Interestingly enough, these are directed at the western powers. However, the report continues to the effect that the question of the necessity of the war with Russia was again being discussed. The writer of the Security Service report criticizes the official atrocity propaganda of "strength through fear" as leading not to increased performance but rather to a condition of apathy. People were expressing thoughts of suicide in case things should get too bad, but at the same time they were coming more to the opinion that "the enemy is not quite so bad" as depicted by the German propaganda. The propaganda line of the horrors of defeat is credited in the report with keeping up the *Haltung* of the Main Franconian population, in spite of an almost catastrophic Stimmung.

Air raids and their consequences were the principal morale-determining factor. By October the number of persons from outside of the region who had been evacuated to it, totaled 145,382.

There was no faith in a German victory, according to an October report from Wuppertal, but general hope for an early end of the war, possibly through a compromise with the enemy. It was being said that too much had been asked of the people and that everything humanly possible had been done. The only further possibility was total collapse. The people were saying they would prefer "the end with terror rather than terror without end," a phrase very often encountered in morale reports from many regions.

The air superiority of the enemy was declared the decisive factor for the end of the war. No possibility was seen for overcoming this superiority, although the use of V-1 provided some bolstering of morale. At the same time, dissatisfaction was expressed that fighter plane production was subordinated to V-1.

A general turning against the Party was also reported. People were skeptical of the propaganda on new weapons and sought to find the person responsible for delaying the program. The "Heil Hitler" greeting was dropped out of use. The speeches by Goebbels, Ley, and other leaders were openly criticized.

It was also said that one might still trust the Fuehrer but certainly none of the others, because it was apparent that within the ranks of the leaders treason and sabotage were rife.

However, another report declares that it was common talk that the masses had lost faith in Hitler, too.

Hitler's announcement of the inauguration of the *Volkssturm*² is reported to have met with almost 100 percent disapproval, and his speech at the beginning of November, in which he affirmed his belief in a German victory, met with an unfavorable response.

An increase in listening to foreign brondcasts was noted. There was special interest in programs which gave the names of prisoners held in Allied countries.

In December 1944 and January 1945 the steadily increasing raids were having increasing demoralizing effect on the population.

The people are beginning to suffer from what is called Bunkerfever and inability to work. Newspaper articles, in which the people are told that the days of the air terror are numbered, have exactly the opposite effect of what they had been intended for. If, subsequently, another air raid occurs the depression of the people is all the worse. The faith in our leading men, including the Fuehrer, is rapidly disappearing. They are thoroughly fed up with Goebbels' articles and speeches. and say that he too often has lied to the German people and talked too big. The attitude towards National Socialism is characterized by the following saying: "If we have not yet collapsed it is not because of National Socialism but in spits of National Socialism."

The Rundstedt offensive and a simultaneous, temporary decrease in raids improved things slightly toward the end of December, but a new heavy raid on I January and the stalling of the Ardennes offensive, soon led to a further relapse in *Stimmung*. At the same time the local population was incensed over the fact that the heavy raid on Wuppertal was not mentioned in the communique. The Russian drive on Silesia in January completely removed any lingering hope of a German victory. People said that if Silesia and its industry were out of the running, the war was lost.

The Defeatist Mood Approaches Panic in 1945

In February and March the defeatist mood approached panic. The Russian advance and the air raids were the focus of all attention. Women were seen weeping publicly at the stories of the sufferings in the area of the Russian invasion.

Nobody believes any longer in retaliation or in new weapons. There is no trust in any-

² The Volkssturm, a type of home guard for last ditch defense, was inaugurated by Hitler in October 1944. Since people had been given to understand that it was to be used only for local defense, they began to object strenuously when the men were slupped to the various fronts.

thing that the government announces. It is said that we shall never have a tolerable peace as long as the Party is in the saddle.

Rumors were rife concerning peace negotiations, von Papen usually being named as the envoy. Other rumors told of the collapse of military resistance on both the Eastern and Western fronts. The only consolation of the people was the thought that they would be invaded by the Anglo-Americans and not the Russians.

Feeling was even turning against Hitler.

The women make the accusation that the German population has been doomed to death by the terror raids. There are no defense measures. Nobody can answer for this any longer, not even Hitler.

But Goering was made the chief target.

Goering is called the greatest criminal of all, since it is he who is responsible for the cruel air terror. By the air terror alone the resistance of our soldiers has been broken * * *. If Germany is going to the dogs, it is Goering's fault. Although he had command of all the resources of Europe, no new type of airplane had been issued since 1938. Also, the defense had been so neglected that today the enemy air force ravages all Germany without a shot being fired.

The civilian shortages provided the last straw. It is interesting to note, after reading of the utterly hopeless feeling of the population that it was the food shortages which led to the first expression of revolt to appear in these reports.

There is a tremendous shortage of coal, flour, salt, victuals, and potatoes. In the ranks of the workers, it is said_that if on top of everything else they were expected to go hungry, they would rise and refuse to work.

At the end of March it is said that even in official circles it was generally believed that the war was lost! A passage from "Mein Kampf" was being increasingly cited:

If a nation is led to ruin, its people have not only the right but also the duty to revolt.

CHAPTER 2,-MORALE AND BEHAVIOR OF INDUSTRIAL WORKERS

The crucial spot in which to examine the effects of lowered morale upon the German war effort lies in war production. Did depression in general, and defeatism and disaffection from the Nazi regime in particular, show themselves in lowered industrial production?

The testimony of industrial informants and plant representatives throughout western and southern Germany indicates that war production was in some instances critically reduced by depressed morale, particularly during the final months of the war. Official German statistics do not reflect this condition because such effects are usually concealed or falsified in the original reports and because available data do not include the last months of the war, when cumulative effects of lowered morale were becoming most serious.

The majority of the industrial population was obviously not immune to the morale-depressing influences which affected civilians in general. Discouraged workers, however, are not necessarily unproductive workers, and German war production kept up amazingly. In fact, according to official German figures, Germany's domestically produced gross national product showed an annual increase during each war year. The 1944 gain was 3 percent, one of the largest. Armament production, which made up an ever larger share of the total product, increased at a much faster pace. According to the official reports, 1944's gain over 1943 was no less than 25 percent. The total increase was accomplished, moreover, with little or no increase in the total labor force after 1940, and notwithstanding the substitution of women, adolescents, and foreigners for many skilled workers. Even in the armaments industries, the total labor force increased by only 3 percent between 1943 and 1944.

For a time, then, German war production held its own and even gained, in spite of declining morale. But in August 1944 the arms production program began to decline, in spite of the fact that nearly everything else had been sacrificed to it, and dropped every month thereafter at an increasing rate. Between July 1944 and the following January, when very little German territory had been lost to the Allies, the drop in arms production was a full 30 percent. A certain amount of this loss, although by no means the major part, resulted from the cumulative effects of loss of morale.

War production, good as it was until mid-1944, might have continued to rise if morale had not been depressed. The percentage increases in German war production were not large in relation to the possible productivity in a rationalized, nationally coordinated war economy. They were slight when compared to our own percentage increases in the production of war materials.

There are three major ways in which lowered morale may be expected to affect war production : absenteeism and lower productivity, both of which had significant effects upon German war production, and sabotage, which did not. A more detailed analysis of these three kinds of effects follows.

Absenteeism

The Problem

Demoralized workers may be expected to find ways and means of staying away from work more readily and more frequently than workers whose morale is high. In wartime Germany the limits within which absenteeism was possible were rather narrow. The codes specified by the Labor Office were very specific. Controls were rigid and penalties could be severe. Strong motivations of a voluntary nature, moreover, tended to keep Germans at work. As a people, they were accustomed from the cradle to habits of industriousness and obedience. Their livelihood depended upon their labor. Considerations of patriotism were significant. With sons and husbands at the front, the people knew that their services were indispensable if victory was to be achieved.

Bombing did much to weaken the effectiveness of the controls. When, in the latter months of the war, the need for them became greatest, it became increasingly difficult to enforce them. Spontaneous desire to continue at work also declined. Money was less needed because there was little to buy and because so many people received allowances for bomb damage. The problem of getting to the place of work became an increas-

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ingly difficult one. With the conviction that the war was hopelessly lost in any case, considerations of patriotism became less potent. And so, as bombing created new kinds of excuses for remaining away from work, an increasing number of Germans took advantage of them.

The effects of increasing absenteeism were not immediately apparent. Throughout the armaments sector of the economy, in particular, various types of standardization, concentration in larger plants, decrease in number of types produced and other kinds of industrial rationalization introduced efficiencies more than adequate to cancel out the effects of lowered morale, at least until late 1944. Moreover, the best workers were kept in the arms industries. The growing absenteeism rates more or less coincided (unfortunately for purposes of this analysis) with other forms of war loss, particularly as a result of the bombing of industry and transportation. Hence the exact effects of absenteeism upon productivity cannot be computed. The following paragraphs provide evidence for our conclusion that these effects were actually significant and, in some instances, serious.

Types of Absenteeism

The only legitimate reasons for authorized absenteeism were earned vacations, sickness and post-air raid needs, such as repairing damage at home, reestablishing one's domicile, or searching for relatives. Both internal and external evidence. however, indicates that the distinction between authorized and unauthorized absences was an exceedingly flexible one in German statistics. According to figures in table 59, prepared by the management of the Ford Works at Cologue-Neihl, a plant only slightly damaged, the percentage of absenteeism due to sickness doubled between 1939 and 1944. Absenteeism conveniently labeled "other," which included vacations and absence for dubious reasons, increased from 1.8 percent to 12.2 percent in the same years. Losses due to air attacks increased between 1942 and 1944, but remained much smaller than the other two categories.

The conclusive evidence for this practice of mislabeling absences comes from interviews with managers, personnel officers and other industrial representatives who were interrogated. Many of these informants were frank in stating that records of absenteeism could not be trusted. Repeatedly they testify that workers were given time off after air raids when they could not or would not have worked anyway. This was obviously reported as "authorized" absence. "Phoney" leaves for sickness and for repairing bomb damage were frequently granted and hence became authorized. Absent workers were reported as present, lest they be arrested and their services permanently lost.

Typical statements of these industrial representatives follow:

Shop superintendent, Kloeckner-Humboldt-Dietz Co., manufacturers of trucks, firefighting equipment, etc., Ulm:

We were generous in the granting of free time to those who applied for it, either for purposes of rest or for cleaning up.

Labor office representative, Bamberg:

A large number of reports from Army plants included the names of some individuals reported as working, who, I discovered, had not appeared to work for months.

Labor trustee for Bavaria, Munich (secret report, 19 Feb. 1941):

The cases of breach of labor contract, unauthorized absenteeism and particularly "blaumachen" (taking a day off) which come to the attention of the authorities are only the smaller part of those which actually occur.

In short, managers often came to authorize the inevitable. Hence it is necessary to do a great deal of reading between the lines of those industrial statistics.

The major unauthorized ways in which workers absented themselves during scheduled hours were as follows:

Failing to appear for one or more days, the practice of taking a "blue Monday" was commonly justified by workers as due to illness, or the need to look after property or relatives, following an air raid. Women frequently took unauthorized leave to visit husbands in the Army, to do housework, to shop, to care for children, etc.

Tardiness, often inevitable because of disrupted transportation, was more frequent than necessary, according to several of our informants. Remaining away following air-raid alerts during work hours was a practice particularly difficult to control or to check, because of general confusion and disruption.

Extension of authorized leaves, for sickness, for earned vacation, or for post-air raid needs, beyond the allotted time was not uncommon.

Changing jobs, theoretically impossible without approval, and constituting a serious "breach of contract," usually resulted from offers of better wages or from transportation difficulties due to bombing. Often the employer had no means of knowing, for days or weeks, whether a prolonged absence meant a change of jobs or merely "blaumachen."

Quitting work entirely, also a breach of labor contract, was fairly frequent on the part of women and very young workers.

The Effects of Various Degrees of Bombing

An Area Almost Untouched by Bombs.—The files of the Reich's labor trustee for the economic region of Bavaria, available from 1941–45, provide evidence concerning this region which was scarcely bombed at all until 1943. The important branch of Siemens-Schuckert in Munich reported, as early as March 1941, that 15 percent of its workers were absent at all times. Comparable statistics are not available for other firms, but the evidence suggests that their absenteeism rates must have been almost equally high. The following reports to the labor trustee are representative:

The increasing amount of sickness among female workers is startling; however, it seems obvious that the sick calls are only a form of taking the day off (Kempten, 18 Oct. 1941).

Reports of breach of labor contract by female workers increase to a terrifying extent. The decline in the labor morale of women cannot be mistaken any more (Nuremberg, 19 Dec. 1941).

Breaches of labor contract have again risen by 50 percent as compared with previous months and have continued to rise for the past 8 months (Bayreuth, 21 Jul. 1941).

This decline in the number of breaches of labor contract (during the previous report period) does not represent an actual decline. The majority of plant managers, particularly in the larger plants, are reluctant to make such reports, feeling it preferable to avoid the long absences which jail sentences would cause. This position of the firms * * * has brought about a frightening deterioration of labor discipline (Memmingen, 18 Sept. 1942).

The last of these quotations is paralleled by several others showing that while reported absences declined in 1942, the decline represented simply the general discovery by plant managers that it did not pay to report them.

Absenteeism thus appears as a wartime phenomenon, quite apart from bombing, and it is most common among women. Women, moreover, made up 40 percent of the total labor force as early as 1941, and nearly half of it in 1944. By the latter year native women workers exceeded native men workers, so that the problem of female labor morale was exceedingly important.

The absenteeism problem was aggravated by bombing in Bavaria, but was already serious before any bombing occurred.

An Unbombed Plant in a Heavily Bombed Area-The Ford plant in Cologne, though slightly damaged, never suffered any serious interruption because of plant injury. Cologne itself, however, suffered very heavily, beginning with the big attacks at the end of May 1942. As shown in table 59, total absenteeism increased year by year with accumulated bomb damage to the city. Most of the absenteeism labeled "air attacks" is presumably due to alerts and to repairing air-raid damage outside the plant, rather than to the plant itself. Total absenteeism during the 3 years of heavy bombing increased from 17.6 percent to 28 percent, figures significantly higher than the pre-bombing rates, either in the same plant or in the Munich plant mentioned above.

It may be assumed that the normal absenteeism rate for this plant, apart from sickness, was not above 2 percent, since the category "other" remained at the constant figure of 1.8 percent from 1939 to 1941. By 1944 this rate had been multiplied by seven, and the increase coincides exactly with the years of bombing. The sickness rate doubled between 1939 and 1944. Since there is no evidence of unusual epidemics in Cologne during this period, this increase must be attributed to war weariness in general and to fatigue and nervousness resulting from air raids.

Absenteeism thus increased sharply in this heavily bombed city, even in a plant only slightly affected itself. TABLE 59.—Hours worked and lost, Ford plant, Cologne

Year	Hours worked	Percentage of planned manthours lo			
1 (871	(millions)	Sickness	Air attacks	Other	Total
(939	-10.0	5.4		1.8	7.9
1940	8.9	7.3		1.8	9.1
1941	8.3	7.3	·····	1.8	9.1
1942	9.2	6.1	2.3	9. 2	17.6
1943	10.9	8.8	4.8	10.3	23.9
1944	10.8	10/2	6.6	12.2	28.0

Five Heavily Bombed Cities.—In the absence of strictly comparable plant records, interrogations were held in several German cities. The interrogations were comparable in the sense that the same questions were asked of all informants. They were not comparable in the sense that some informants had access to their own records while some did not, and also in that they did not hold the same kinds of positions in the firms which they represented.' Some were general managers, others personnel managers, still others workers' representatives, etc. All, however, were in a position to have special knowledge of industrial problems, and only those whose testimony was believed to be essentially reliable are quoted.

There were five heavily bombed cities, in which 8 or more individuals were thus interrogated. Out of 58 interrogations, serious absentee problems are mentioned in 43, or 74 percent. There are a total of 70 references to the existence of absentee problems in one or several forms, and only 15 statements that some specific kind of absenteeism did not exist. (See table 60.)

The problem took different forms in different cities. In Cologne, Munich, Bremen, and Hannover a majority of the firms reported greatly increased illness and malingering rates as a result of raids, while in Hamburg the flight of workers from their jobs after big raids was reported in 10 of 17 cases. The increases in sickness rates were astounding. Rates running up to 15, 20 and even 30 percent of planned hours were not uncommon after big raids. This clearly was one "safe" way in which workers, whose attitudes were reported as being predominantly anti-Nazi in all five cities, could engage in passive resistance.

A sample of excerpts of the interrogations in these five cities gives some indication of the relation between absenteeism and poor morale induced by bombing. Each excerpt is from a different informant: Cologne.—Factories sustained no physicaldamage in the attack of 31 May 1942 but work in factories was impossible because of absenteeism as a result of evacuations. After heavy attacks following 2 February 1943 only about 30 percent would show up for work. After attacks on 28, 29, and 30 October 1944, workers left in chaos. Production completely ceased after 14 October 1944 due both to destruction and absenteeism of workers. Respondent is absolutely certain that air raids shortened the war through their effects on the economy and administration. Absenteeisni was widespread right into the highest places.

Hamburg.—After the July 1943 raid women made frequent and often "phoney" excuses about illness, need to care for children, etc. Control over this was not very strict. Also, after alarms that occurred toward the end of the day, workers did not return to their jobs. Sickness rates jumped from 9.3 percent in January 1945 to 15 percent in April. Much was due to nervousness, anxiety, and fatigue.

Breaking of labor contracts was most frequent among sailors, women and youth. In general, discipline was good, but after the July 1943 raids, 50–60,000 left Hamburg and did not return, though they were under obligation to do so and could have returned. Throughout the war, there was some slight increase in the number punished for violation of labor contracts.

Munich.—Some absenteeism occurred after raids because of bonib damage. After July 1944, there was a production loss of 30-40 percent because of absenteeism. The average illness rate was 10 percent; during the winter it rose as high as 30 percent. Attempts at malingering were controlled through the plant physicians.

Tardiness was caused mostly by interrupted means of transportation, which could not be considered an excuse. Workers always returned after raids unless their own district was hit.

Bremen.--Workers stayed away up to 2 weeks because of bomb damage, even when it was not all necessary. The armament program was considerably affected.

The peace time illness rate, approximately

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3 percent, went up to 5 to 6 percent during the war; malingering increased and, after the great raids in 1944-5, all types of absenteeism increased.

Hannover.—In January 1945, after the big raid, the total loss in man hours was 39 percent (illness, 19 percent; allowed vacations, two-tenths of 1 percent; leave without pay to repair homes, 16 percent; unauthorized, 3.7 percent). Before the big raid the total loss in man hours was 14 percent (illness, 8.6 percent; leave without pay, 5 percent; unauthorized, five-tenths of 1 percent).

Illness rates were too high in areas under danger of air attacks, and especially high among locomotive drivers and train conductors. The rate in the fall and winter of 1944 was 10-12 percent. Foreigners usually showed higher average sick rates.

Two Lightly Bombed Cities.—For obvious reasons, it was impossible to find cities, comparable in size to the five considered above, which received few or no bombs. The nearest possible approach, for purposes of comparison with heavily bombed cities, were Freiburg, bombed heavily only in late 1944 for a short period, and Luebeck, bombed heavily once in March 1942 and hit by a few scattered raids of the precision type in 1944. However, there were frequent alarms in both of those towns so that they do not offer a picture of cities completely unaffected by air warfare. Particularly notable is the indirect effect of air warfare on morale, even in lightly or unbombed cities. The knowledge that the rest of the country is being destroyed may add to general defeatism induced by an unfavorable military situation, and so lower the will to keep working. This seems to have been reinforced in the case of Luebeck by the interruptions in raw material supply in 1944, which made production difficult and gave tangible evidence of the disruptive effect of the bombings elsewhere.

In Freiburg, which was bombed four times more heavily than Luebeck (2,200 tons against 500), serious absentee problems developed in connection with the late 1944 raids, according to four of the eight interrogations held. These reports indicate very high illness rates connected with malingering, ranging from 9 percent to 25 percent. There were also four complaints of increased tardiness and two cases of mass flight from the job, in-violation of labor contracts. The impression given is that malingering increased sharply as a result of the late raids, coming on top of a previous deterioration of morale due to the general war situation and the indirect effects of air warfare through alarms, etc.

In Luebeck, the March 1942 raids had some effect, which wore off in time as no further raids occurred, but reappeared gradually in late 1943 and 1944 with the increasing alarms and worsening war situation. There were four statements on absentee problems in nine plants covered, but the increase in illness rates is moderate, up to levels of 4.6 percent, 5 percent and 10 percent. This compares with frequent references to rates of 20, 25, and 30 percent in the heavily bombed cities and in Freiburg after the heavy raids. It is significant that in Luebeck there were no instances noted of flight from the job and only two comments on a small amount of other unauthorized absenteeism.

The references to absentee effects are summarized in table 60, with the comparable figures for both heavily and lightly bombed cities.

TABLE	60.—Number	of	references	ŧo	various	types	of
		al	senteeism				

Type of absenteelsm	5 heavily bon (58 inform	nbed cities nants)	2 lightly bounded cities (17 informants)		
	Yes 1	Nol	Yes	No	
Increased sickness rates			-		
and malingering	32	8	8	4	
Undue time for bome			} }		
demage and repair	2	0	[1]	0	
Increase in unsutborized					
absence	11	4	4	a	
Increased tardiness	10	- 2	5	0	
Flight from jobs	15	. 1	2	C	
, Total	70	15	. 20	. 4	

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¹The heading "Yes" signifies a statement of presence in significant degree of this type of absenteelsm; "No" significs a specific denial that such absenteelsm existed.

Sample excerpts follow (each from a different informant):

Freiburg.—After the raids of November 1944, many of the women workers stayed away longer than necessary or didn't come back at all. Old workers returned promptly; the illness rate went up to 25 percent in 1944– 45. There was some sham illness on the part of women workers.

General lethargy and lowered morale were the basis for tardiness and slowdowns, even in plants where prompt return to work was still possible.

Luebeck.—There was a steady increase in absenteeism, from 8 percent in 1940 to 12 percent in 1944. Three-fourths of the increase was due to general dissatisfaction of the workers and abuse of the sick leave provisions.

There was some increase in absenteeism due to malingering after the big raid of 1942, but this declined after about 3 months. In 1944 morale deteriorated, and there was increased "gold-bricking" in connection with damage to homes from raids. Time lost through illness in 1945 was 10 percent (no estimate for previous years).

The Over-all Extent of Absenteeism

Official Statistics.—Regardless of local differences in degree of bombing, how extensive was absenteeism of all kinds? Two sets of Reich-wide statistics are available, each covering a few months of 1944. They tell a reasonably consistent story, though certain reservations are necessary, as noted below.

The first source is the records of the Government Bureau of Statistics, from which a study has been made of total man hours lost from all causes by various regions and for the whole Reich. The study indicates that losses of hours due directly to air attacks average approximately 4 percent of total hours worked for all industry for the entire Reich. (See table 61.) The data cover only the months from March to November 1944 for some series, and April to September 1944 for others, so that they do not offer grounds for comparison with periods in which air attacks were less important.

Losses of hours due to illness, leave and vacations, tardiness and other causes averaged 11 percent for the period. Such losses were relatively constant and show only a slight relation to the increased intensity of air attacks for the economy as a whole.

The rise from 10.8 percent in March to 13 percent in July may be partially due to the intensive bombings. More probably, however, it reflects a summer peak in leave and vacations, since there is no correlation between total hours lost and total bomb tonnage dropped by all air forces on all of Germany for this 9-month period. TARLE 61.—Percent of hours lost due to sickness, leave, etc. (entire Reich, all armaments firms)

1944	Hours lost	Total bomb tons (in thousands)	Break-down for September 1944	Percent
	Percent			
March	10.8	27	[1]ness	5. 5.
April	11.4	53	Leave	2
May	11.7	28	Tardiness, unexcused	
June	12:2	21	A bsence	1:
July	13.0	48	Operational causes	
August	12.4	43	Other	1 1.
September.	11.1	59		·
October	- 10.8	100	Total	11.
November .	11. 6	99		

Table 62 gives a break-down of various types of time loss due to air raids, for armaments plants and for all industries. Since there is little variation among the different months, the figures are given for September 1944 only, a month in which time loss was somewhat higher than average, but not the highest for this period.

TABLE 62.—Man hours lost from all causes, entire Reich, September 1944 as percent of planned hours

	Armanients plants	All plants	
Due to sir raids:	Percent	Percent	
Clearance and repair	2.3	2.0	
Raid alarma	1.6	1.4	
Damage to plant itself	. 2	. 2	
Other raid effects.	.4	. 9	
Total air-raid loss	4. 8	a. s	
Loss due to sickness, etc	11. 1	· 11.4	
Total	15.6	[5. 8	

In view of two known facts, total losses during the final months of the war must be considered somewhat greater than the 15 percent indicated in table 62. Absentee effects of bombing were increasing up to 1944, and presumably increased further in 1945, and official statistics tend to minimize the actual extent of time lost; e. g., workers were often considered to be on the job when they were in fact idle, or even absent.

A second Reich-wide source is a "strictly confidential" report entitled "Industrial Damage through Bombings,", published in Berlin on 28 September 1944, which provides the material for tables 63 and 64. Data are included only for the armaments industry, totaling some 11,000 factories, excluding oil and hydrogenation plants. Only the months of April, May, and June 1944 are available. Breakdowns are given both by region (table 63) and by industry (table 64). Since there are no significant variations during this 3-month period, data are presented for sample months only.

TABLE 63.—Man hours lost from all causes, June 1944, by region as percent of total scheduled hours

	Per- cent		Per- cent
Berlin	22. 2	Carinthia	16. 6
Iamburg	19.8	Munich-Upper Bavaria	15. 2
Lower Danuba	19. 4	Magdeburg-Anhalt	15. 3
Vienna	18.7	Weser-Ems	14. 9
Cologne-Aachen	18.2	Westmark	14, 6
Pomerauia	17.5	Wartheland.	14. 5
Essen	17.2	Moseiland	12.7
Upper Danube	16.6	Average, All Reich	14.7

It is clear, from table 63, that the most heavily bombed regions are those with heaviest absenteeism rates. Two further considerations indicate that the effects of bombing upon absenteeism are even greater than would appear from this table. Figures for the heavily bombed oil and hydrogenation industries are not included and, secondly, totally destroyed plants, like the dead, do not speak. Their 100 percent absenteeism is not included in these figures.

 TABLE 64.—Man hours worked, as percent of hours

 planned, May 1944, by industries

		Hours lost through—			
Industry .	Hours worked	Enemy action	Vacations, sickness		
	Percent	Percent	Percent		
Iron	85.0	3.2	11.8		
Metal.	86.9	2.4	10.7		
Steel and iron construction	. 84.8	8.4	11.8		
Machine	84.9	3.3	11. 8		
Motor car	83.3	8.5	13. 2		
Aircraít	85. 1	4.2	10. 6		
Electris	82.8	2.8	14.4		
Shipbuilding	. 84.1	3.9	12.0		
Total, all industries	85.5	2.8	11.7		

. For the month of April, the range of total absenteeism among the several industries is from 13.1 percent to 17.2 percent. Only about onefourth of all loss is attributed to "enemy action."

A more detailed break-down of the category "lost by enemy action" in May 1944 is as follows (all industries):
 TABLE 65.—Man hours lost by enemy action, as percent
 of hours planned

Repair and clean-up work	1.3
Air alarms	1.0
Bomb damage to plant	
Other bombing-related reasons	0.3
Total	2.8

These figures indicate clearly that only absenteeism which is *directly and immediately* related to bombing is so labeled. All absenteeism which could be attributed to morale factors is either listed as "vacations and sickness," or not listed at all.

British and American Absenteeism Rates.-These figures compare very unfavorably with data from Britain and the United States. In 11 British war plants during one of the blitz periods (April, May, and June 1941) absenteeism from all causes ranged between 3.6 percent and 11 percent, the average being 7.4 percent. This figure breaks down into 3.2 percent for sickness, 0.5 percent for injury, and 3.7 percent unauthorized. In 5,000 American war plants, average monthly rates ranged between 6.1 percent and 6.8 percent in 1944 for absenteeism due to all causes except strikes and vacations. Even including these additional causes, the average rates would remain close to 7 percent. 비람

Individual Estimates.—Officials of several German firms were specifically interrogated, during June and July 1945, as to unauthorized absences. Of those who gave comparable figures for more than 1 year, the replies in some cases were estimates. In others they were based upon records. Percentages are based upon total scheduled hours:

 TABLE 66.—Planned work lost through unauthorized

 absence

	1942	1943	1944	1945
Ford Co., Cologne (percent) Elektroscustic Neumuenster (percent)	1. 5	8,5 3.0	4.5 6.0	16.0
Deutsche Schiffwerk, Bremen (percent)		2.0	2.0	4.8
M.A.N. Nuremberg (man hours)	95, 000	99,000	107, 000	

Seven other firms provided estimates of unauthorized absence (without date), ranging up to 20 percent.

Some plants, on the other hand, reported little or no deliberate absenteeism. The Adler Werke (Frankfort), E. H. Huock (Ludenscheid), the Grille Werke (Hallein), Helmuth Sachae (Kempten), the Light Metal Works (Bonn) and Krupps (Essen) all reported unauthorized absenteeism of 2 percent or less right up to the bitter end.

Self-Reports of Absenteeism.—Our cross section sample of respondents was queried as to absence from work. The replies of all those gainfully employed, not just the industrial employees, are summarized in table 67.

. TABLE 67.—Percent of yainfully employed reporting absence from work

.

	ffeavily bombed citles	Moderatoly bombed citles	Lightly bombed citles	Unbombed cities
Some time taken				
off in 1944	187	75	69	67
Time off because of				
air reids	* 54	46	20	
Time off by sub-	-	·		
teringe	1 [4	. 13	23	ព

These percents do not add to 100 percent because a person may fall into more than one of the categories.

These figures show a consistent and statistically significant difference between unbombed and heavily bombed areas, as well as a slight difference between those lightly and heavily bombed. Furthermore, they confirm evidence from other sources as to the wide prevalence of absenteeism.

Gestapo Arrests.—One of the categories in the available Gestapo arrest statistics (covering the first 6 months of 1944 only) is labeled "refusal to work." The figures (for Germans only) range from 1,758 to 3,314 per month for the old Reich area. The estimated 1944 total arrests for this cause are from 26,000 to 28,000. This equals about one-tenth of 1 percent of the 1944 native German labor force, male and female, industrial and nonindustrial for this area. In view of the known practice of trying to shield workers from arrest, actual arrests of one worker out of each thousand for refusal to work in 1944 is not an insignificant figure.

Summary

Absenteeism was a serious problem in regions of Germany, such as Bavaria, before they were bombed. It was also serious in lightly bombed cities and in relatively undamaged plants in heavily bombed cities. There are approximately equal proportions of industrial informants in heavily bombed and in lightly bombed cities who report the existence of various types of absenteeism, but the estimates of the *amount* of absenteeism are substantially greater in the heavily bombed cities.

Total absenteeism rates during the last war year more than doubled the wartime rates in Britain and the United States, as well as prewar German rates, approaching 20 percent of all scheduled hours during the last months of the war. A large proportion of increased absenteeism was voluntary on the part of workers and was attributable to bombing more than to any other single factor.

Worker Productivity

German statistics do not exist from which total production figures may be related to comparable figures for hours worked. Both kinds of data, even if they existed, would be subject to question. It is known that workers were often reported as present and working when they were in fact absent, or when they were present and assigned to post-raid clean-up work, or waiting for supplies to arrive. Hence it becomes necessary to rely on information obtained from plant officials after the German surrender. In some cases our informants were able to refer to their own records. In others they had only impressions to report. In either case the figures cited are to be taken merely as best available estimates.

Heavily vs. Lightly Bombed Cities

Among the 58 informants queried in five heavily bombed cities (see table 60), 35, or 60 percent, indicated a decline in work performance on the job, including sharp decreases in productivity, increase in loafing, poor labor discipline and declining quality of work. There were 53 references to decreased work performance in one of these ways on the part of the workers, and 10 references to decreasing managerial efficiency. There were 29 statements to the effect that there was no change in work performance on certain specific scores and six to the effect that managerial efficiency was not lowered. The break-down on specific factors is shown in table 68.

The chief problems were: (1) a decline in enthusiasm for work, reflecting itself in productivity decreases running as high as 20, 25, and even 30 percent and averaging perhaps 15 percent; and (2) decreasing observance of rules regarding alarms, return to work and staying on the job. The following examples give a more concrete indication of the nature of the productivity loss caused by raids. Each excerpt is from a different informant.

Cologne.—After day attacks there was more loafing, frequent visiting the toilet, frequent questions of the foreman, more time used to clean machines and select tools.

The number of accidents remained fairly constant from 1939 through 1943, but jumped over 25 percent in 1944.

Hamburg.—Psychological and health factors were noticed after July 1943. Decrease in working efficiency was estimated between 10 and 15 percent. This increased to between 20 and 25 percent by July 1944.

"Production schemes were always fulfilled" —but these schemes had to be lowered 20-25 percent from the original. Production went down to 60-70 percent in the autumn of 1944 because of the effect of raids on morale. Without raids, schedules could have been met with. many fewer workers.

Bremen.—There was a definite decline in working efficiency due to poor morale, ill health, and nervousness. The average loss of working efficiency due to psychological and related factors rose from 2 percent in 1943 to 6 percent in 1944. In 1945 productive efficiency dropped to 50 percent and below; by March no one appeared for work.

The management of Deschimag and Foche itself left much to be desired. Deschimag was reprimanded by Saur of the Speer Ministry in 1943; managerial efficiency suffered from raids, but not as much as labor.

Munich.—There was an estimated productivity loss of 20 percent after the introduction of the 60-hour week. All manner of loafing and slowdowns existed. The production of prisoners dropped to 40-percent; of foreign workers, to 50 percent; and of women, to 70– 80 percent.

Faulty workmanship rose by 5 percent since the summer of 1944.

The replies of the informants appear in table 68 together with those of the informants in the two lightly bombed cities. Informants in the two-sets of cities report decreasing productivity in approximately equal proportions, but estimates of the *amount* of loss tend to be greater in the heavily bombed cities.

TABLE 68.—Number of informants reporting decreased productivity

Type of lowered productivity	δ heavily bombod citics (58 informants)		2 lightly bombed citics (17 informants)		
·	Yes	Not	Ya	No	
Loafing and loss of enthusiasm	30	7	[7]	1	
Poor quality of output	6	5	2	. 0	
Increasing accidents	<u>i</u>	13	- 2	· 5	
Poorer work discipline and co- operation	10	4	7	4	
Lower managerial efficiency	10	6	5	4	
Total	63	35	. 23		

• The heading "Yes" signifies a statement of presence in significant degree of the particular type of lessened productivity; "No" indicates a specific denial that the type of lessened productivity existed.

Sample excerpts, noted below, resemble closely those from informants in heavily bombed cities. The significant difference, however, is that when lessened productivity is reported in the lightly bombed cities, it is specifically related to the bombings which did occur.

Freiburg.—Productivity of workers was most seriously hurt by constant air raids and alarms. Losses in productivity due to raids were estimated at 30 percent and even higher by various concerns in 1943–44.

Faulty workinanship became more fre-, quent.

Luebeck.—Alarms caused a loss of sleep and fatigue; production was definitely reduced, probably by 20 percent.

The normal rate of accidents went up from one and a half to 4 percent after the big raid of August 1944.

Cross-Section Sample of Cities

Industrial representatives were asked to draw up memoranda in the cross-section sample cities. (See appendix A.) Reports were thus obtained on 19 major war plants in 17 cities. Informants were specifically asked to comment on productivity, entirely apart from losses resulting from absenteeism.

In only 4 of these 19 reports was it claimed that there was no noticeable decline in productivity. Two of these 4 reports came from lightly bombed cities (Wetzlar, Hallein); one from an unbombed city (Ludenscheid); and one from Frankfort-on-Main, heavily bombed.

Reports on the other 15 plants all refer to some degree of loss in productivity, commonly described as due to fatigue and nervousness. The

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estimates of loss of this kind range from 2 percent to 50 percent. Sample excerpts from these reports follow:

Ford plant, Cologne: .

A large increase in accidents, due to nervousness and fatigue, further lowered production by 10 to 15 percent.

Elektroacustic Worke, Neumuenster:

Production loss due to fatigue and nervousness is estimated at 12 percent in 1943, 20 percent in 1944 and 39 percent in 1945.

Henschel & Sohn, manufacturers of "Tiger" tanks, Kassel:

It is estimated that 5 to 10 percent of man hours were lost due to fatigue and nervousness, 3 to 5 percent due to intentional loafing; to this is to be added an increase of 5 percent in unsatisfactory goods, during the last few months of the war.

Krupp Works, Essen:

After insisting that his workers were loyal and had an excellent sense of duty, the personnel manager added: After heavy night attacks, when the workers had to labor under nervous strain, war weariness together with poor diet caused production to fall off considerably.

Ruhrstahlwerke, Witten:

Fatigue and nervousness had some influence on production, probably less than 5 percent. The nervousness on the part of women workers increased from December 12 until the end of the war.

Kloeckner-Humboldt-Dists, Ulm:

The separation of workers from their families had an adverse effect on their productivity. For the typical Swabian worker, life without his family (i. e., following evacuation of family members) is simply intolerable.

Almost exactly the same conclusions are drawn from data concerning 10 light industry (nonarmament) plants in seven cities, gathered in the same way as those described above. Since both the findings and the comments closely resemble those reported above, they are not included herewith.

Summary

Increasing losses in man hour productivity were reported in lightly bombed as well as in heavily bombed areas. The over-all production loss due to this factor was probably not less than 10 percent, the greater part of which is attributed by our informants to morale factors. For this, bombing was largely responsible.

Worker Opposition to the Nazi Regime.

Strong anti-Nazi attitudes were prevalent, apparently, among workers in all large German cities, particularly in the north, throughout the war. Outright sabotage, however, was rare. Among 58 interrogations of industrial representatives in five heavily bombed large cities, exactly half referred to more or less widespread worker antagonism to the regime, and only 3 denied this. Nine informants gave exactly the same picture of Luebeck, which was only lightly bombed, but only 1 of 8 informants in Freiburg, a southwestern city (also lightly bombed), claimed to know of any extensive anti-Nazi attitudes among workers.

All this is consistent with the interpretation suggested from many other sources of information; namely, that antagonism to the Nazis was stronger in heavily bombed cities, not originally nor primarily because of bombing, but because the large cities, where worker sentiment against the Nazis was already strong, were those selected as targets for heavy bombing. Where there were already anti-Nazi feelings, bombings served to increase them. Where there were not, resentment on account of bombings was less likely to be directed against the Nazis.

It is quite clear that oppositional activities, which occurred more often in the heavily bombed cities than in others, were the result of pre-existing antagonism to the Nazis rather than of bombing. Thus in the five heavily bombed cities, 13 of 58 informants specifically refer to active oppositional groups, 4 of 13 adding that these groups carried on sabotage during the war. Only 7 of these 58 informants assert that there were no active opposition groups. In Luebeck and Freiburg (lightly bombed) and in 9 other cities receiving various degrees of bombing (in each of which scattered interrogations were held) active opposition groups were rarely mentioned by informants. While this is not conclusive evidence for it's absence, it is doubtless an indication of the volume of oppositional activity.

As to outright sabotage, 4 of 58 informants in

the five large heavily bombed cities mentioned specific instances of which they knew, while 8 asserted that there was none in their cities. In the two lightly bombed cities, only 1 of 17 informants knew of any sabotage, while 4 of them asserted that it had not existed. In the miscellaneous group of nine cities (in each of which comparatively few interrogations were held) 4 informants mentioned incidents of sabotage, while 8 of them asserted that there was none in their cities.

The nature of such oppositional activity as existed among workers is illustrated in the following excerpts from interrogations of industrial representatives.

Hamburg.—The oppositional group was opposed to sabotage in its own plant, because it was a food factory. But "whenever the opportunity presented they sabotaged airplanes and nearby airfields, punched holes in gas tanks and threw sand in cylinders."

Workers wasted quantities of material, deliberately cutting U-boat parts to wrong designs, removing parts of torpedoes, etc. This sabotage was never traced.

Leaflets were distributed, especially after air raids. The middle classes became violently anti-Ally after raids and were driven closer to the Nazis, because victorious war^{*} was their only hope of recovering what they had lost. Workers became more anti-Nazi; and in proletarian circles it was easier for Communists to work after raids.

Hanover.—Dissatisfaction with the Nazi regime among workers was noticeable in 1943. It became very open and outspoken in 1944 and 1945.

Cologne.--In Cologne the workers became more anti-Nazi as the air attacks got heavier.

There was widespread "griping" but it did not result in any tangible form of sabotage.

Luebeck.—General morale deteriorated continuously during 1944 with the feeling of defeatism and bitterness against the Nazis for continuing the war. There was widespread disappointment at the failure of the July 20 coup. Women became increasingly outspoken and critical, and the workers laughed openly, among themselves after being harangued for 2 hours by a Nazi speaker attempting to spur them to greater efforts. Terror of the Gestapo prevented direct sabotage or oppositional activity.

Opposition groups thus existed among workers throughout the war in most of the industrial cities of Germany. Their activities consisted mainly of distributing leaflets, spreading "mouth propaganda," etc. A few of them seized occasional opportunities for outright sabotage. In the main, however, their methods of hindering war production were those of using various pretexts to stay away from work, arriving late, loafing on the job, etc. Bombing provided the best opportunities for such pretexts. Such attitudes on the part of workers account very largely for the greater absenteeism and lesser productivity in the heavily bombed cities.

The Nature and Causes of Decline in Industrial Morale

Many kinds of official documents, as well as a variety of informants, together present a picture of the manner in which lowered war morale affected industrial workers. Samples are herewith presented,

Official Morale Reports

These secret reports, though not written with the problem of industrial morale particularly in mind, nevertheless throw a good deal of light upon it. The following selections, taken from Krefeld reports, are representative of those from other areas:

The war damage offices pay out too much money, "frequently causing lack of labor discipline. Absences of several days with lame excuses are the result, particularly in the case of female workers" (31 Aug. 1943).

The fear propaganda does not lead to increased production, but rather makes people phlegmatic and apathetic. "The population becomes more and more serious because of the constant air alarms * * *. This begins to show more and more in the productivity and efficiency of labor" (6 Mar. 1943).

The bad morale begins to affect actual behavior more and more * * *. People consider the war lost; measures of total war are too late; V-weapons are too late, or else thought to be mere bluff. It is clear that such attitudes have an effect upon the industriousness of the whole population. The willingness to work suffers considerably (28 Aug. 1944).

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Files of Regional Economic Counselor

The following conclusions are drawn from monthly economic reports to the Party office in Munich. They deal principally with the then unbombed city of Wuerzburg and the already bombed city of Schweinfurt and cover the period 1941-43.

1. Women laborers caused trouble through absenteeism, taking hours off, increased sickness, sham or real. Sickness figures given in one instance are up to 25 percent of all workers.

2. Adolescents cause trouble through absenteeism, etc. One reason given is inadequate pay which does not per<u>mit</u> decent shelter and food. But there is also evidence of "gold-bricking" and an unwillingness to enter professions which do not promise easy money.

3. The reports on foreign labor are inconclusive in that the same group of laborers may be considered satisfactory or bad workers at different times. However, Russians are almost invariably described as inefficient because of insufficient food.

4. Foreign workers present the only case which makes it possible to link up the air war with labor morale. After the Schweinfurt raids prisoners of war who had contracted for labor in Schweinfurt, refused to renew their contracts (which, under the Geneva conventions, was legitimate), giving as their reason that they feared for their lives if they stayed in Schweinfurt. This had a disruptive effect on production. It may be surmised that it also had a bad effect on German workers who must have loved their lives as much but who could not quit.

5. Absenteeism was general in the Main-Franker region, though it has very little to do with the air war. Reasons given: work in the fields and no need for earning more money.

6. Sometimes workers quit one job illegally to take another job, presumably better paid, thus causing upsets in work plans.

7. There was evidently no enthusiasm for registering for total war and for the "total use of labor."

Files of Labor Trustee

The following summary is drawn from a series of reports to the labor trustee for the economic region of Bavaria, covering the period January 1941 to February 1945:

Women workers constituted the major problem of labor morale. Women always made up a large proportion of those who broke labor contracts and remained absent without authorization. Major reasons: they take time off to see their husbands home-on leave, or to visit husbands at Army stations; they don't need the money, since family allowances were often considered adequate. Women's labor morale declined somewhat as the war went on, but there is no evidence that this fact (reported before the region was bombed) is related to bombing.

Adolescent workers, next to women, caused the most labor trouble. Chief complaints were taking days off, tardiness and slowness of work. Principal reasons: dissatisfaction with wages, which were usually less than those paid to adults for equivalent work; sense of loss of freedom, due to stringent labor laws and to the lack of free time; feeling that the work was too hard; and placement in suitable jobs. Various types of punishment, such as "week-end arrest" and "youth arrest" were sometimes inflicted but in some instances could not be carried out-because of lack of jail space. Penalties seemed only to increase absenteeism. There is no observable relation between the labor morale of youth, and bombing.

Foreign isorkers were frequently guilty of absenteeism and tardiness. Reasons most commonly mentioned were: bad treatment by factory managers and peasants (the Labor Trustee complains that local police do not protect foreign workers adequately); broken promises about wages and living conditions in Germany; attempts to go home; and attempts (often successful) to change to a better job. Russians became more difficult to handle following the German retreats in the East. There is no directly observable relationship to bombing.

Labor Front Memoranda

These memoranda, written between November . 1941 and January 1945, are from the leader of the labor front, district of Bayreuth, to plant managers. The earlier ones contain little more than requests for cooperation, but the later ones sternly demand action and compliance with orders. Beyond the usual references to poor labor morale and concern over political influence of foreign workers upon Germans, these documents are of particular interest in revealing a jurisdictional dispute between two labor agencies in dealing with the problem of absenteeism.

In late 1944 managers were urged to report individuals guilty of absenteeism to the labor front, which "through education and enlightenment can, in by far the greater number of cases, make the German worker aware of his duty in wartime, without having him go to jail and thus be absent from work for a longer period" (October 1944). Until this period, the law had required that such offenders be turned over to the state labor office for punitive action, but the labor front (a party, not a state organization) won its fight in January 1945, evidently on the basis of its claim that 80 percent of the habitual absentees passing through its hands had returned to an exemplary life of labor, without actual punishment. The significant fact is that an elaborate system of propaganda, warnings and punishment failed to prevent a degree of absenteeism which was considered serious, and hence another system was superimposed upon it.

Interrogations of Industrial Informants

In addition to the factors noted above, industrial informants made it clear that bombing had a more immediate effect upon the will to work than did more general feelings of defeatism, because bombing effects were immediate and direct, demonstrating vividly the usclessness of performing work that was only doomed to destruction. Such excerpts as the following from the interrogations document the point:

Dortmund.—As the air war went on, there was less and less desire to rebuild, as it seemed to be without purpose or justification.

Kiel.—In late 1944 and 1945 the decline in morale due to air raids became serious. The feeling became widespread that there was no point in building things up, only to have them smashed again.

Wuppertul.—After the heavy attacks of May and June 1943, it was commonly said, "The war is lost. There is no use in working any more. The Nazis are to blame for the war; let them fight it." From the fall of 1944 there was only one idea among the people: " "it's no use; we can't stand it; we are being ruined."

Conclusion

At a minimum estimate absenteeism was increased by 15 percent of all scheduled hours, in all industries, over and above normal absentee rates, during the final 6 or 8 months of the war. Loss of hourly productivity on the part of workers reporting for duty was almost certainly greater than 10 percent, for all industries. Of this minimum total of 25 percent loss in productivity, a substantial but incalculable part was indirectly due to morale factors, as distinct from unavoidable absenteeism or sheer incapacity to produce more efficiently.

The effects of bombing: are inextricably fused with the effects of the steadily deteriorating war situation, in producing the lowered morale. But we feel safe in concluding; again, that a sizeable share of the total loss was due to bombing, because of its immediate and palpable effects.

The effects of bombing-lowered morale upon war production were not crucial for the German war effort. Nevertheless, depressed morale had a real effect upon war production. By the summer of 1944 the over-all military situation had led most Germans to abandon hopes of victory, and bombing rendered a defeatist population increasingly apathetic. Traditionally obedient and industrious, most Germans simply carried on in routine fashion; their very apathy made them more readily subject to official controls.

Thus, during the final months of war, a treadmill sort of war production was maintained. But the evidence is convincing that, during this period, there was little spontaneous, enthusiastic participation in the war effort. Bombing had much to do with the fact that German war production for a good many months had to depend upon routine and compulsory rather than active and wholehearted performance in war production. The latter kind of effort, which might have been possible without bombing, would not, in any case, have brought victory, but it would have resulted in a less rapid disintegration of the German war effort.

CHAPTER 3.—PROTECTION AND RELIEF FROM BOMBING

How adequate were the German countermeasures against air raids? Certain steps had been taken, in anticipation, by way of insurance against serious depression of morale by bombing. Other steps were taken after it became clear, from a steady stream of official reports, that morale was being seriously threatened as a result of air attacks. These measures helped to some, extent to sustain morale. Nevertheless, morale continued to fall, and in some instances expressed itself in actions causing considerable alarm to officials. Toward the last, some of the control measures themselves were breaking down. But the over-all picture indicates that counter-measures held up extremely well within the limits of what remained possible after the general disintegration of transport and supply.

Air-Raid Protection

ARP in Germany was not only older than the air war; it was older than the war itself. The open preparation for war by the Nazis, the ruthless advocation of the maxims of total war, and the cultivation of martial spirit in all the people were the grounds on which ARP measures were planted. The measures seemed adequate when Germany went to war.

They had to be supplemented when the Allies went over to the offensive in the air. It was a long way from Goering's guarantee that no enemy plane would fly over a German city to the complaints of delayed indemnification for claims on the basis of the war damages law.

History and Organization

The German Association for Air-Raid Protection was founded in 1933. Its purpose was to familiarize the Germans with air war and train them for defense. It was organized in state and local groups, had schools, research institutes, li-. braries and its own newspapers.

The Reich Institute for Air-Raid Protection put air-raid protection on a systematic, if not a scientific level. Separate organizations were created, as for instance an industrial ARP for the specific purpose of protecting production. The party was the main agency bearing responsibility for the planning and execution of all relief functions.

At the municipal level an ARP chief was installed, usually the police commissioner. Coordination between local, state, and federal agencies, as well as between different horizontal agencies such as chamber of commerce, labor front, National Socialist Welfare League, Red Cross, rent rationing office functioned more or less smoothly through committee arrangements. At the height of our air attacks internal difficulties developed, however. Thus, in Munich, the police commissioner and the local Party leader threatened to arrest the managing officials of the gas works because of some disagreement on manner and priority of repairs. Not infrequently friction appears to have arisen between participating party, administrative, and voluntary agencies in this critical period.

Success in Terms of Popular Confidence

At the outbreak of the war Germany had this excellent ARP system. The people were well aware of it and the absence of air raids, coupled with the quick success in the east, made air-raid protection seem superfluous. The state of the Germans at this time can be best illustrated by a quotation from a correspondence file from the president of the police of Augsburg:

People were indifferent to the air raid. The majority did not believe that an air alarm would be sounded during the day, let alone that an air attack would take place (21 Aug. 1941).

Adequacy of the Measures

As long as bombing was restricted to a moderate scale, the system of protection and relief proved reasonably satisfactory in most cities, but the heavy weight of bombs which was to fall on German cities was never foreseen. "When the raids increased to saturation proportions and were consistently recurring in every part of Germany, the burden of the civilian-defense system, as originally set up, was too great for it to bear efficiently." So concludes the report of the United States Strategic Bombing Survey, Civilian-Defense Division.

While the system was working with reasonable adequacy, it unquestionably had a beneficial effect upon popular morale. By the same token, when its inadequacies became evident, a certain amount

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of disillusionment occurred, with a consequent lowering of morale.

As to the system in general, the following answers were made by our cross-section sample to the question:

In your opinion, how well was your home town protected against air raids?

TABLE 69.—Adequacy of air-raid protection

· ·	Percent	
Everything possible was done	24	
Everything possible was done, within the limits of	,	
the situation	15	
Not adequate : more could have been done	29	
Very unsatisfactory	32	
Total	100	
ADEQUACY OF ACK-ACK		
Adequate	15	
Adequate in beginning only	34	
Inadequate	51	
· · ·		
` Total	100	

Thus, by considerable majorities, our respondents indicated their dissatisfaction with the system, particularly in the later stages of the war.

"Really safe public shelters were not available to the vast majority of people," according to the above-mentioned Strategic Bombing Survey Report: Small and medium-sized towns had few shelters. In some cities, e. g., Munich and Augsburg, shelter-building was "too little and too late." Occasionally bombs made direct penetrations of shelters, most notably in Cologne, where some 2,000 people were killed in the shelter.

Such incidents, together with the official policy of not publishing casualty figures, or occasionally publishing them only after a long interval, led to exaggerated rumors. First-hand observations of inadequacies in the system brought disillusionment to many.

And so there resulted, in varying degrees, infractions of established procedures, confusion, and lowered morale. Thus some people refused to go to the shelters to which they were assigned, or refused to go at all, because of rumors concerning their relative safety. Nazi officials took over the safest and most comfortable shelters in at least one established instance (Muenster), setting up permanent office space inside; similar allegations were given wide credence elsewhere. Shelters came to be centers of spreading infections and were feared as such. Perhaps worst of all,

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from the point of view of German officials, gatherings in public shelters offered opportunities for passing on rumors and spreading disaffection toward the Nazis when people were in the most receptive mood for listening. These and other consequences of shelter life concerned the Nazi authorities not only because of their immediately upsetting effect, but also because common knowledge of them served to lower morale still further.

Respondents in our cross-section sample, on being asked to comment on the adequacy of air-raid protection in their home towns, replied as follows concerning shelters:

TABLE 70.—Adequacy of shelters

	1	creent
Satisfied wit	h shelters and shelter system	35
Dissatisfied	•••••••••••••••••••••••••••••••••••••••	65
Total		100

These replies, made in June and July 1945, are obviously a final judgment representing the later period in which shelters were least adequate.

It should be remembered, however, that although the German shelter system left much to be desired from the point of view of absolute safety, German shelters were superior to those of other countries. In relation to total weight of bombs dropped on German cities, German casualties were low, and comparatively lower than British casualties.

Post-raid Relief

Nazi officials were fully aware of the importance of adequate post-raid relief for keeping up morale. In Cologne, for example, a "secret" report by a local official recounts the granting of what was recognized as a preposterous claim for bomb damage. The official felt it wiser to spend the money than to alienate the applicant. That the post-raid services were widely appreciated is indicated by replies of our civilian sample to the question:

How good were the special measures and welfare services after the raids? Was everything possible done?

More than half (58 percent) expressed clear satisfaction, feeling that everything possible was done; only 17 percent replied unequivocally that the services were unsatisfactory; and the remaining 25 percent gave various kinds of qualified answers.

Food Supplies

According to informants in most cities, food supplies were usually prompt in reaching the bombed-out people who needed them and were in general adequate, until the problems of transportation became too great.

General satisfaction with this aspect of postraid services is indicated by our respondents in the reasons given for their satisfaction or dissatisfaction with post-raid services. By far the most frequent reason (52 percent) for a sense of adequacy was that people were fed or given extra rations after air attacks. Only 19 percent, on the other hand, mentioned the insufficiency of food as a reason for judging the services inadequate.

Housing and Billeting

This was a much more difficult problem than food. Official morale reports very often mention "shocking" conditions of crowding and exposure due to shortage of housing space. Perhaps the most telling evidence as to this critical situation is to be found in the numbers of bombed-out individuals who took up continued residence in the shelters. Among the 24 of our sample cities in which evidence was secured on this point, only eight reported that no one lived in shelters and only one of those was a large and heavily bombed city. Thus, according to our informants, in Essen "countless thousands" took refuge in shelters; in Bottrop 60 percent of the population did so, in Kassel 21 percent, and in Muenchen-Gladbach 20 percent, while in Dortmund, Hannover, and Witten "a few" or a "very few" did so. In many cities the practice was forbidden, or permitted only to the aged, mothers with children, etc. Taking up residence in a shelter was occasionally the result of anxiety concerning future raids, but the homeless made up the great majority of those residents. In most cities only the homeless, together with the aged and others especially helpless, were permitted to live in shelters.

•Th spite of the acute housing shortage, or perhaps because the shortage was so painfully obvious, there was little dissatisfaction on this score among our respondents. Twenty-three percent of those who considered post-raid services adequate mentioned the billeting and evacuation of bombedout people as a reason for such a judgment. Only two percent mentioned poor housing as the reason for judging the services inudequate. In short, while the experience of being bombed-out caused suffering and agony to millions, very few of them judged the post-raid services inadequate for this reason.

There was apparently a fairly general sense of adequacy regarding post-raid billeting. Those of our respondents who were forced to move (i. e., supplied new quarters in the same town) were specifically quizzed on this point. New quarters were reported as satisfactory by 56 percent, unsatisfactory by 44 percent. In view of the known conditions of crowding, this must be interpreted as a very tolerant response. This very tolerance testifies to the widespread belief that all was being done that could be done.

Financial Compensation

An official policy for damaged and lost property was introduced with the very beginning of bombing. It was, in general, a generous policy, and we have almost no evidence of dissatisfaction on this score. In fact, complaints were much more common to the effect that payments were too generous. Employers, in particular, complained that some who had been reimbursed for bomb damage refused to work because they did not need the money.

Respondents in the sample were queried as to the receipt of indemnity for lost or damaged property. The replies of those who had suffered any such losses appear in table 71. Perhaps the most significant finding in this table is that large numbers of people entered no claim. Among these who did make claims, over half received some indemnity for damage to personal property (exclusive of homes) or to income producing property. Among those who received some indemnity, in most cases less than half of the claim was allowed. It is not known whether it was a common practice to enter swollen claims on the assumption that only partial allowances would be made.

TABLE 71.—Extent	of indemnity received for bo	mb
	damage 1.	

	Liome	Liome Personal property			
•	Percent	Percent	Percent		
No indemnity claimed	39 İ	34	54		
Indemnity claimed:	1				
Not received	35	21	20		
Received less than half	15	33	18		
Received more than half	11	12	8		
Total	100	100	100		

"Responses of those suffering loss.

Only in the case of indemnity for casualties (death or injury) were respondents asked about the adequacy of the payments. Their answers were as follows:

TABLE 72 - Adequacy of indomnity for casuallies

	Parcent
No indemnity claimed	7.1
Claimed, but not received	12
Received, but inadequate	7
Received and adequate	10.
Total	1.00

Obviously, the number of Germans who felt dissatisfied about this aspect of indemnification policy was not very great.

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Medical Treatment

Another of the post-raid services offered was medical treatment to the injured. Those of our respondents who had received injuries from air raids expressed the following attitudes toward medical treatment:

TABLE 78.—Adequacy of medical treatment

•	Percent
No treatment sought	. 29
Treatment adequate	
Treatment inadequate	. 11
Total	. 100

Assuming that the most common reason for not seeking treatment was that injuries were slight, almost six-sevenths of the injured who received medical treatment considered it satisfactory.

Protection and Relief by Evacuation¹ Official Awareness of the Morale Problem

The Nazi Party considered evacuation to be one of its most crucial problems, and to be of decisive importance in relation to the morale of the civilian population.

The care of bombed-out persons and evacuees is one of the most important tasks of our time. When millions of people live together with strangers, in closest quarters, countless phychological problems arise which we must master if they are not to become the roots and sources of negative conduct. (circular letter from the Propaganda Ministry to all regional party chiefs, 19 Aug. 1943).

See ch. 5, Pt. II for further discussion of evacuation.

The Party believed that the manner in which evacuation problems were met would influence the loyalty of the people. It hoped that such measures would intensify the feeling of dependency on the Nazi regime.

The bombed out and evacuees must feel that in addition to agencies in the region, Party agencies on a Reich-wide basis are concerned with them. The recent news of the arrival of special deputies in various regions spread like wild-tire, and alleviated the feeling of being forsaken which was developing here and there among evacuees. (circular letter from the Propaganda Ministry to all regional party chiefs, 19 Aug. 1943).

The Party believed that a uniform and consistent procedure was essential, and an elaborate plan was set up to this end. From April to October 1943, a long series of directives was sent from Berlin, by the National Socialist Welfare Organization, the Ministry of the Interior, the Ministry * of Transport, and the Party Chancellory (signed by Bormann), in an attempt to standardize evacuation procedure. Many of these directives explicitly called attention to the vital importance of evacuation problems, and to the necessity for an efficient, effective and not too bureaucratic handling of the many difficulties which inevitably attended the movement of large numbers of people. Many compromises were admitted in plans and procedures from mid-1943 on, due to great concern over the morale effects of evacuation. Coercive measures were used very cautiously.

So great was this concern that the Party developed a definite morale policy on evacuation problems. A Party headquarters directive signed by Bormann, 27 August 1943, states that evacuees need constant care and attention, particularly while en route. A directive from Munich, 13 August 1943, states that all efforts must be exerted to effect the transportation of evacuees as calmly as possible. Many of the directives deal with the morale aspects of proper housing facilities, proper rationing and distribution of food, and the necessity for constant attention to the welfare and cultural needs of evacuees.

An intensive propaganda campaign was initiated during the summer of 1943, to prepare people and thus to minimize frustrations and maintain morale in the face of the greatly increased evacuation of this period. Notices were prepared both for evacuees and for hosts, carefully describing the behavior expected of them. But the Party foresaw the gap which would inevitably develop between expected and actual behavior, and kept all its own officials, as well as Hitler Youth personnel, on the alert for friction, tension or refusal to cooperate with the program.

Thus the Nazis used much time, effort and equipment in an attempt to solve evacuation problems, and to prevent an adverse effect on morale.

The System—Its Extent and its Difficulties

Evacuation was a crucial problem in that it contained many sources of possible confusion and loss of control. There was an attempt to set up an integrated and controlled-movement of population by establishing a system of sending and reception regions, and by designating the types of persons to be evacuated. From the first, however, people were also urged to make their own arrangements with friends and relatives wherever possible. A fully "coordinated flexibility" was desired, but never achieved. Sources of confusion included the problem of keeping families together, arrangements for making return journeys, the attempt to insulate persons or places from the effects of evacuation or to preserve class distinctions, setting up a system of payments to evacuees and hosts, and administrative conflicts between agencies carrying out "the evacuation program.

At least 5 million persons, and probably more, were evacuated during the course of the war. At least four-fifths of all evacuations occurred in the period from June 1943 to the end. Confusion developed during the summer of 1943, and it became necessary to improvise on the original plan. By the fall of 1943 a major modification had been introduced. People were to be evacuated into nearby areas within their own region, as far as possible, but this arrangement brought further difficulties. Much confusion existed throughout 1944. As a typical example, the monthly report of the National Socialist Welfare chief of Sonthofen to regional headquarters of the Schwaben region, May 1944, complains about lack of clear procedure on evacuation, as a result of which many people arrived without permits and without arrangements for quarters.

Many are sent away, and they can't understand why. Often they are in no condition to go further. The whole situation has a depressing effect on the mood of the evacuees, who are sent aimlessly about frompillar to post. Other regions must stop the lax procedure of telling people "just go wherever there is a place." The Berlin, Dortmund, Hamburg, and Cologne-Aachen regions are especially lax in this respect.

The fall of 1943 was the crucial turning point toward a serious housing shortage, and an inadequate distribution of supplies to evacuees. By late 1944, what had begun as mere complaints, stemming from minor frustrations, had developed into a state of confusion and serious physical need for a part of the population. The period from late 1943 on was also characterized by the fact that many of the areas designated as reception regions were themselves heavily bombed.

During the last months of the war the confusion was greatly intensified by the large numbers of refugees from the Eastern and Western fronts. The number who fled from the Russian advance was greater than the number of evacuees from "air terror" during the entire course of the war. This evacuation was a planless chaos which made the "air terror" evacuation appear orderly by contrast.

In spite of accumulating confusion and final break-down of the evacuation program, it must be emphasized that had there been no program, as was the case in Freiburg, confusion and demoralization of the civilian population would have been much greater than they were.

Morale Effects: Official German Reports

Evacuees were almost invariably described in official morale reports as having a depressed mood. Complaints were the typical form of expression of this mood. Evacuees constantly complained about the inadequacy of facilities furnished them. Until the summer of 1943 the complaints were little more than a release for general frustration caused by the disruption of normal routines and sentiments. Beginning in June 1943 the complaints became more serious. and actual shortages were sometimes acute. This situation was further complicated by the fact that evacuees often received sizeable payments for damages, and then found there was nothing for which the money could be spent. Inflated expectations were thereby disappointed. '

Throughout the entire period evacuees had difficulties of adjustment in their new locations. Both rural-urban and regional differences were involved. By the end of 1943 and the beginning of 1944, when the pattern of sending and reception regions was disrupted and there were evacuees from within the reception regions themselves, the problem was aggravated because there were conflicts not only between evacuees and hosts, but also between evacuees of different backgrounds. Old North-South conflicts frequently flared up.

The morale of remaining members of evacuees' families was a particularly serious problem for the party, and there is evidence that both mood and behavior were adversely affected in this way. Desire of family members to be reunited was a major factor in the unauthorized return of evacuees. For example, in Dortmund, in September 1943, such returns were increasing at an alarming rate because of the desire to lead a normal family life. Workers claimed that their willingness to work would be impaired unless members of their families were permitted to return. The Party considered such returns to be most undesirable and disruptive to the entire ARP program. Yet, the countermeasure taken against them provoked a storm of resistance, the effects of which were spread right to the front lines. The problem of family separation thus created a serious dilema in the evacuation program.

The mood of hosts often became bad and depressed with the influx of evacuees into a reception area. The many social differences between evacuees and hosts created friction and conflict.

Evacuation made persons in reception areas aware of the air war, and acted as a major carrier of anxiety. This process of transmitting low morale became very pronounced in reception areas during the summer of 1943. A morale report of the administrative head of the Main Franconian district (Wuerzburg, 11 Aug. 1943) is typical:

Morale has been much influenced by evacuees from Hamburg who have found places to stay in this area, and who recount their experiences. Eye witnesses tell of a half million dead. They also say that the government is not doing enough for the security of the population. They say it is impossible to stay in one's house during a raid like that, or one would be blown to bits, and if one ventures out on the street he runs into the phosphorous bombs that come down like a rain of fire. They say our countermeasures are inadequate. Thus our people, in this area, are being given the impression that they are powerless against the Anglo-American bombing attacks.

The same pattern continued and was intensified in the rural areas of reception regions when cities in these areas were bombed. The anxiety thus generated created a strong desire for retaliation, which in turn was frustrated.

Thus, evacuation acted as a morale depressant. Yet, again it must be stressed that, without evacuation, serious demoralization probably would have occurred much sooner than it did.

Morale Effects: First-Hand Testimony

Information supplied in the cross-sectional study shows less dissatisfaction than is indicated in the official intelligence reports. It is probable that the cross-sectional survey minimizes the degree of discontent, since respondents interviewed in June and July of 1945 might be less concerned over old problems than they were during the war. The official German intelligence reports may give an inflated picture of the extent of evacuation difficulties in that the writers of these reports obtained their material from the articulate complaints. Most of the respondents felt, in June and July of 1945, that the advantages of evacuation had outweighed its disadvantages.

Detailed questions were asked of all respondents who had been evacuated, whose families had been evacuated, or who had received evacuees. Responses of the first two groups are summarized in table 74.

These replies show that both evacuees and members of their families left behind were, in the main, satisfied with their billets. Most of them left because they wanted to and felt that they adapted reasonably well to their new surroundings. The principal reasons given for lack of adaptation was that they were homesick, and that family separation was difficult. The main reasons offered for having gotten along well were that townspeople or housemates were congenial, and that it was reassuring to know that their children were safe or were not in a Nazi camp. TABLE 74.—Responses concerning evacuation

	Percent of evacuees	Percent of those whose families were ovacuated
Billet satisfaction:		
Satisfactory -	72	81
Partially satisfactory	12	9
Unsetisfactory	16	01 -
Toisl	100	100
Reason for evacuating:		
Compulsory	.18	23
Voluntary (home damaged or destroyed)	24	5
Voluntary (other reasons)	53	68
No relevant information	3	0
T'otal	100	100
Adequacy of adaptation:	•	
Adapted very well.	51	59
Adapted with difficulty	31	27
Got along badly		11
Couldn't adapt: returned	2	5
Total	100	100

Hosts' replies concerning their experiences with evacuees were thoroughly consistent with those reported above, as shown in table 75. Here again we find evidence of considerable tolerance. A full third of the hosts report that they "only tolerated" or "actively-disliked" the evacuees, yet only one-ninth of them render an over-all judgment that the experience worked ont badly.

An analysis of reasons given for satisfaction or dissatisfaction with evacuation throws some light on how the system worked. Two specific reasons were given by those who reported a satisfactory experience: the evacuees were friends or relatives; or they stayed so briefly that there was no time for friction to develop. A wider TABLE 75.—Replies by hosts concerning evacuation

· · · · · · · · · · · · · · · · · · ·	Percent of "bosts"
Satisfactoriness of experience:	
Worked out very well	71
Worked out fairly well:	19
Worked out badly] 11
Total.	100
Attitude toward avacuees:	
Liked and accepted them	. 40
Liked some, disliked others.	1.
Tolerated them	12
Disliked and rejected them	. 20
No attitude expressed	. · · u
Total	100

variety of reasons was offered by those who found the experience partially or totally unsatisfactory (most of whom, presumably, were entertaining neither friends nor relatives nor shorttime guests). Evacuees failed to do their share of work, were too critical or arrogant, aroused old regional antagonisms ("Prussians" were particularly disliked in most southern evacuation areas), created food shortages and overcrowded living conditions.

The frequency or replies that evacuees got along very well because they were friends or relatives testifies to the wisdom of the official policy of letting evacuees and hosts make their own arrangements. All in all, the evidence from the study of civilian opinions confirms our earlier judgment that the evacuation plan was necessary and helped morale more than it injured it, despite the creaking and groaning of the system while the Nazi regime was approaching its end.

CHAPTER 4.—ATTEMPTS TO MAINTAIN MORALE BY PROPAGANDA

Propaganda, together with terror, kept an habitually obedient and industrious people treading the mill. But it was a propaganda which depended upon two pillars, military success, and the elimination of conflicting sources of information. Strategic bombing did much to topple both of these pillars, first, by playing a prominent role in German military reversals and, second by bringing home to millions of Germans the tangible proof of Allied might, indisputable proof completely out of harmony with the familiar Nazi propaganda. Towards the end, German civilians seem to have sorted out the factual wheat from the propaganda chaff more adequately than did their presumably betterinformed officials.

Nazi propaganda, so useful, so necessary and so effective for so long a time, boomeranged in the end. The implications of this fact for the future orientation of the German people may be enormous.

Types of Propaganda

German officialdom, in its struggle to maintain morale, faced a duel task: the negative one of preventing morale-depressing activities or expressions, and the much more difficult affirmative task of providing actual stimulants to morale. Terror and censorship were the chief instruments of the negative policy.

The affirmative policy rested upon action measures, including the social welfare program of the Party and a wide variety of propaganda methods. The thorough control of propaganda extended to:

Press and radio, carefully directed and coordinated both by censorship and by a steady stream of directives.

Films, including a large sprinkling of news-reels, documentaries and battle-action pictures.

Public addresses, requoted in press, radio, and movies.

Rallies and parades, staged mainly under Party auspices.

A network of "mouth propaganda" agents, to whom directives were regularly issued concerning slogans to be circulated, rumors to be combated, etc. A generous and highly advertised program of relief and compensation for bomb damage.

Regardess of the medium used for propaganda, the content varied little. In addition to the standard prewar lines of Hitler's greatness and infallibility, the Bolshevik menace, and the Jews, the following themes appeared almost continually throughout the war:

Past and current successes were exploited, and future ones were promised.

The enemy was vilified, toward the end of arousing popular hatred.

• A split among the Allies was presented as inevitable, if not imminent.

The consequences of defeat were luridly painted.

The sufferings and losses of the enemy were maximized.

The heroism of Germans, both individually and collectively, was glorified.

The contributions of the Party to German welfare were kept in the fore-front of every German's attention.¹

Such were the major themes of German war propaganda, and for every one of them a relationship to some aspect of air warfare was developed. An analysis of how these themes were manipulated provides a clue to the principal morale worries of German officials. Evidence as to how the propaganda was received by the German populace provides a step-by-step account of how bombing finally served to undermine much of what the Propaganda Ministry had built up. Throughout the greater part of the war period, however, propaganda accomplished its purpose with a clear margin of success.

Official Worries

Soon after heavy air raids began, regional Party leaders in the affected regions began to report that morale was being seriously affected by bombing. They recommended that official notice be taken of air attacks, by including references to them in the High Command Communiques. The suggestion was accepted. Regional Party headquarters were instructed (10 July 1942) to send reports to the Propaganda Ministry not later than

¹ This list of themes is based upon a study of domestic press and radio materials throughout the period 1939-45.

10 o'clock of the morning following each raid, including information on the state of local morale. The Propaganda Ministry forwarded these reports to the High Command so that they could be taken into consideration by the editors of the communique. The very necessity of developing this policy testifies to the degree of official concern over the effects of bombing upon morale.

Attempts to Combat Feelings of Helplessness and Passiveness

The earliest available directive concerning the treatment of air raids is dated July 1941. The main concern is obviously that of countering the morale-damaging effects of air raids, and in particular the general attitude on the part of civilians that their role is merely a passive one. The points stressed in this directive to the press_are:

1. Reports must emphasize the effectiveness of German anti-aircraft defense.

2. Positive features, such as energetic activity of individuals in extinguishing incendiary bombs, are to be stressed, as contrasted with negative impressions.

3. In such cases, the names of persons involved are to be mentioned; this is to show that the suffering experienced from air raids is as great as that at the battle fronts, and their efforts equally important.

Two years later (9 April 1943) a similar directive was issued by the Party Chancellory:

Reports of air raids, particularly of heavy ones, are to stress not the damage and devastation inflicted but the brave demeanor of the people and auxiliary forces employed. Speakers, too, must be instructed that when dealing with the subject in public meetings they must emphasize the positive aspect, i. e., the bearing of the people.

"Positive features" were stressed primarily in the form of heroic resistance. Local propaganda offices were requested to describe heroic incidents in their air-raid reports, and special efforts were made to record such accounts for later broadcasting. And so millions of Germans who thought of themselves as passive victims of bombing, past or future, found themselves described as soldiers of the home front. Obituaries of air-raid victims were decorated with the Iron Cross, and some of those who survived were awarded the War Merit Cross. Hans Fritzsche was one of the propagandists particularly assigned to this campaign. At a public mass funeral in Schweinfurt (15 Oct. 1944) he referred to the victims:

They too died so that the great German community might live.

In an earlier radio address he had extolled:

Those millions in the bombed areas, the great heroes of this war who wear the invisible oakleaf and before whom entire generations of Europe will sometime bow (31 July 1943).

Hitler went even further. In an order of the day (18 Apr. 1945) addressed to the soldiers of the Eastern front, he held up civilians as models to the troops whom must not be ashaned to face "women and children who hold out in the bombterror of our cities."

Eventually, the propagandists ventured to contend that bombing stiffened morale. In December 1943 in the face of heavy air raids over Berlinand other urban centers, Dr. Goebbels wrote in an article entitled, "The Soap Bubble¹²:

Whether the enemy believes it or not, it is evident that our people face the war and its cruel consequences with an equanimity and a stoutness of heart which deserves more than admiration * * *. As we have to move more closely together physically in the cities under the enemy's aerial warfare, so also spiritually * * *. Out of the fires which flame up after terror raids in the residential quarters of raided cities there arises an unconquerable national strength * * *. The hammer blows of fate hit us hard but they meet only iron which is hardened, and not softened, by blows.

In the same issue of his weekly a staff writer's account of shelter-life in Berlin concludes:

In these exhausted people you find not much flaming hitred, as the growth of something much more dangerous and vital. A life, which has been injured in its innermost core, becomes hard and forever inflexible in such hours.

Security service morale reports of this period suggest a good deal of popular skepticism concerning such preachings.

² Das Reich, (12 Dec. 1943). This was Goebbels' official weekly.

Sense of Shared Guilt for Air Raids

It is known, from several sources, that many Germans felt that their own country bore its full measure of responsibility for attacks upon civilians. A directive from the Party Chancellory (7 July 1942) reflects this concern:

The concept of "terror raid" is intended to reflect the criminal behavior of the enemy * * * therefore a German attack must never be called "terror raid." Counter-measures of the German Air Force are to be designated as "retaliation measures."

The same directive goes on to insist that, "It is historically proved that the RAF was the first to make raids on nonmilitary targets." A book entitled "England's Sole Guilt," published in July 1943, gave the documentary "proof" for the allegation. Repeatedly, however, the propagandists had to answer the inevitable questions as to who bombed Warsaw and Rotterdam.

German officials were convinced that the Catholic clergy were particularly responsible for spreading the notion of shared guilt. In an official morale report from Dortmund (27 Apr. 1942) a Catholic priest is reported to have said in a meeting of clergymen that the German bombing of York was an outrage. He pointed out that, like other British Baedeker cities, it was not only a cultural monument belonging to the world, but was unfortified. On the other hand, everyone knew that cities like Hamburg, Luebeck, Rostock, and Cologne had military importance which justified their being bombed by the British.

A more specific form of religious support for the assumption of shared guilt was that bombing represented divine retribution for the sins of the Nazi regime. Several of our informants pointed this out. For example, a Protestant Confessional Church official in Wuppertal said:

With the members of our churches the religious interpretation was foremost. Many also realized that the German people, through the National Socialist government and the criminal deeds of the Elite Guards, had loaded upon themselves a tremendous collective guilt.

According to other local informants, many religious people saw a connection between the burning of the Christian churches during air raids and the burning of Jewish synagogues in 1938 by the Nazis. On seeing endless caravans of bombed-out evacuees, others were reminded of the many Jews they had seen in earlier years being herded along the roads to concentration camps.

Religious opposition was never quelled under the Nazis because it could not be openly attacked, and constituted a continuing problem for the propagandists.

One of the major purposes of the terror theme in German air-war propaganda was to counteract the too-prevalent assumption that, after all, Germans also had bombed civilians. The twin themes of barbarism (Anglo-American preference for destroying cultural monuments) and terrorism (Anglo-American habits of attacking "almost exclusively" civilians) together made up a very large part of air-war propaganda. During the week of 20-26 June 1943, for example, no less than 15 percent of all time devoted to news and commentary on the domestic radio was given to these topics. In the same week, 13 percent of the entire space in a representative sample of German newspapers was taken up by these same subjects; all other aspects of the air war occupied only 2 percent of the total space during this week.

Closely related to the terror propaganda was the hate theme. Local officials, in secret reports, occasionally reported that, understandably enough, "unlimited rage" was expressed by the victims of bombing. Nevertheless, the propagandists did not feel safe in relying on popular hatred as a natural result of bombing, but took care to stir it up again and again. Thus a letter from the Regional Press Office, Cologne-Aachen, to the editor of the Koelnische Zeitung (3 Mar. 1943) criticized a drafted article because there was "too little emphasis on a feeling of revenge, or hatred, or even mere anger." This hate campaign culminated in an article by Goebbels himself in the Voelkischer Beobachter (26 May 1944) in which he claimed that captured pilots had to be protected by armed police lest they be killed by the enraged people. This protection would no longer be given, he then suggested, thus implicitly inciting Germans to lynch captured Allied fliers.

Fear of German Impotence in the Air

German officials had ample reason to be concerned about popular discouragement as to Germany's air strength. Regular reports of widespread disillusionment on this score reached them.

based particularly on the absence of air resistance to the bombers. Their best propaganda weapons were directed against such deepening disillusionment. In particular, retaliation and V-weapons were stressed, together with losses of Allied aircraft, and untruthfulness of Allied propaganda.

Popular demand for retaliation was inevitable. Until October 1942, the explanation for its delay was that the German Air Force was busy in Russia. Thus, Goebbels declared in *Das Reich* (14 Aug. 1942):

The decision in this war will be made on the eastern battlefield * * *. It would naturally be quite possible to divert a few thousand planes from the front for such massive reprisal raids on Britain that the RAF would soon lose all desire to terrorize German towns in vicious night attacks * * *. We are beating England in the east.

In the same vein, the *Frankfurter Zeitung* comforted the harassed population of the western cities (17 Aug. 1942):

Once the bulk of the German Air Force is no longer employed on the Eastern front, things beyond their wildest imagination will happen to the British. They will then learn what the German Air Force really is. Their whole island will become one vast conflagration. The raids of 1940 will be child's play compared with the wrath to come.

As the prospects for a quick victory in Russia vanished, the line was changed, promises became both vague and less frequent. Directives to all propaganda offices (22 Mar. 1944) ordered that whenever air raids against England were carried out, they should be heavily played.

Meanwhile "secret weapon" propaganda was beginning to increase. Rumors had been allowed to spread since the summer of 1943. The official launching of the campaign on 8 June 1944 met with great popular response. But by August of that year the nonfulfillment of early hopes had caused such disappointment that Himmler strictly forbade all propaganda concerning secret weapons, except V-1. From June to August, V-1 propaganda made up a good half of all air war propaganda, declining gradually until in November, V-2 propaganda displaced it, assuming about the same proportions for some months thereafter. During most of this period the German High Command communiques regularly reported V-2 activity, sometimes with emphasis equal to that \cdot given to either the Eastern or the Western fronts.

Another method of allaying popular suspicions of Germany's relative air weakness was that of publicizing Allied air losses. Repeatedly Germans heard and read that their defense forces were exacting a prohibitive toll; the day would come when air raids would have to be stopped. Goebbels christened the Flying Fortresses, "Flying Coffins" (3 Oct. 1943). Allied announcements of their own air losses were ridiculed. All Reich propaganda offices were ordered to play up to the untruthfulness of American propaganda (9 Mar. 1944):

The fantastic American figures are to be played as new proof of the unreliability of American news reports * * *. Why do they report so much greater successes than the English? Have they better pilots or are they better liars?

An untold number of Germans, in short, had come to believe that air strength would be the deciding factor in the war. Disbelief in German air strength had thus become equivalent to defeatism, which gradually became propaganda problem number one.

Discrediting of the Party

As confidence in German ability to ward off airattacks waned. Nazi officials found themselves the victims of their own long-established policy of presenting the Party as the guardian and guarantor of community welfare. To the party went the particular responsibility of "taking care of the victims," by establishing reception centers, providing food, caring for the wounded and sick, and handling evacuation problems in general. Many party-affiliated organizations were involved, such as Hitler Youth, Women's League, Girls League, the Storm Troopers; and the National Socialist Welfare Agency, and the Party was careful to take credit for their activities. By the same token, blame was popularly assigned to the Party when services were inadequate. It thus became a major propaganda task to meet these criticisms.

As early as 18 October 1942, Goebbels found it necessary, in a public speech, to castigate certain critics in Munich who were "always against the Party." In broadcast of 2 July 1943, Goebbels tried to meet the continuing grumbling and to defend the Party leaders: People have experienced during the nights, of fire and sorrow what the Party means to them. The "Little Hitlers," often wrongly criticized or ridiculed, have stood the test again. Without them one could simply not do.

Martin Bormann, who as chief of the Party Chancellory had reason to be vitally concerned, reveals how critical the situation of the Party was in January 1943:

* * The Party has the duty of leading the broad masses with strongest activity and untiring readiness * * * of helping them in every respect * * * and of marching ahead in unshakable optimism * * *. As prior to coming to power, we are waging a most severe battle; our old adversaries have reunited and old tricks are being played against us. The Fuehrer expects the Party to employ the spirit and the methods of our fighting period before 1933, not to limit itself to administration and government, but to lead.

To most Germans, of course, the Party was indistinguishable from the regime. Since war morale necessarily depends upon confidence in the regime responsible for the conduct of the war, German[•] officialdom had cause for serious concern over these popular criticisms.

"Black listening" (listening to Allied broadcasts) constitutes a pretty good index of dissatisfaction with official German news sources: At least half of all German adults listened, as indicated in answers given by civilians to the question,

Did you ever listen to Allied broadcasts? If so, when did you begin to listen?

TABLE 76	.—Extent	of	black	listénísig	
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	Parcent
Began in 1939 or before	. 17
Began as the war progressed	. 30
Time unspecified	
No radio, hence no listening	. 11
.DId not listen (no reason given)	. 38
· · · · · ·	<u> </u>
Total	. 100

The number of new listeners increased steadily as the war progressed, from 3 to 4 percent a year in 1940 and 1941, to 8 percent in 1944, and 1 percent a month in 1945. Answers to two other questions by the same respondents confirm this skepticism with regard to German news:

Did the newspapers and the radio correctly describe the general state of mind in the city after each raid?

TABLE 17.—Reliability of German information

			rercent.
German information r	eliable		 21
Sometimes reliable, so	metimes r	10t	 16
Completely unreliable	` 		 54
No answer obtained .			 9
-	-		<u> </u>
Total			100

What did you think of V-weapons when they were first used? (ratings of initial belief in effectiveness).

Percant

TABLE 78.—Confidence in V-weapons

Complete rejection (swindle, fake, etc.)	23
Limited belief in effectiveness	43
Belief in effectiveness	30
Didn't know they existed	1
No answer obtained	3
· · · · · · · · · · · · · · · · · · ·	
Total	100 -

These replies indicate that a good half of German civilians accepted propaganda with a great deal of skepticism even when proclaimed as noisily as were the V-weapon claims. It must be repeated, however, that this degree of suspicion did not exist throughout the entire war. These figures must, in fact, be considered as representative only of the last few months. For many of our respondents, disillusionment came only after surrender. "Belogen and betrogen" (lied to and betrayed), the phrase originally used by Hindenburg after discovering the deception practiced in high German circles in 1918, was a common phrase upon their lips, as they came to realize belatedly how they have been victimized by the Nazis.

Top-Level Belief in Propaganda

German officials at or near the Ministerial level were not always realistic in their assessment of Nazi propaganda. This was true in two senses. To a considerable degree they were taken in by it themselves, and most of them exaggerated the degree to which it was popularly accepted.

Some of the top-level prisoners who were interrogated were quizzed at this point. A considerable number revealed their own gullibility. Some of them, no doubt, sought by such answers to escape responsibility for their official acts, but others must have been equally anxious to demonstrate their own astuteness. Sample replies follow:

Elite Guard General Petrie:

Propaganda was everything. We had to depend on it, and we took it as fact when we saw it printed.

Franz Hofer, regional Party leader of the Austrian Tyrol:

We believed in what the propaganda told us. It worked on us rather than on you. You never believed it, though it was intended to let you know how strong we were. Instead, we believed it.

Lieutenant General Huebner:

Our propaganda concerning victory was so positive right up to the very end * * *. Even we had to get our information from them. We believed they must have known something, else they wouldn't have made such statements.

An official of the Propaganda Ministry:

I, as well as most of other officials at the Propaganda Ministry, firmly believed in victory until the Americans broke through beyond Frankfort * * *. We were under the impression that the armed forces had the necessary reserves to win the war.

According to these and other similar statements, propaganda officials believed that the Army had an ace up its sleeve. Meanwhile, Army officials were assuming that, unknown to them, special and important information of a top-secret nature was being confided to the Propaganda Ministry. There is a good deal of corroborative evidence to the effect that each of the several military branches and Government offices was effectively sealed off from the others, as far as exchange of certain kinds of information was concerned, and that many top-side officials would listen only to what they wanted to believe. In more than one case (e. g., Emmanuel Schaeffer, of the Propaganda Ministry) officials were dismissed for expressing skepticism about the accuracy of propaganda. Those who stayed on were largely believers.

Some high officials, who were interrogated, claimed to have seen through the propaganda. Thus von Eberstein, Elite Guard general of the police in Munich, stated that in spite of propaganda, people like himself had long seen that all was lost. Walter Hoffman of the Speer Ministry, stated that people "on the higher level of intelligence" (presumably including officials like himself) never took Goebbels' propaganda seriously. Such claims, however, are relatively few.

Regarding assumptions as to popular acceptance of propaganda, the top officials from whom we have statements seem to be even less realistic. For example:

Elite Guard General Petrie:

People always said, "The Fuehrer has never lied to us."

Max Amann, one of the original founders of the Nazi Party, and Party press chief:

> The people's faith in victory was unshaken, due to propaganda and personal faith in Hitler.

Emmanuel Schaeffer, chief coordinator of morale reports, Propaganda Ministry:

The idea that the new weapons might decide the war was faithfully accepted by the people, who held tight to this hope until the last day of the war * * *.

Paul Schmidt, press chief, Foreign Ministry:

The effect of the propaganda exploitation of our V-weapons was the widespread feeling that what they can take we can take, too.

Dr. Gustav Adolf Scheel, Gauleiter of Salzburg:

The people believed in Goebbels' propaganda that some miracle weapon would come.

Other officials made more guarded statements. Thus Schaeffer, of the Propaganda Ministry, said that Goebbels constantly announced the penalties inflicted upon those convicted of listening to foreign radio stations, "but nobody paid any attention." To this he added: With the increasing aerial superiority of the Allies (early 1944) which stood in such gross contrast to the speeches of leading personalities, the task of the propagandist became more and more difficult.

Fitz-Randolph, of the Foreign Ministry, estimated that after Stalingrad not more than half of the German people credited Nazi propaganda, and that only a few believed in the wonder-weapons. Such skepticism, however, appears to have been unusual at the top level.

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There is considerable evidence that the degree of personal identification with the Nazi Party or Nazi doctrines is highly correlated both with personal belief in the claims of Nazi propaganda and with assumption of its widespread acceptance by others. Top officials, of course, were mainly selected for Nazi "reliability," and the inevitable price of this policy was that many of the officials in positions requiring cool unbiased judgment were in fact least capable of such judgment. Thus was Nazi propaganda ensnared in its own toils.

CHAPTER 5.—ATTEMPTS TO RALLY YOUTH

The problem of youth morale in wartime Germany presents a kind of condensed and intensified account of the over-all problem of civilian morale with which officials had to contend. The Nazi movement had been, in a way, a youth movement in itself, and its leaders remained particularly jealous of the loyalty of their youthful following. Ironically, it was because of this very overconcern that the Nazi regime came to face one of its most critical war morale problems. One youth measure, a program of evacuation to camps ostensibly to assure safety from bombing, came to be widely resented by parents. In spite of promises of only voluntary participation, compulsory measures were introduced; anti-religious teaching and Nazi indoctrination were the obvious purposes of the program. Probably no single measure introduced by the Nazis ever did more to spread popular disaffection. In this instance bombing served to undermine the Nazis, not directly, but because of resentment that officials were taking advantage of the bombing situation for their own purposes.

Nazi Youth Measures Prior to Bombing

The youth of Germany had been most radically affected by the progressive Nazification of Germany before and during the earlier part of the war. Although officially no compulsion was imposed, by 1937 almost 7 million boys and girls were coordinated in the Hitler Youth and its various subdivisions. This figure, after the introduction of the obligatory youth service on 25 March 1939, rose to about 10 million juveniles between the ages of 10 and 18.

The purpose of this huge organization was, as von Schirach, youth leader of the German Reich, defined it in a personal interview, "to educate German youth for the State." According to this same informant, political coordination and the soldierly way of life, which the former German Youth movement had sadly neglected, were made the keynote of the Hitler Youth, with the result that from 1939 to 1945 German children between 10 and 18 were exposed to the most systematic National Socialist indoctrination and to the mostrigorous physical training program possible.

Effects of Nazi Programs Upon Schooling

Even before the war, the Nazi youth program had come to have serious consequences for schooling. The Nazis' open contempt for intellectual 'education antagonized many parents and large numbers of teachers. An acute shortage of teachers was developing by 1939. Official indifference to academic training also resulted in shortages of textbooks and other equipment, fuel and even buildings for school purposes. Instructional hours were cut, particularly in winter, in order to conserve fuel. In Westphalia, for example, weekly class periods had been reduced by one-fourth in 1941.

Thus, even before the additional disturbances caused by Allied bombing, there was a heavy encroachment on school instruction. According to the careful tabulation of Dr. H. Schumacher, teacher at a Bremen school, the total loss of instructional hours during the period from 1 April 1941 to 31 March 1942 amounted to almost onethird of the entire instruction time which was 10,000 hours, exclusive of an estimated 6 percent loss caused by air-raid alerts.

TABLE 79.—Loss in schoo	ot time -
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	Hours	Percent of total instruction time
Loss due to:		
Lack of fuel	1, 917	19.3
Lack of teachers.	711	7.0
Miscellaneous reasons	279	2.8
Total loss	2, 907	29. i

In addition to the above losses, every Saturday was freed for the benefit of the Hitler Youth, and an entire school year was eliminated in all secondary schools. Furthermore, a veritable pandemonium of "extra-curricular" activities was introduced, ranging from the collecting of fees and contributions to the gathering of junk and beechnuts.

The inevitable effect of so much Nazi domination over the lives of youth was, in a sense, particularly on the part of teachers, religious organizations and many parents, that their prerogatives were being encroached upon. Thus, before the bombing had begun, many among these groups had come to find themselves in conflict with the regime over the custody of their charges.

Morale Effects of Precautionary Air-Raid Measures

Further Loss of School Time

Air raids made it necessary to draw up elaborate plans for the adjustment of school hours. As early as the fall of 1940 it was found necessary to issue specific directives to regulate instruction after night alerts or night attacks. For example, if an alert occurred before 10 p. m., instruction on the following day was to begin at 8 a. m.; if the alert continued beyond 10 p. m., instruction on the following day was to begin at 8:45 a. m., and at 9:45 a. m. if the alert lasted more than 2 hours (directive for Kempten schools, 7 May 1942). Similar directives appear to have been prepared in all German cities.

Especially in the earlier phase of the war, additional time was lost through frequent air-raid drills which usually meant to the students a welcome excuse from work but actually constituted a serious disruption of the regular teaching schedule. As a matter of fact, instruction itself was invaded by the requirement of enlightening school children with regard to the various aspects and dangers of air war. Germany's exposed position in the air was to be discussed in geography, facts about poison gases in chemistry, questions of ballistics and of the effects of explosives in physics, etc.

Air Force Auxiliaries

Even more disturbing to school instruction was the precautionary organization and training of a large number of air-raid protection personnel, such as messengers, night-watchers, fire-fighters, first-aiders, food-carriers, etc.

Among these "precautionary" air-raid organizations there was one; which more than any other single factor affected the education and the morale of youth, parents, and teachers alike: the recruiting of the so-called air force auxiliaries (LWH) from school youth of 16 and 17 years of age. In fact, the authorities must have been aware of the morale implications of this step taken on 26 January 1943. In fear that parents and people in general would see in it nothing but a disguised conscription of school children between 16 and 17 years, it was emphasized from the very beginning that,

The Fuchrer had consented to the employment of school boys as air force auxiliaries only under the condition that their school instruction would be continued at least 18 hours per week.

Although most of the boys evidently were pleased at their new semimilitary assignment and although, for a time, they were even willing to do justice to the scholastic side of their job, it became obvious only too soon that the school and the boys' education were the losers in this struggle:

For the first few weeks the air force auxiliary displayed a very fine interest in the school instruction starting on 16 March 1943. We now notice such a serious decline of their work and achievements that the success of the instruction of the air force auxiliaries seems gravely endangered (report by special commissioner for LWH of the Reich Ministry of Education, Kassel, 4 June 1943).

As early as March 1943, the Security Service reports begin to record an endless series of complaints and criticisms of the air force auxiliaries. It is clear, from voluminous and intimate documentation on this problem, that the principal factors in conflict over youth were the school, the armed forces, parents, and the Hitler Youth.

Parental Protests

Documentary sources tell repeatedly of the parental disappointment and indignation over what were regarded as flagrant violations of the explicit stipulation of the Fuehrer. The following are selected from many of similar tone:

The indignation of the parents is great. In the decree of the Air Ministry of 1 October 1943, it was stated that, "the Fuehrer consented to the employment of school boys as air force auxiliaries only under the condition that their school instruction be continued at a rate of at least 18 hours per week." The parents are well aware of this stipulation. In reality, several groups of auxiliaries have not had any instruction for weeks or even months (letter to the Reich Ministry of Education by Dr. Wagner, special commissioner of air force auxiliaries, Muenster, 26 Dec. 1943).

* * * The attitude of the parents concerning the instruction of the air force auxiliaries is extremely critical. They doubt whether their children are actually learning anything at all in the few hours of instruction given and are therefore viewing the future with great anxiety (report by Kaltenbrunner, chief of security police, to the Reich Ministry of Education, 23 Feb. 1944).

Parents also feared that the religious instruction and religious services for air force auxiliaries would be neglected, "as was the case in all matters coming and being controlled from above," (morale report, Dortmund, 8 Mar. 1943).

Moreover, they were uneasy because their youngsters, in spite of all promises to the contrary, were put on duty far away from home, frequently lacked proper care, food, clothing, and billeting, were being exposed to the uncontrolled influence of all sorts of seasoned soldiers, and in many instances lost their interest in a future civilian job, hoping for an éasier life in a military career.

Beyond the parents' individual concern over the welfare and future of their children, their morale in general was unfavorably affected by the consideration that, "Things must be in a mighty bad shape if the Government has to resort to the employment of our half-grown youngsters," (reports from the Reich, 15 Mar. 1943).

· Morale of Youth

The boys themselves were mostly full of enthusiasm. They were proud of this patriotic adven-, ture, which, as the casualties indicate, was not without danger, and in general they proved quite equal to their task. Only a few of them were aware and somewhat apprehensive of the loss of time and educational preparation, and most were unconcerned about the physical and nervous attrition which troubled all responsible air force auxiliary officers and army doctors. However, by January 1944 the morale of air force auxiliaries in at least one district, Vienna, seems to have been so low, both in its attitudinal and behavioral aspects, that the responsible special commissioner. of the district feels obliged to report in detail on "the complete demoralization" of youth:

However, the roll call of the prospective air force auxiliaries this year (1944), in contrast to the elevating celebration in 1943, was not a dignified occasion by any means. Morale was no longer, as formerly, the expression of a genuine enthusiasm, but rather the expression of complete indifference and inner apathy. As a matter of fact, in a great many cases open opposition to this auxiliary service was quite noticeable. Worst of all, every true National Socialist must have been disgusted to see in what soft and sloppy Haltung the majority of the pupils walked up to the Kreisleiter, how carelessly the Hitler salute was given, how rarely the *Treisleiter* received a firm, straight look from any of the boys, how contemptuously the call to the air force auxiliaries was accepted, how positively insulting the haste with which the boys stepped off and left the room, against explicit orders. Indeed, one of these roll calls must be termed a catastrophe. It revealed a complete lack of morale of the Hitler Youth which in its lack of discipline has gone to the limit of what was considered possible in our secondary schools * * *.

I see in this failure a necessary result of the manipulations through which the school in all questions of education has been more and more pushed into the background, if not completely eliminated (signed Wilhelm Ille, dated 23 Mar. 1944).

Direct Morale Effects of Bombing

Children's Reactions to Raids

Testimony from parents, teachers, doctors, and psychologists is all in substantial agreement. During raids, in cellars and bunkers, the small children up to 10, 11, or 12, were afraid and panicky, clinging to their parents or teachers and often crying hysterically. The older ones, no doubt, were equally afraid but displayed more discipline and poise. Many of the older children also assumed a certain heroic pose or took the experience of an air raid as an exciting adventure. But as the bombing continued, the children began to take raids and alerts with a growing indifference and as a matter of routine. Children who had to be rescued from wrecked houses often suffered a long time from shock, and wept and cried in their sleep.

However, in spite of the intense excitement of their emotional life, both the younger and the older children soon recovered their inner equilibrium. As may be expected of youth, again and again, the youngsters showed a remarkable resilience, far superior to that of the adults. In fact, when asked to tell or to write of their air-raid experiences, the children spoke mostly without inhibitions, and often with enthusiasm, of their impressions and adventures and even of the misfortune and suffering of their families and acquaintances.

In contrast to this resilience which kept up the morale of the youngsters, their physical and nervous reactions tended to show strain as the Allied air raids continued and gained in intensity and frequency. Informants agree that the constant interruption of the children's sleep through air alerts and attacks resulted in increasing physical and mental exhaustion of the children, in nervousness and lack of concentration.

Attitudinal Effects

As to the political reactions of youth under the impact of the Allied bombing, there seems general agreement that the children had no strong feelings of their own. To be sure, with the mounting fierceness of the Allied air war, the youngsters were more and more frequently heard to express their hatred of the enemy raiders, wondering "why they had to hit just their section of town which harbored little of military significance." With the impatience and bluntness of youth, they also questioned why the German Air Force was not doing anything about the raids, or when the promised retaliation raids on Great Britain would start. To a considerable extent, of course; such utterances must have reflected what the parents were talking about at home.

Morale Effects of Child Evacuation Programs¹ Official Concern

The morale effects of the evacuation program were the most serious for youth of all consequences of bombing. Authorities fully realized the serious implications of child evacuation for morale. Official correspondence and directives are full of obvious indications of concern over the dilemma; viz., that parents must be impressed with the dire necessity of evacuating children, but at the same time must not be alarmed by it. The most fundamental morale problem arose, of course, from the separation of children and parents which evacuation generally entailed. In Germany, this problem was aggravated by the fact that the breaking up of the family life, which had been proceeding ever since the Nazis' rise to power and especially during the course of the war, had made people rather sensitive on this point. To quote only one illustration:

In the case of a Dortmund family the father is employed and living in Dortmund. His wife is in Bad Salzufflen' with the three youngest children who are not yet attending school. Of the children going to school, a 12-year-old daughter is in a National Socialist Welfare camp in Bad Heilbrunn, near Tolz, a daughter of 14 is with the evacuated school in Freiburg, Breisgau, and one of 16 years attends the National Socialist Welfare Camp Leader-School at Zell near Nuremberg. A son of 17 is with the Reich Labor Service and a 19-year-old son is in the Army at Hohensalza. This is only one example of many others (morale report, Dortmund, 27 Sept. 1943).

Other general problems of child evacuation were the questions of transportation on crowded trains, of care while *en route*, of adequate housing, feeding, cooking, and clothing, of hygienic conditions and medical care, of progress in school, of unknown and unwelcome influences, and of a proper supervision of moral conduct and personal development. There was also the worry, quite frequently expressed, that the parents might die in the exposed areas, leaving the children alone. The official German Intelligence Reports yield an endless stream of criticisms and complaints of this sort.

The Emphasis Upon Voluntary Evacuation

Von Schirach, when summoned to Berlin by the Fuehrer in October 1940 to take over the organizing of the "Child Evacuation Program to Rural Areas," warned Hitler at once that:

This would be possible only on a voluntary basis, and even then it would cause the greatest difficulties, involving as it does the separation of children from their parents (interrogation of von Schirach).

This emphasis on voluntariness, this un-Nazilike refraining from force, revealed the concern which

⁴ See ch. 4, pt. II for further discussion of evacuation.

the leading Nazis felt for the possible morale implications of child evacuation. That is why this principle of voluntary evacuation was officially reaffirmed by Hitler at the end of 1942, when he approved the evacuation 'of entire schools:

Upon recommendation by von Schirach as Commissioner of the Fuehrer for Evacuation of Children to Rural Areas (KLV), the Fuehrer has agreed to the evacuation of entire school classes from threatened areas within the framework of the Children's Rural Evacuation Agency. However, in the case of school evacuation, compulsion is to be avoided by all means. It is up to the parents to decide whether their children are to be evacuated or not (signed Lammers, chief of Reich Chancellory, 17 December 1942).

About a year later, in his speech of 28 November 1943, Goebbels concurred with his master and made this concession with regard to child evacuation:

I know very well that in this question one - doesn't get very far with compulsion, and the Government has therefore retrained from using it (*Rhein-Mainische Zeitung*, 29 Nov. 1943).

Main Types of Child Evacuation

Mother and Child.—This program for evacuation of mothers and children up to 6 years of age, and of children up to 10 without parents, caused least complaint, largely because the National Socialist Welfare Organization took care of such technicalities as transportation, location of quarters, etc., and otherwise left the children completely to the care and supervision of their mothers or parents.

Uncontrolled Evacuation of Children up to 14. —This was a voluntary program of evacuation to relatives and acquaintances. The National Socialist Welfare Organization interfered with this type of evacuation only to the extent of requesting evidence of the relationship with the person in the reception area. So the initiative, technical arrangements, and responsibility for proper accommodation, feeding, and schooling rested with the parents, who found this type of evacuation the most natural and satisfactory, to judge by the lack of criticism and the number of children evacuated this way. Controlled Evacuation of Children Between 10 and 17.—The children were evacuated to camps of the "Children's Rural Evacuation Agency." This program was entirely controlled by Hitler Youth, representing the Party, except that school instruction was nominally in care of the regular school administration. In regard to housing, food, the care of health, and the physical development of the children, the Children's Rural Evacuation Agency camps did a satisfactory job. In fact, the children in these camps received extra rations, which provided one of the main points of attraction.

Parents' opposition to the evacuation of their children concentrated more and more on this type of evacuation. In the course of the last two years this opposition became a most serious morale problem. This is the unanimous testimony of official morale reports, interrogations, memoranda, letters, and accounts of parent-teachers meetings. Parents feared that the Party was actually taking advantage of the emergency created by the Allied air war in such a way as to remove the children more than ever from the influence of parents and teachers, and to expose them to a wholesale indoctrination with Nazi ideology through the evacuation camps of the Children's Rural Evacuation Agency. No doubt, their suspicion was amply justified by the administrative setup and the regulations of camps as well as by explicit statements from official quarters. Says Baldur von Schirach, in the *preface* to the regulations for Children's Rural Evacuation Agency camps:

The leading principle of camp life in the camps is the education of the young boy or girl to become a member of the National So-- cialist People's Community. Camp directors and camp boy leaders have within our organization the unique opportunity of working toward that goal, and not only in a few short duty and instruction hours. They are taking care of their boys and girls day after day, also outside of these particular hours. (Erweiterte Kinderlandverschickung, Anweisungen fur die Jugend und Madellager, KLV-Lager, 4th edition, 1943).

The question of religion and of religious instruction was one of the main reasons for opposition to the program. Officially, as Baldur von Schirach stated in an interview, the evacuated children were to have religious instruction exactly as in their regular schooling, because, as ne claimed, he had expressly asked the Fuehrer for such a provision, and Hitler agreed. In practice, however, every means was tried to reduce, if not to eliminate, religious instruction in the camps. It was not permitted inside the camps. Moreover, the Hitler Youth leaders in many outside camps did their utmost to prevent the children from attending Sunday services elsewhere by scheduling all sorts of special Hitler Youth duties, K. P., etc., at the same hours.

For these and perhaps other reasons, parents began to bring their children home from the camps; nothing seemed to be able to prevent them from doing so. Of course, not only children from the Children's Rural Evacuation Agency camps but also other evacuated children were thus returned home. But documentary material suggests that the percentage from camps was the, highest. Especially in the fall of 1943, official intelligence reports refer with increasing frequency to the uncontrollable crowds of evacuated children who were returned to the home area. Of a total of 40,450 children evacuated from Munich, 4,570 or more than 10 percent returned by 20 October 1943, according to a letter by the head of the city school department of Munich to the district commissioner, dated 12 November 1943.

In view of the threatened failure of the entire project, so-called indirect measures of force were then applied. Meanwhile, the principle of voluntary evacuation, on which people based their right to return their children at will, was not revoked. A letter by the Party commissioner for the Children's Rural Evacuation Agency (Munich, 15 Oct. 1943) gives some insight into the troubles and the remedies proposed in this connection:

"The problems of child evacuation and the craze of the parents to get their children back home have been discussed at a meeting in the Party Chancellory, with the following results:

(1) The Fuehrer continues to refuse the application of direct measures of force in connection with the KLV evacuation of children.

(2) However, in order to keep up the parents' willingness to evacuate their children through KLV, one need not have any scruples about applying indirect measures of force, such as the following * * *." There follow suggestions for refusing permission to children to enter schools at home, for making it difficult for them to get ration cards, for demoting them in school.

The result was disappointing. None of these "indirect" or illegal measures could intimidate the public. In fact, they seriously discredited the prestige of Government and Party, intensified attitudes already hostile to the political leadership, and produced serious behavioral effects, such as violent protests, open demonstrations, disobedience, and sabotage. In spite of the steadily intensified Allied bombing, people preferred to have their children with them in the threatened areas, rather than evacuate them and thus expose them to an uncontrollable indoctrination with Nazi ideology.

The extent to which the situation had gotten . out of hand by the end of 1944 is evident from a directive of the Wuerttemberg Ministry of Education (Stuttgart, 6 Oct. 1944), which stated that the amount of traveling to and from Stuttgart by school children from all types of schools has become so great that it was impossible to determine how many there were, or to get any general picture of the situation. A similar communication from the Department of Primary Schools (Tuebingen, 13 Dec. 1944), concerns the problem of ascertaining the whereabouts of school children who have wandered from the State of Hessen to Wuerttemberg. The federal governor in Hessen cannot determine where they are, and has called upon the Reich Education Minister for help in this matter.

Controlled Evacuation of Entire Schools.-The discrediting of the KLV evacuation of children steadily increased the popularity of evacuating whole schools. A number of factors caused the parents to place an ever-increasing confidence in this type of evacuation. The schools were usually moved into neighboring areas. Most of the regular teachers whom parents and children trusted went along. The children left in the company of their friends and classmates. The entire school, or at least as many classes as possible, were evacuated together, so that a wider range of subjects and a more specialized type could be taught. There was no undesirable interference of the Party or the Hitler Youth, except for the regular Hitler Youth duties with which every youngster had to comply anyway.

Opposition Youth Groups

On 1 July 1943, Himmler issued a decree "concerning the protection of youth," which in its first part contained drastic regulations of such matters as a 9 o'clock curfew for juveniles between 16 and 18, attendance at movies and public dances, etc. In the second part, special instructions were given to the police,

To watch associations of juveniles in gangs, as past experience has shown that these frequently lead to crime and general slackness. Attention is drawn to unregulated camping and hiking by juveniles *outside* the Hitler Youth.

The last sentence almost certainly refers to certain youth groups or organizations which were in opposition to the Hitler Youth.

The Edelweiss Movement

It is well-known from prisoner of war interrogations and other sources that there were oppositional youth groups in Germany during the war, although few details about them have come to light. There are indications that the best-known of these groups, the so-called *Edelweiss*, existed as early as the summer of 1941 (and probably before), when a prisoner of war claims to have joined it in Leipzig. Because of the name, it is assumed that this particular organization originated in Bavaria, spread from there to Austria, then to the Rhineland, and thence to other parts of Germany. The largest estimates of membership totals are given for Cologne (3,000 to 4,000), Hamburg (2,000 to 3,000), Berlin (2,200 to 2,300), Leipzig (90 percent of the entire Hitler Youth there), and Bremen (800 to 1,000). No figures are available for other cities in which the organization is known to have existed.

Since all German youth organizations were

coordinated in 1939, the majority of the Edelweiss members. also called Edelweiss-Piraten, belonged to some official Nazi youth organization. But they were opposed to the program of the Hitler Youth, its ideology and military coercion, and were bitterly disappointed by the exploitation of German youth for the purpose of feeding the Nazi war machine. As a result, they indulged in sabotaging the Hitler Youth organization by propaganda, by noncooperation, and frequently by beating up loyal Hitler Youth leaders. They were held together, negatively, by their common opposition to the existing Nazi Youth organizations. But it is more than doubtful whether they had a definite program, political or ideological. In fact, the opposition movement seems to have involved very heterogeneous persons, since we find that the most active of its members were either Catholics or Communists, and, from the viewpoint of social class, young students or factory workers.

The Role of Bombing

To what extent was the rise of these oppositional youth groups affected by Allied bombing? The most heavily bombed cities, such as Cologne, Hamburg, Berlin, Leipzig, and Bremen, were, at the same time, main centers of Edelweiss activity. But these cities are known to have been centers of adult opposition, too, before bombing began. Like adult groups, the Edebueiss took advantage of the air war for its own purposes. This is illustrated in a two-page leaflet printed by the *Edelweiss* group in Osnabrueck. One page of it shows the picture of a street in Osnabrueck destroyed by an air raid, with the caption, "For this we thank our Fuehrer"; the other page shows a picture of the ruins of a factory demolished by an air raid, with the caption, "That will be the end."

CHAPTER 6.—THE RELATION OF BOMBING TO DISRUPTIVE BEHAVIOR

The decline of morale was bound to be reflected in all kinds of social conduct subject to regulation and enforcement through the administrative-legal machinery of the Nazi State. Various types of social and political disorganization were the inevitable byproduct of demoralization.

In the following two chapters an attempt is made to assess the measure of disruptive, subversive, and oppositional activities which occurred during the war and to relate their incidence to the effects of strategic boinbing. While the term "subversion" is here used to denote unorganized acts inimical to the regime and of essentially political significance, (whether or not they have a purely political motivation), the term "disruptive" behavior denotes selected types of offense, essentially non-political in character. Only organized anti-Nazi activities are to be designated as "oppositional."

The general statistical evidence of criminal cases and Gestapo arrests, an analysis of disruption and the efforts to combat it are treated in this chapter. Subversion and opposition, seen against the background of the totalitarian machinery of control, will be the subject of chapter 7.

Criminal Statistics

Statistical data available in this field are unfortunately incomplete and somewhat incoherent, because of the widespread destruction of materials. The most significant relevant indices, which are available, follow:

1. A tabulation of Gestapo arrests covering the first 6 months of 1944.

2. A summary of "progress" report by the Minister of Justice on the incidence of capital sentences from 1939 to 1943.

3. The reconstructed criminal statistics of a few major urban jurisdictions, drawn from court and prosecutors' records. The uniform, centrally collected criminal statistics were. unavailable.

Although none of these data reflects the complete picture of disruptive and subversive activities in Germany, they provide a quantitative basis for estimating the magnitude and general trend in this type of behavior. At the same time they are symptomatic of the growing aggressiveness of Nazi law enforcement activities. Both of these factors work in the same direction, to increase the number of arrests and convictions. Thus the material reflects the progress of social disorganization, as well as, in some measure, the growing preoccupation of the Nazi authorities with disruptive elements, a concern which is apparent in many explicit statements.

Gestapo arrests statistics for the first 6 months of 1944 contain information on two types of offense which are relevant to the present discussion: political and religious offenses, and labor offenses. During this period, arrests of Germans in the old Reich for broadly political and religious causes totalled about 19,000. There was no consistent increase in the number from month to month during the 6 months covered by available records.

Arrests for labor violations amounted to 13,000 for this period. In this case there is some increase in the second half of the period (7,306) as compared to the first (5,697). These figures include only Germans. Comparable data on arrests of foreign workers for the same offense indicate that repression and discipline lay infinitely more heavily on imported foreign labor than on the German worker. Two hundred and four thousand of this group were arrested, over 15 times the number of Germans.

Death sentences increased in number during the course of the war. The report by Dr. Thierack, Minister of Justice (published in *Die Lage*, 23 Aug. 1944) includes the following statement:

In accordance with the commission given to me by the Fuehrer to administer justice, to proceed in time of war by the severest means against traitors, saboteurs and other undesirable elements, those committing crimes of violence and anti-social habitual criminals * * * the number of death sentences has increased continually since the outbreak of the war. The total figures for this period are stated below:

TABLE SO.—Death 'sentences 1

1939	• • • • • • • • • • • • • • • • • • • •	99
1940	••••••	926
,1941	,	,391
1942		.660
1943	5	.336
•		

"These figures include both Germans and foreign workers and there is no way of separating out the numbers for each group.

There follows a breakdown by type of crime, for 1943. High treason and treason account for 1,745 of the total cases, or 32 percent. There are 938 cases, or 17 percent which fall in a category labeled "dangerous habitual criminals. (thieves, swindlers, profiteers from black-out and war conditions)." Another 182 cases, or three percent," relate to looting of bombed houses. Because of this method of classification, it is not possible to determine what percentage of these death sentences were directly related to bombing. From, the beginning of the way many crimes were prosecuted under "regulations relating to crimes against the community" (Verordnung gegen Volksschaedlinge, or VVO). For example, a petty thief who profited by a black-out to commit his crime could come under VVO, and rereive à more serious judgment.

Whatever the reasons for these death sentences, the significant thing is that they increased steadily throughout the war. In the fourth full year of the war they were nearly six times as frequent as in the first, in spite of the 61/2 years which the Nazi regime had before the war to clean out the "dangerous elements."

· Criminal statistics for the war years are available for four urban jurisdictions, as shown in table 81 :

The average monthly total of cases indicates an upward trend for Leipzig. For Hamburg the apparent trend is downward and there is little change in the others. However, when the decreased population of these cities, especially of Hamburg, after 1943 is taken into consideration, these figures are suggestive of an increase in. crime rate. Hamburg had a prewar population of 698,400 whereas its population in 1944 was probably not much more than 100,000.

Special Types of Disruptive Behavior

Looting

Looting is a type of crime most likely to increase following air raids. The statistics in table TABLE 81.—Oriminality in four drban jurisdictions

,City	Year	A versau nionthly total, all cases (in thousands)	A verage monthly looting and and thefts (in thousands)	Looting and thefts as percent of of all cases	Annual bomb tonnage
Hamburg	1941	7.6	1.7	22	
(1940 pop. 698,400)	1942	7.0	2.0	22 20	i, 000
(,	1943	6.0	2.0	33	5, 750
	1944	5.2	1, 6	31	14, 100
. •	1945	4.0	t. 4.	35	P3,000
Bremon	1941	4.5	1.8	40	
(1940 pop. 419,300)	1942	4.3	2.2	- 51	2, 150
	1943	8.9	2.2	56	5, 350
	1944	, 3.2	2.8	-75	5, 350
	1945	4.2	3.3	79	1.5, 100
Leipzig	1940	6.6*	. 5	8	50
(1940 jop. 702,200)	1911	6.8	. 0	9	30
	1942	7.3	1, 2	16	50
	1613	7.4	1.3	18	800
· · ·	1944	7.7	- 1.8	12	3, 890
Luebeck	1941	.0	. 5	. 53	 -
(1940 pop. 149,500)	1942	1.0	.6	58	100
	1943	.9.	. 5	50	50
•	1944	.9	. 5	59	240
	1945	1.1	.7	65	20

¹S months only

81 indicate a marked increase in looting and thefts in all four cities, over the period of increased air activity. The percentage of looting and theft in Leipzig, which was only lightly bombed before 1944, is remarkably low, but since the figures had to be reconstructed from various records, one cannot be certain that the classification of crimes in Leipzig parallels that in the other three cities. The prosecuting attorney of Hamburg agrees with these data when he states the opinion that a close relation exists between air attacks and looting:

The destruction of homes and stores and the emergency repairs made to normally locked entrances undoubtedly influenced criminal elements to greater activity. Also, parts of the population, which under normal conditions would never appear before a criminal court, were spurred to criminal activity as a result of aerial attack. This applies especially to people who made exorbitant and untrue claims against-the Government for property losses incurred by the attacks. The unsatisfactory psychological effect of prosecution of such offenders on the rest of the nation was responsible for the policy of bringing to trial only a few, the absolutely clear cases, of attempted exploitation of the Government.

But again it must be stressed that the statistical evidence is far from adequate to support this entire claim.

There is no doubt, however, that looting did exist in connection with air raids, that the detective force was constantly on the alert for such crime and employed special squads for the purpose and that death sentences were imposed. This is evidenced by numerous scattered reports, and by the Reich-wide statistics given above. As indicated there, in the 1943 statistics of death sentences, 182 such sentences were imposed for looting. From Freiburg comes the report that,

Looting was one of the chief problems of the police. All kinds of people participated, including the "decent" people. More patrols and controls were instituted, but were ineffective. The death penalty was carried out at least once * * * but looting continued.

It is quite apparent that the Party was much concerned about looting, and tried to divert public attention away from it. For example, a propaganda directive in 1942, concerning the manner in which measures against looting should be presented to the people, states that the impression must be built up that only foreigners are the offenders and German nationals do notloot. Sometimes, it was explained, Germans are "suspected" of looting, but they were only helping their neighbors to salvage goods. Should the matter become more serious, notices should be published urging people to return "salvaged" goods to their rightful owners (propaganda directive to all Reich press offices, 24 July 1942).

Juvenile Delinquency

Youthful crime, especially in the form of thefts, became a serious problem with the progress of the war, probably the most widespread of all forms of crime. Again, statistical material is far from adequate and it is not possible to give exact rates. The most important documentary evidence of the general extent of this problem is a printed circular sent by the SS Reichsfuehrer and chief of German police (Himmler) and written by Dr. Kaltenbrunner, head of the Security Service (Berlin, 25 Oct. 1944), on the subject of combating juvenile gangs:

> Juvenile gangs have been developing for several years in all parts of the Reich, but

especially in the hirger cities. Recently they are found in greatly increased numbers.

It points out that these gaugs were formed outside the Hitler Jugend, and failed in their duty to the folk community, especially in their lack of will to contribute to the war effort. Some . of their members came from "bad families" and "anti-social kinship groups" but an increasing : number were being recruited from "respectable" homes.

On the basis of available figures, the increase in juvenile delinquency appears to have been most marked in the early years of the war. A report of the Party Chancellory, signed by Bormann, 29 August 1944, comments on statistics furnished him by the Reich Minister of Justice (which we do not possess) and states that the number of convicted juveniles had doubled between 1937 and 1942. He also comments on the "truly serious nature of these statistics," which presumably covered the period of August 1944. A Hamburg informant reports an increase of at least 300 percent.

The reports by the prosecuting attorneys of Hamburg and Bremen, referred to above, comment at length on the seriousness of juvenile delinquency in that area. A letter from the security police to the detective forces in Munich and Augsburg, 27 December 1944, makes reference to the Kaltenbrunner directive on combating juvenile gangs, and states that there was a "considerable amount" of gang activity in Munich. and that damage to public buildings was making it difficult to follow the directive. A memorandum from the State Youth Office in Kempten claims that juvenile delinquency increased throughout the war in that area. A similar claim is made in a memorandum by the Youth Office at Frankfort-on-Main.

Thus juvenile delinquency generally increased during the course of the war in Germany, as it did in America, and became a problem of serious concern to the Nazi regime. When oneraises the question of the factors which led to the increase, the answer is less certain. The memorandum referred to above, plus a series of 10 interrogations on welfare of youth in Munich, all attempt to explain the increase. The disruption of normal family life, loss of parental control, and the "thirst for life" of youth amidst death and destruction, are invariably mentioned as the factors involved. The extent to which political ferment was at work is less easy to ascertain because it is rarely admitted in official statements. In the areas where air raids occurred, they too are alleged to have increased juvenile delinquency. It is stated that gangs engaged in looting after air raids. The black-outs, bombdamaged houses and air-raid shelters are alleged to have fostered illicit sexual relations, which seem to have been prevalent in these gangs.

The situation in Kempten, which was bombed only lightly and quite late in the war, helps to throw some light on the relationship of these factors. There, too, juvenile delinquency increased, quite apart from any direct effect of strategic bombing. However, even there, an indirect effect may be seen. There were many evacuees from northern industrial areas, whose ways of life were different and who, judged by Kempten standards, were "looser" in morals, particularly in matters of sex. They exercised a considerable influence on the youth of Kempten. Also the black-outs, alarms and disruption of school life fostered gang attitudes and behavior patterns. In fact, youth in Kempten were generally pleased by air-raid alarms, because they meant no school and a general relaxation of adult discipline-were pleased, that is, until they had actually experienced a raid.

It is safe to conclude that bombing acted as an indirect factor in the increase in juvenile delinquency, an increase which takes place in modern total war whether there is bombing or not. Where bombing occurred, it served to provide occasions and facilitate conditions for gang activity; routines and sentiments of a "delinquent" type became so thoroughly integrated with the bombing situation that people were given the strong impression that bombing was a major factor in the delinquency itself. In those parts of Germany where bombing did not actually occur, black-outs and alarms operated in the same way.

Black Marketing Activity

Various types of inflationary activities constituted a type of disruptive behavior which was difficult to control, and is difficult to estimate in extent. That such activities existed on a scale alarming to the Party and its control agencies is proved by many documentary sources. For example, the files of the price control agency in Cologne, December 1943-February 1944, contain the following report which is typical of many:

The situation in the district of Cologne has changed radically because of devastating aerial attacks. It is apparent that psychologically as well as materially the conditions for a strict enforcement of price regulations have deteriorated considerably. It must unfortunately be stated that money as a medium of exchange is limited to a smaller and smaller sector of the economy. Goods which can be spared and which previously . were sold for money are increasingly used for barter only, particularly for food consumption articles. Money circulation is limited more and more to that sector of the economy which is public and controlled by the community. In the Cologne district, where the appearance of enemy planes shows the population almost every night the way of all flesh, an exact legal price determination does not play the role it used to do.

The police departments attempted strict control over food and personal supplies such as clothing. Few police reports are willing to admit that the control ever broke down. Some admitted difficulty in enforcement due to lack of men. Others admitted "winking" at hoarding, especially by "little people." Many blamed both black market and hoarding on Party officials. Many officials blamed the black market on the foreign laborers.

Sometimes the fellow who delivered the goods could be caught, but the "wholesaler" could not be found. Trading and exchange of goods by regular merchants was widespread. In Suttgart, it was reported that a large black market was operating out of Cannstatt, with foreign laborers in charge.

Here the trade might go as follows: bread for cigarettes, cigarettes for shoes, shoes for pants, and pants for bread. In many cities control collapsed with continued raids. However, Kempten reported stricter control as time went on. Hamburg reports an enormous black market, with house-to-house delivery. A competent informant believes that many of the wealthier people there spent 500 marks a month on black market food. In Cologne, a Party member "requisitioned" 1,600 marks worth of cigars, while the public got none. In Bonn, people felt in October 1944 that the Government had writ-

ten the Rhineland off as lost so they began to take everything they could get. A boat load of salt was seized, and used by the city to barter with other cities. Ration coupons were a favorite ' on the Bremen black market. In Eckenfoerde, black market food came from Denmark, and "everything," "everybody," "everywhere" hoarded. Police did not bother to check up. In Wetzlar there was so much barter that, "it would have taken one policeman for each resident, and one policeman for each policeman, 'to control it." In Dortmund, as in several other cities, "dealers, well-paid workers, and Party officials," were thought to be the chief offenders. Luebeck reports that it was hard to find offenders, for they ate up the stuff immediately.

Such activities came under the category of war crimes against the community, and hence an increase~in the numbers of cases of this type reflects, in part, increasing black market activities.

TABLE S2 War	crimes	against	the community, H	amburg
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Year	Number of cases	Number of raids	Bomb tonnage
1940	270	None	None
1941	284	None	None
1942	405	11	1, 0 0 0
1948	496	21	5, 780
1944	724	54	14, 100

In this case, the factors involved in the increase may be readily analyzed, as they follow the usual course of economic behavior. Commodities for civilian use became very scarce under an economy geared to war. A rigid system of rationing and price control was attempted. An elaborate propaganda was used to induce people to conform to the system. But, even under a totalitarian regime, the strain toward real prices, reflecting actual conditions of supply and demand, made itself felt.

In general, food was the chief commodity on the black market; such hoarding as the liftle fellow did was overlooked. The big offenders usually managed to escape the police. Barter and exchange was widespread. Those who could afford to patronized the black market. It was national in scope, not really controlled, practiced by Germans and foreign laborers alike, and must have affected the national economy to a considerable degree. As a morale factor, it brought a further cleavage between rich and poor, Party member and non-Party member, those who could buy and those who could not. Bombing did much to facilitate black market activities. Many commodities, which were thought of as essential, were destroyed in the raids. People were given money payments in compensation for bomb damage, a clearly inflationary practice. Also evacuees were sometimes in a position to hoard goods obtainable in rural areas, to send them back to their home area and dispose of them on the black market. Bombing also facilitated and provided occasions for black market transactions. For example, cellars in bombed out homes were a favorite place for such transactions to occur.

The Role of Bombing in Disruptive Activities

German officials, directly concerned with criminal prosecution during the war, expressed the opinion during interrogations that air attacks increased general criminality:

The general over-all effect of war is demoralization of the people and carries in its wake a tendecy for increased criminality. The reasons for this demoralization are manifold, but the most important reason lies in the psychological effect of the moral and material losses of the war created by bombing. (Dr. Bellinger, prosecuting attorney for Bremen.)

The growing number of criminal acts was caused to a very large degree by the air attacks. Air raids of the type of the attacks in July 1943, causing total destruction of large parts of the city, change not only the structure of the city as a whole but also the individual human being subjected to the catastrophe. Such a destruction not only provides ample opportunity for criminal acts, but also lowers the moral code and changes the social position of the victims of the attack. One who experiences the loss of all and everything for which he has worked and slaved for many years, perhaps all of his life, and sees bursting into flames all his dreams of home and future, becomes. indifferent to the law and order of government regulations. This is shown by the increase in criminality since 1943. If the statistics do not convey that at first glance it will have to be kept in mind that the population ' decreased considerably during the last war years. (Dr. Schuberth, prosecuting attorney for Hamburg.)

Evidence collected from 33 German cities confirms such interpretations. On the basis of information on disruptive behavior obtained from interrogations and memoranda prepared by local officials, it was possible to arrange these cities in rank order, according to the degree and seriousness of disruptive behavior during the war. This rating of cities took into consideration the amount of looting, delinquency, and other crimes, the frequency of riots and demonstrations and the prevalence of black market hoarding. The ranks assigned appear in tables 83 and 84.

TABLE 83.—Rating	of	citics on	disruptive	behávior 1
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В	laok-market hearding	Looting	Crimes, delinquency
1.	Damburg	1. Freiburg	1. Hamburg
2.	Cologne	2. Boltrop	2. Neumuenster
3.	Stuttgart '	3. Uini	3. Freiburg
4.	Bonn	4. Hamburg	4. Karlsruhe
5.	Kessel	5. Kassel	5. Dortmund
6.	Haunover	6. Luebeck	6. Wetzlar
7.	Bremen	7. Frankfort-on-Main	7. Ulm '
8.	Eakernfoerde	8. Wetzlar	8. Muenchen-Gladbach
Ø.	Munich	9. Dortmund	9. Kempten
10.	Wetzlar	10. Cologne	10. Eckernfoerde
11.	Dortmund	11. Karlsruhe	11. Eason
12.	Karlsruhe	12. Breinen	12. Luebeck
13.	Luebeck	13. Hannover	13. Nuremberg
14.	Ulm	14. Essen	14. Stutigart
15.	Luedenscheid	15. Bonn	15. Bremen
ið,	Nuremberg	10. Stuttgart	16. Muenster
17.,	Bottrop	17. Nuremberg	17. Kassel
18.	Neumiensier	18. Munich	18. Muenden
19.	Muenster	 Wuppertal 	19. Speyer
20.	Freiburg	20. Spoyer	20. Bottrop
21.	Muenchen-Gladbach	21. Muenster	21. Bonn
22.	Frankfort-on-Main	22. Neumuenster	22. Munich
28.	Erlängen	23. Erlangen	23. Luedenscheid
24.	Kompten	24. Witten	24. Cologne
25.	Wuppertal	25. Muenchen-Gladbach	25. Hannover
26.	Essen	26. Eckernfoorde	26. Wuppertal
27.	Witton .	27. Detmold	27. Frankfort-on-Main
28.	Speyer	28. Kempten	28. Erlangen
29.	Detmold	29. Luedenscheid	29. Witten
80.	Kettwig .	30. Kettwig	30. Kettwig
81.	Muenden	81. Muenden	31. Detmold
32.	Blasendorf	32. Bissendorf	32. Bissendorf
33.	R ietze	33. Rietze	33. Riotze

¹ The rating of 1 indicates, in each case, the most of the particular kind of behavior, and 33 the least.

Riots and Demonstrations

•			
	Munich Luedenschold	3. Kempten 4. Essen	 Cologue Ramburg

. (No riots or demonstrations reported in other cities.)

A further analysis was made by dividing cities into three groups of 11 each, and computing the average bomb tonnage for each group. Table 85 gives these results.

TABLE 84.—Rating of oities on disruptive behavior general rating (based on all factors)¹

Bomb tonnage		Bomb tonnage	
1. Hamburg	41, 300 10, 100 47, 200 6, 600 27, 300 11, 500 27, 300 27, 300 41, 600 4, 600 5, 100	18. Hannover	24, 700 0 22, 200 29, 500 29, 500 18, 100 300 7, 000 0 1, 700 0 1, 700 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

¹ Hamburg reported most disruption, Kassel next most, etc., down to Rietze, which reported least. When 2 or more cities have the same rank number, they were given exactly the same rating.

TABLE 85.—Relation of severity of bombing and disruptive behavior

Most disruptive behavior : Average tonnage
(Hamburg, Kassel, Cologne, Ulm, Freiburg,
Wetzlar, Dortmund, Karlsruhe, Munich.
Luebeck, Stuttgart) 19,300
Intermediate in disruptive behavior:
(Bremen, Essen, Bottrop, Bonn, Neumnen-
ster, Kempten, Hannover, Eckernfoerde,
Hoenberg, Gudenscheid, - Müenchen-Glad-
bach) 12.300
Least disruptive behavior:
(Frankfort-on-Main, Muenster, Speyer, Wup-
pertal, Erlangen, Muenden, Witten, Det-
mold, Kettwig, Bissendorf, Rietze) 4.700
None of the cities in the first group was un-

None of the cities in the first group was unbombed; two of the intermediate group and six of the last group received no bombs at all. The least bombed towns show the least disruptive behavior.

This same relationship between bombing and disruptive behavior is expressed in a rank correlation coefficient ¹ of 0.44 between the ranks of the cities on disruption and bomb tonnage. This analysis is discussed in chapter 1 of volume II.

The relationship between bombing and disruptive behavior is, however, not clear. It must

¹ If the correspondence between bombing conditions and disruptive activity had been such that the city receiving most bombs showed the most disruption, the city with the second heaviest bomb load, the second most disruption, etc., down to the least bombed city which was also the least disruptive, the correlation would be perfect and could be expressed as 1.00.

On the other hand, where there is no relation at all between 2 measures, the correlation is said to be zero. If, for example, some citles receiving heavy bombing showed much disruption and others little and some receiving light bombing showed much and others little disruptive activity, the correlation would be close to zero.

not be overlooked that it was the larger cities which received the heaviest bomb-loads, and larger cities are invariably characterized by a disproportionate share of disruptive acts, bombing or no bombing. The larger cities, moreover, tended to be centers of Nazi disaffection, whereas many of the smaller centers were Nazi strongholds, with almost no evidence at all of political opposition. Some of the social disorganization must be attributed to factors other than bombing.

Conclusions

1. It has been found that strategic bombing was responsible for a marked increase in special types of criminal disruption, such as looting, thefi and black market operations for which it created incentives and opportunities.

2. Similarly, it could be shown to have been a substantial factor in enhancing wartime juvenile delinquency.

3. The relationship between bombing and increasing criminality is not clearly established because of the association of bombing with city size and of the latter with disruptive activity. In general, however, strategic bombing was apparently a contributing, if not a primary factor in the increase of criminality.

CHAPTER 7.—THE CONTROL OF SUBVERSION AND OPPOSITION

• The Nazi Apparatus of Control

The home front of the German Reich, the "Inner Front" as Himmler called it, was clearly recognized as one of the major theaters of operations. It was the Nazis' original theater of operations and could never be safely neglected. The forces mobilized by them against domestic objectives went far beyond the conception of "the police" and legal apparatus as employed in demogratic countries.

Police and Courts

The German police system went through the same stages of development as other agencies of the Nazi Government, with the establishment of centralized responsibility and the continuous increase in Party ascendancy. By 1936, after some jockeying for power against Goering, Himmler, who was already head of the Elite Guards (SS), had emerged as chief of all German Police. In this capacity he rearranged all governmental police services (on the national, state and local levels) under two major divisions, the regular police (Orpo, Ordnungspolizei) and the security police (Sipo, Sicherheitspolizei). The security police comprised the established criminal police or detective force (Kripo, Kriminalpolizei) and the Gestapo (Geheime Staatspolizei, secret state police). As head of the Elite Guards, Himmler also had at his disposal the separate security service of the Elite Guards (SD, Sicherheitsdienst der SS). Finally, in 1939, the government and party police services were coordinated through a joint National Security Office (RSHA, Reichssicherheitshauptamt) in Berlin under Himnfler's general supervision as Minister of the Interior and chief of German police.

Regional control over all police services in each army region was vested in Himmler's representatives, the "Superior Elite Guard and Police Leaders," whose operations became especially effective at the outbreak of the war.

Within this large-scale organization it was mainly the detective force (increasingly indoctrinated and expanding in scope), the Gestapo and the security service which, informally known as the State Protective Corps, constituted the principal buttress of power. While the influence of the security service over the other two services appears to have grown progressively, a real fusion or integration of Party and Government protective forces does not seem to have taken place (interrogation of Ohlendorf, chief of division III, RSHA).

If one bears in mind considerable overlapping and the constant tendency of the Party service to expand its powers and activities, the division of labor in the domestic phase of this "State Protective Corps" may be described as follows:

The security service, through its local and regional network, gathered and consolidated increasingly elaborate intelligence reports on all phases of community life and activities, with a definite emphasis on general trends, attitudes and morale in all "national spheres of life" (morale reports, Stimmungsberichte). It was not the only agency which produced such reports. In fact, in recent years, there was hardly one which was not required to do so.

Since the responsible security service personnel was recruited from the most zealous and reliable members of the Party, these morale reports could afford to be surprisingly frank. Although they were based essentially on the consolidated reports of local informants and not on scientific sampling, objectivity was the official policy. This was not true, as a rule, for the comparable reports of other agencies, least of all for those emanating from the general Party organization itself.

The Gestapo, with its own comprehensive official and undercover organization, was in charge of actual police operations of a broadly political character, with the accent on "measures to prevent acts inimical to the state." In effect, it had sweeping authority for the arresting, detaining and "liquidating" of any and all whom it regarded as actual or potential enemies of the regime. This authority was unrestrained by any of the legal controls which were still operating in the latter years of National Socialism. The closest cooperation and mutual assistance was the policy prescribed for Gestapo and security service.

The detective force, finally, was charged primarily with the remaining police work involving t criminal offenses. Its character had been gradually transformed in accordance with the policy of the regime by the requirement of Party membership 'and Elite Guard qualifications (1938) as prerequisites for recruitment, even though it still contained a substantial quota of its older, trained personnel. It was required to work in close collaboration with both Gestapo and security service.

These police organizations constituted the hard core of the regime's control mechanism. It was reinforced by further protective layers, with the Party's own machinery as an important control device in its own right.

The more traditional elements of legal control had been similarly harnessed and transformed. The ordinary criminal courts, essentially deprived of genuine independence, were put under increasing pressure. Procedural safeguards had been undone and progressively severe sentences were demanded, especially during the war, by the Ministry of Justice. (See the Minister's report as quoted in the preceding chapter.) Moreover, virtually all criminal cases, involving major or political offenses, were withdrawn from their jurisdiction and placed in the hands either of the special courts (Sondergerichte) which were composed of picked judges, or of the people's tribunal (Volksgericht), essentially an instrumentality of Party terror, which handled the most important offenses, such as treason in the flexible Nazi sense of the word.

In spite of this elaborate apparatus of repression and control, opposition to the regime continued, and there is reason to believe that it actually increased during the period of intensified terror. The rise in Gestapo arrests, reported in chapter 6, part II, is one indication of growing official concern with oppositional activity.

Factors Favorable to Successful Control

A number of conditions were responsible for the remarkable effectiveness of the control system.

In the first place, little was left to chance. The control machinery ultimately became as comprehensive as the activities of the community itself, so that little could escape its network. The old theory of the police as an agency of safety and prevention had been superseded by a new one which exalted the police as the political shocktroops and advance guard of an embattled nation. Although this change had been initiated some years before the outbreak of the war, it was emphasized by wartime regulations, such as the one issued late in 1943, which required all police organizations to put themselves directly at the disposal of Party leaders in their battle against recalcitrant and subversive elements.

This organization was not only elaborately manned with full-time personnel; it also succeeded in drawing upon a large number of unpaid or partially remunerated volunteer informants, both in the case of the Gestupo and of the security service, not to mention the Party as such. Until fairly late, it succeeded in using Party members and even average non-Party folk as "patriotic" agents who might be convinced that they were fulfilling some patriotic duty by offering their services, or who might expect substantial advantages in return. Besides, there were large numbers of professionals and professional organizations whose specialized knowledge was tapped, especially by the security service, for all kinds of information.

This elaborate machinery of control and compulsion was surrounded by a fringe of terror, symbolized by Gestapo, Elite Guards and the concentration camp. Although, only very few actually knew much about the conditions in concentration camps, rumors and half-knowledge provided a powerful deterrent.

Those who did come out of concentration camps had their mouths most effectively sealed. They very rarely told of their experiences, partly because of the fear of retaliation against themselves, partly because their own next-of-kin might be penalized. In consequence, a stark fear of the unknown or partly known, increased by the observable severity of official punishment meted out to political offenders, enhanced and perhaps even exaggerated the demonstrable power of the control groups, and tended to cover up real gaps in their control.

Those who had the strength of conviction willingly to take upon themselves, and if need be upon their families and friends, the potential consequences of anti-Nazi activity, not only had to face the risk of cruel punishment; they also had to assume that their sacrifice, which was to further a cause they believed in, would remain unknown.

Moreover, it was no longer possible, as it had been in the early years of the regime, to expect any remedial or restraining action against these agencies through legal procedures. Political police operations had long been explicitly exempted from court control. Court decisions favorable to political suspects could be disregarded by the Gestapo. And the criminal courts themselves had been increasingly, although not completely, pervaded with the spirit of the regime.

There was a final buttress. The propaganda machine managed to persuade the man in the street for a long time that, for better or for worse, he was "in for it," because the world was bent on destroying Germany and the Germans; that, whether or not he liked the Nazis, he was like a man in a leaky boat in midstream who, if he wanted to survive, had to row regardless of his feelings about some of his fellow-passengers. Once the war was well under way, the Germans. who enjoyed any advantage of position or economic status had a vested interest in German victory. It is quite evident that such considerations would deter a good many people from taking active steps against the Nazis, even among those who were willing to brave the consequences.

Factors Impairing Successful Control

There were, on the other hand, certain features of the system which tended to diminish its effectiveness in the course of the war. This immense and complicated machinery had actually outgrown the limits of efficiency. Anyone who has plowed his way through the paper remnants of this vast bureaucratic machine, will appreciate that it was beginning to burst at the seams. As with any overgrown organization, this resulted in two major shortcomings: there was imperfect coordination among its parts (the several police cadres, the Party, the courts, and other government agencies); and, especially towards the end, there was a manifest shortage of skilled personnel, considering the scope of the customary operations. We have many statements from the security service and Gestapo representatives about the growing manpower shortage in their ranks.

This lack of coordination was enhanced by the fact that there was a good deal of rivalry and even conflict among various control services, between the security service and the Gestapo, in particular, and also between both of these and the old-line detective force. Similar tensions existed, at least in some localities (e. g., Munich) between representatives of the administration of justice and the Party police agencies. Basically this was due to a natural conflict between old-line career officials, trained to use some measure of objectivity, and the new men, frequently less well-trained and certainly differently indoctrinated.

Quietly working within the confines of the machine, there were elements opposing National Socialism. As far as the police were concerned, it is clear that the detective force contained to the end substantial numbers of the old supporters of the Republic, who had mainly belonged to the Social Democratic Party. Such men might go as far as to arrange escapes for intended victims of the Gestapo by entering their names in the missing persons file, after having warned them of an impending arrest. It was known to "insiders" that there were quite active "cells" of this nature in government agencies, such as the Ministry of the Interior, the Ministry of Justice, the Ministry of Labor, and certain courts and prosecutors' offices, not to mention local Government services. Such persons could, and sometimes did, effectively sabotage Nazi law enforcement.

The growth of disaffection in the masses of the population, which our evidence reveals, produced further obstacles. It lessened the numbers and enthusiasm of informers while, at the same time, it increased the task of policing and controlling which were, by 1943, beginning to suffer from the manpower shortage.

Finally, there were disruptions of the control services caused by the air raids. Characteristic of this was the evacuation from Berlin to the provinces of many divisions of the National Security Office itself, the interruptions of communications, the destruction of records, and even cases of personal corruption among key personnel which came to light under these circumstances.

Summary of Control Problem

The effectiveness of the Nazis' machinery of control and repression remained impressive to the end. It continued to function, despite a good many internal flaws which were responsible for the survival of a considerable number of enemies of the system. Partly because of its reputation for ruthless use of all the means at its disposal, it served as a formidable deterrent to every sort of opposition to the regime.

The Pattern of Subversion

The most striking exhibition of subversive behavior was the overt criticism, which ranged from simple complaint to outspoken denunciation. It was expressed by word of mouth, as well as in written form by the use of leaflets or anonymous letters. There were other forms of subversive behavior under the dictatorship which may be described as indirect. They comprised such actions as the spreading of political jokes, of gossip and rumors, and listening to enemy broadcasts. All of them betray attitudes of nonconformity and protest, and were outlawed by the Nazi Government.

Throughout its existence the Nazi dictatorship had to contend with a good deal of this sort of behavior on the part of groups and individuals among its citizenry. Such currents antedated the war, and anyone who can read between the lines may discover subversive thought in the literature published in the Third Reich during this period. The average man might direct scornful or angry. words at the regime or its leaders. Complaining is commonplace in all political climates, whenever there are misfortunes or reverses, but it is most significant under a dictatorship. In 1938, for instance, a part of the German public was agitated about the open persecutions of the Jews. After the beginning of the war, it was the reverses in the east and later the air war which engendered popular resentment.

Vocal Criticisms Following Air Raids

As air raids began to bear down on the population, it was the discrepancy between observed fact and government propaganda which lent itself to criticism. In September 1943, for instance, it was reported from Dortmund that:

The official Army bulletin was long and critically discussed when, after the daylight raid on Bochum, it was stated that "enemy air units flew in under cloud cover." There was much comment, for the enemy raiders were widely visible. Very few clouds could be noticed.

The angry air-raid victims did not relish being fooled, just because the Government still sought to cover up the ineffectiveness of its fighter protection. In 1944 we hear reports from Munich (morale report, Munich, to Berlin, undated; shortly after the 20 March 1944 attack on Augsburg).:

The increase of air raids leads to expressions like the following: "Now we finally get reprisals (a reference to the much tonted

V-weapons) but unfortunately they come from the other side. It is frequently claimed that it is possible for the enemy to figure out when Germany's war production will cease to menace him * * *. One can hardly talk of reprisal without eliciting a pitying smile * * *. However, at heart many still believe in it" * * * (They say) "If we didn't have this Government we would have had peace long ago * * *. With the tenacity of our leadership an end of the war can only be hoped for after Germany's complete annihilation." Members of the intelligentsia state that "it was a matter of course to be a German, but not quite understandable that one could still be a National Socialist."

The same report emphasizes that the air war "proves as hitherto the crux in the molding of morale" and ends significantly:

Comment on the often quoted poet's word: . "Germany must live even if we have to die." The question is often raised: who in this case will represent the surviving Germany? Will it be the people in the bomb-proof shelters?

Written Criticism

Much the same pattern can be traced in the written expressions of overt criticism. While chain letters, anonymous letters, inscriptions and leaflets had been well known, the growing impact of air raids began visibly to affect the minds of the anonymous scribes, especially in the exposed urban centres.

There are striking examples of such communications in the spring of 1943 which originated in the Rhine and Ruhr industrial area. A leaflet pasted under the mail box in the Krefeld Post Office contained this appeal:

People awake!

Down with Hitler, Goering, Goebbels, Ley, Rosenberg, Himmler, etc.

These swine who have plunged us into misery; every night these raids.

Do we need to stand for that?

In April leaflets were found in Krefeld which read:

No more of these raids, unite, arise, Down with the Hitler murderers,

No more of these raids! The people arise! Down with the murderers, down with Hitler!

(Gestapo Regional Headquarters, Duesseldorf. 30 April 1943)

It is worth noting that, at the same time, German authorities recorded with growing alarm that fewer people were disposed to give up Allied leaflets to the proper German control agencies, another indication of the waning confidence in the ruling powers.

Political Jokes

Indirect criticism of all kinds thrives in a dictatorial environment. Like anonymity, indirection helps to conceal the originator. The most widely used and perhaps the most effective form which subversive conduct of this type assumed in Germany was the political joke. The Nazi bosses and their devoted hangers-on could be ridiculed with relative impunity; jokes could expose wellknown weaknesses, vices, blunders and foibles; and the procedures of tyranny itself could be held up to public ridicule. Earlier in the war, some of these political jokes were still rather goodnatured, although even in the early years of the regime there had always been an element of biting and aggressive criticism in them. Food problems seemed to become an urgent matter after 1939, coupled already with delight in ridiculing those responsible. As the war proceeded, the political joke began to flay lies and deceptions as purveyed in Nazi news and propaganda.

According to a Rhineland story, a man in Cologne brought his radio to confession in the Cologne Cathedral because it had been lying so much lately.

As the effect of the raids made itself felt, older topics of political witticism were replaced by current subjects.

> In one of these anecdotes, it is related how Hitler and Goering fly over Bochum to survey bomb damage from the air. Goering points out the ruins to Hitler and comments: "Wouldn't they be pleased, Adolph, if we dropped them a sackful of meat and fat coupons? The pilot, a Bochum native, on hearing this turns around and says: "You have no idea how happy the Bochumers would be if

1 dropped you two!" (morale report, Dortmund, 28 Sept. 1942).

In 1943 a Rhineland political wit proposed the desperate riddle:

What is it? It is naked, stands on a meadow and carries a bank savings-book under the arm? Answer: The German of 1946.

More and more those responsible for Germany's downfall were the butt of sarcastic comment. As one official report had it,

The most vulgar jokes are circulated which particularly assign to the leader, in the most indecent manner, sole responsibility for the war (Party morale report, Gau Schwaben, 20 June 1943).

The air-raid shelters had by this time become the natural distribution centers for such manifestations of the public mind. In effect the political joke, always a fruitful medium, showed the impact of the air raids in several respects. It crystallized criticism of the Party and its bosses and fixed on them responsibility for the public suffering. It reflected disappointment at the failure of the weapons of defense and attack, and the weariness of a deceived people. As in the case of some other types of subversion, its spread was advanced by the peculiar dislocations of the air-raid situation, such as shelters and evacuation.

Rumors

Rumors are equally significant, as they reflect the dissatisfaction, incredulity, fears and hopes of the people. Precisely because the rumors were often sharply at odds with official news and contentions, the Nazi authorities regarded them more and more as danger signs, as the war went on. Germany had become a great rumor factory. The lack of news about tangible facts suggested to the adherents of the regime that things were going well, while the skeptics invariably began to think and believe the worst.

This split results in a general readiness to believe more and more rumors as they arise, and to spread them. Especially letters from the front, taken as news substitutes * * * form a source of absurd speculation * ** *. It also seems that foreign radio news is being listened to increasingly (morale report, security service, Bielefeld, 6 Aug. 1941).

The lack of authentic news on the one hand, and the foreign radio offerings on the other, produced a nation of rumor-mongerers.

If one considers the character of rumors during the periods of strategic bombing, it is clear that this experience had become one of the dominant facts in the life of the community. The rumors concerning air raids involved such matters as the circulating of exaggerated casualty figmes after raids, alleged forecasts of new air attacks (often based on Allied leaflets supposedly found elsewhere) and, increasingly, reports about conflict and defection among the political leaders. By 1944 one Party report summed it up by saying:

When the air power of our enemies is broken (and this will be the case in the near future), even the weakest German will regain courage. Rumor-mongering still * * * paralizes the German people's will to resist and must be fought * * *. The shelters are the main dissemination places (morale report, 12 Dec. 1944, Ludwigshafen).

Black Listening

Listening to foreign broadcasts had been prohibited by special legislation in 1989 and, as the war continued, enforcement was increasingly emphasized. Illicit listening, like rumors, increased with the intensification of strategic bombing.¹ Any shocking or striking event induced Germans to push open another window which would let'in views and opinions of the outside world. In a small way, such incidents as the Hess flight, and then more urgently the eastern reverses and, finally, the air raids, made people more susceptible . to news and views of non-German origin. Despite all earlier promises, the skies had been darkened. by enemy aircraft after 1942. Not only did explanations become increasingly implausible, but people were also anxious to learn what precisely had happened in other parts of Germany. And again the discrepancies between official assertions and observable facts, coupled with the worry over friends and relatives, drove people more and more to black listening. One competent Nazi authority has stated that after D-day it was the rule rather than the exception to listen to enemy broadcasts. and we have many indications that the air raids contributed heavily to this inclination.

Bombing as a Cause of Subversive Behavior

There still remains the question of the extent to which strategic bombing induced the growth of all these subversive activities. There are three main sources of evidence:

1. Nazi control agencies, such as the security service, the Gestapo and the Party itself, emphasized on various occasions that air raids had an important and visible effect on subversive behavior.

2. Nazi control agencies not only displayed increasing alarm, but sought to stiffen their countermeasures in various ways, in order to stem the rising tide of subversion. In this connection we have explicit references to the air-raid problem.

3. Since the principal types of subversive behavior constituted criminal offenses under Nazi law, an examination of relevant criminal statistics should be revealing. As indicated in chapter 6 of this part of volume I, information is scanty because of the widespread destruction of such materials. Moreover, Nazi legal authorities agreed that there was growing reluctance on the part of the population to bring such offenders to book. Figures available for such urban centers as Hamburg, Bremen, and Luebeck suggest that where there was fertile political ground the frequency of subversive conduct increased during periods of heavy air raids. The available samples, however, demonstrate no more than that strategic bombing in the end was one major element in the deteriorating war situation which stimulated subversive behavior. The lack of a conclusive statistical correlation between weight of bombs dropped and number of arrests is due to the existence of many unknown and unmeasured factors, among which the public's aid in law enforcement was possibly the most important.

4. An analysis of data gathered from the background studies ² of the sample cities reveals a relation between the amount of bombing and subversive activity, as expressed by the rank correlation of 0.59. As in the case of disruption, no satisfactory conclusion can be derived from such data alone because larger cities, the preferred bombing targets, may be assumed to have been a more fertile ground for subversion than other areas, regardless of strategic bombing.

⁴ See vol. I, pt. II, ch. 4 for report on the extent of "Black" Listening.

^{*} See ch. I, vol. II for details.

The Role of the Church 3

Political subversion included much beyond the average man's spontaneous reaction to misfortune and calamity. There were also organized forces to encourage and promote such activities, aided by the weight of their authority.

Important among them were the churches, which constituted a well-entrenched force of resistance to the encroachments of the Nazi state. Available information indicates that this was especially true of the Catholic Church and, among the far less homogeneous elements of Protestantism, of the Confessional Church. This was true in spite of the fact that on both sides there had been in the beginning some temporizing with National Socialism. Even before 1939 many German Christians had become convinced that no reconciliation was possible between Nazism and the church. Hundreds of clergymen, both Catholic and Protestant, were already in prisons and concentration camps.

The Clerical Denunciation

From church officials there issued a small but persistent stream of acts of defiance which kept the authorities on edge and made the population increasingly aware of the conflict between Nazi state and church. These activities included "subversive" religious instruction by clergy in public schools, the illicit continuing of religious youth organizations officially dissolved, pastoral letters boldly criticizing the regime and occasional outspoken sermons.

A notable example was the pastoral letter of Roman Catholic bishops (26 June 1941) which registered a sharp protest against the difficulties which authorities put in the way of the work of the church, especially with regard to its educational and charitable activities. They said that it was unbelievable that such difficulties were made at a time when the full solidarity of the people should be preserved and not be disturbed by a violation of the religious feelings of a large part of the population. This letter caused great agitation among the people, and such utterances as these were reported from various parts of the Reich:

At long last the church does not take everything-lying down.

- It was high time that these things were being said.
- Against our bishops even Adolph Hitler cannot stand up.

Party and State may say and do what they want, we stand by our church.

We hope that our men out at the front will hear how our religion is being dealt with here at home. It is high time that the war comes to an end.

I am going to get out of the Party.

(Report of National Security Office, 21 July 1941.)

. Rank and File Misgivings

As the air war developed, the reactions of the churches tended in two directions; there was sor-. row and sometimes resentment at what was regarded as the unwarranted destruction by bombing of religious and cultural objects; but much more strongly there was the growingly articulate. rejection of the unspeakable leadership which had by its own misdeeds caused Germany's destruc- . tion. Of course there were, both among Catholics and Protestants, large numbers of laymen who, even if their loyalty to the Party was gone, still wanted Germany to win. On the other hand there were those, and doubtless their numbers ran into millions, who were painfully aware of the conflict between their church and this regime. Some of them regarded the possibility of a German victory with uneasiness, because they feared that hard days would then begin for their church.

Religious Opposition, Facilitated by Bombing

There were, both among the clergy and the laity of the churches, groups who worked with varying degrees of determination and aggressiveness against the established authorities. The air raids, as the most devastating events in the life of the community, afforded them a striking opportunity to discredit the Nazi Party and all it stood for, to deepen dissatisfaction, and to create and increase all manifestations of defeatism.

Thus rumors were spread through religious circles which had the purpose of diminishing confidence in and respect for the Nazi leaders. It was said, for example, that the regional Party chief of Munster had fled from the city while the Bishop remained bravely on his post (security service report, Bielefeld, 22 July 1941).

³See.ch. 4, pt. I, vol. I and ch. 1, vol. II for evidence of the relation between war-time morale and church membership and religious activity.

Another report, referring to such runnors, closes with the significant statement:

It must be pointed out that these statements by leading Catholic laymen are handed on to other lay-workers and through them find their way into the population. The purpose of this whispering campaign is without doubt to undermine systematically the confidence of the German people in the political leadership (security service report, 1 Feb. 1943).

The documents leave no doubt that Nazi authorities were deeply concerned with the effects of air raids on the morale of church people. Yet repressive efforts were somewhat hampered by the wartime truce between church and state. The lower clergy would and often did suffer, but the most eminent spokesmen of the churches no Nazi dared to touch.

A much smaller number actually hoped and prayed for a German defeat because they were convinced that a German victory would mean the triumph of a new paganism. Such people might ask:

Who is worse, he who tears religion out of the hearts of children or he who only destroys churches made of stone? (Anonymous postcard ascribed to Catholic circles, sécurity service report, Duesseldorf, 27 July 1943.)

Others expressed openly the fear that after the war the final liquidation of the church would be attempted by the Nazis:

Quite generally the opinion is held that with the end of the war, the State will make an ultimate assault upon the churches. Especially among the rural population this idea is strongly held (National Security Office, 5 June 1942).

This widespread feeling induced in many people a growing complacency toward the German war effort:

This propagandistic activity of the Catholic Church has led to a certain indifference of a large part of the Catholic population with regard to the war * * * (National Security Office report of 5 June 1942).

Some people went so far as to express the open wish that Germany might lose the war: This propaganda (of the Catholic Church) created in many people a hostile attitude toward the state. It even went so far that in Catholic circles the opinion was widespread that it would be better if Germany would lose the war, because then at least the church would be saved. (Report of National Security Office, 5 June 1942.)

Such antagonism was deepened among Catholics by the fact that those among them who had belonged to the old Centrist Party often continued to harbor the old political loyalties.

Organized Political Groups

Organized political opposition groups represented another primary source of difficulty for the Nazis. Despite the heavy hand of Nazi repression and intimidation, organized oppositional cells existed throughout Germany. Hardly any German city was found by our field investigators in which local inquiry failed to reveal evidence of the existence of one or more groups, varying of course in size; political tendency, courage and skill. This is all the more significant since it was the natural tendency of such groups to operate in the utmost secrecy and since, quite frequently, repressive measures were carried on by the authorities without any publicity, so that few beyond the circle of participants would learn about the elimination of certain active "enemies of the state."

For this reason, our principal direct sources of information, the testimony of surviving opposition members, the Nazis' official intelligence reports and our interrogations of Gestapo and Security Service officials, are combined to form an estimate of these efforts which is conservative because of the effectiveness of the wall of silence on both sides. This is true despite the fact that surviving opposition leaders have at times been tempted to exaggerate the scope of their own work.

Local Organization

Organized oppositional activities were normally confined, by necessity, to a local scale, because any attempt to establish wider contacts and group connections exposed members to prohibitive risks. The "cell" system was commonly used, whereby only one member of a group knew of the existence of another in a different group. The activities of these organized groups were devoted to anti-Nazi propaganda, to sabotage of the war effort, to opposition to the last-ditch recruiting efforts, such as the setting up of the home guard in 1944, and even, as in the case of the Munich Free Bavaria movement, to revolts timed to aid the final Allied push.

Reich-Wide Organizations

Despite all handicaps, however, there were efforts on a national scale. Certain groups of the Social Democratic Party and of the trade union movement had intermittently continued their activities underground after 1933. During the war period Nazi countermeasures made the survival of underground groups on a national scale increasingly difficult, although they were somehow maintained even then through liaison agents in a number of cities.

On the Left, the Communist Party was apparently more successful in maintaining continuous national and international connections than the adherents of the Social Democratic Party. According to our information, relations with Russia were maintained by German Communists, both through agents among Russian workers in Germany and through German Communist refugees sent in as agents from Switzerland. Contacts with the active Communist groups in the seaport cities of Hamburg and Bremen were established through Communist seamen employed on neutral ships. Ultimately, under the stimulus of the Moscowsponsored Free Germany Committee, a National Free Germany Committee (NKFD) was formed in May 1944 which was mainly a combination of Socialist and Communist elements. Branches of the committee had been established before occupation in a large number of German cities. The development of an over-all German Communist organization is further suggested by the fact that a National Committee of the German Communists sought and briefly made contact with the conspirators of 20 July 1944.

The most conspicuous single effort at national organization was spearheaded by a group of army officers. This was the organized movement which culminated in the plot against Hitler of 20 July 1944. While it constituted a merging of middle-of-the-road, Social Democratic and labor union groups with Army, right-wing and religious cells it was led by a Conservative, Dr. Carl Goerdeler, the former mayor of Leipzig. He worked in conjunction with cells of sympathizers throughout the country, with other political leaders, such as the Social Democrat Wilhelm Leusehner, and with the military group which was responsible for direct action.

Also associated with them was an important underground network of Social Democratic and trade union sympathizers, as well as the so-called Kreisau circle, in which Christian-Conservative noblemen, businessmen, Young Socialists, and representatives of the churches found a common ground in a program of peace and Christian socialism.

Among the military group men like Beck, Brauchitsch, Čanaris, and Witzleben set the tone. They were Conservatives who had been supplied, as early as 1938-39, with elaborate political programs by civilian collaborators.

Apparently it was largely due to disagreements on policy and to personal jealousies among the generals that the cooperation of these men, despite earlier plots, did not lead to a successful uprising at an earlier date.

The Effect of Bombing on Organized Opposition

What effect, if any, did the air campaign have on the development of these organized opposition groups and on the attitudes of the population towards them? The answer is far from simple, but may be summarized as follows.

1. There is evidence to suggest, from both opposition representatives and the Gestapo, that there was an increase of oppositional activity beginning in 1943. Yet an actual rallying to political organizations, unlike the "self-expression" manifested in acts of subversion, resulted from a more complex set of factors than bombing experience alone. There are definite indications that the increasing tempo of air raids in 1943 and 1944 had a direct bearing on the decisions by the "July 20" group to take action. One of Goerdeler's associates observed that "some military commanders have probably been strengthened by the air raids in their inclinations to renounce Hitler and bring about his fall" (interrogation of V. Dictze). One of the labor union leaders reports that it was after the beginning of the heavy raids on Berlin (Nov. 1943-Jan. 1944) that planning and preparations of the inner circle were definitely speeded up (Memorandum submitted by W. Maschke on the preparation for 20 July 1944.)

2. There is much evidence, especially from Communist and Social Democratic leaders, that air raids made the public more susceptible to their appeals. This increased responsiveness doubtless was due to the same causes which bred subversive conduct in general.

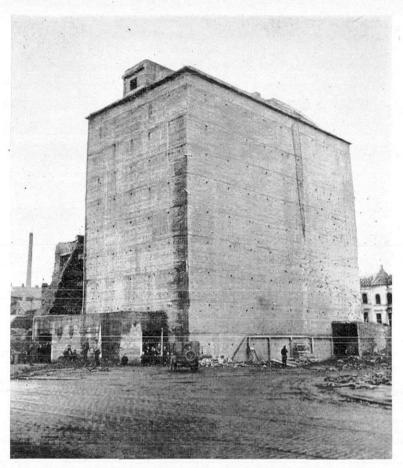
3. In the wake of physical and administrative disorders produced by the air raids, special opportunities for action were opened up. The systematic hiding of deserters among the ruins is a striking example. Industrial sabotage and tampering with Gestapo files likewise were greatly facilitated on such occasions.

4. Against these advantages, strategic bombing

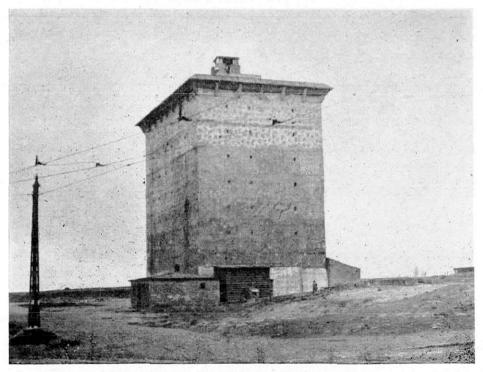
placed two major handicaps in the path of opposition activities:

(a) Opposition groups were hit, like every on. else, by the disruption and confusion of communication and transportation. There is evidence that this presented major problems in a good many delicate situations.

(b) Though the efficiency of both the Gestapo and of the average man was seriously curtailed by the exhausting pressure of air raids, so also was that of opposition workers. There was, in fact, a point where numbress and weariness reduced men to that stage where naked survival was the only thing which mattered.



5. Steel reinforced concrete bunker in Krefeld.



6. Multiple story air-raid shelter in Recklinghausen.

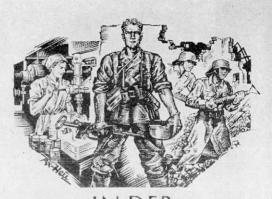


7. Germans escape to limestone cave to avoid bombing in Auermacher.



8. Returning evacuees. 105





IN DER SCHICKSALSSTUNDE UNSERES VOLKES HAT DIE HEIMAT DIE GLEICHE PAROLE WIE DIE FRONT: HARTE und GLAUBE



TÜCHTIGES SCHAFFEN das hält auf die Dauer kein Gegner aus.





10. Black market activities continue under the occupation.



11. German civilians loot railroad cars in search of food, April, 1945.



12. Inscription on ruins of Berlin house.

APPENDIX A.—THE CROSS-SECTION INTERVIEW STUDY

Major emphasis was placed upon interviews conducted with 3,711 German civilians in 34 communities, so selected as to represent the bombing experience of German towns in the American, British, and French zones of occupation.

The interviewing survey was carefully designed to elicit a maximum amount of information and a high degree of validity. The main techniques to accomplish these purposes follow.

I. Interviewing Method

The indirect interviewing method was used. This procedure represents the application of clinical methodology to problems of social psychology. The interviewer sits down with the respondent and encourages a free narrative story within the framework of the prescribed questions. Instead of cross-examination methods with specific questions limited to yes-no responses, the respondent is asked a broader type of question which he can answer in his own terms. Through a succession of such questions he is led by degree into the specific subjects about which information is desired.

This type of interviewing emphasizes rapport between the respondent and his interrogator, and calls for well-trained and skillful interviewers. For this task the morale division recruited a field force of professionally trained people, thoroughly familiar with the German language and culture, most of whom were outstanding social scientists or psychologists. In addition, selected G-2 interrogators were used after an intensive training session in a pilot study.

II. Experimental Design of Study

The experimental design of the study called for two forms of interview schedule. Form A was given to every third respondent who had been bombed. Schedule B, given to all unbombed people and to two out of three bombed individuals, did not inquire into bombing experience until the very end of the interview. There was an opportunity for spontaneous report about bombing to appear early in the schedule. But the indirection was devised to compare morale of unbombed and bombed people when they themselves did not know the purpose of the interview. This

procedure had the advantage, moreover, of vitiating inaccuracies in the report of respondents. The analysis is not concerned with the absolute level of morale but with relative morale as it corresponds to degrees of bombing exposure. It may be, for example, that the absolute morale level of people who now report war weariness is too high since they would like Americans to believe that they were not highly identified with the war effort. But the important point is that there are significant differences, between the bombed and unbombed areas, in the number of people who say they did not want to go on with the war. These relative differences in morale are thus a function of bombing, since the respondents in schedule B did not know why they were being questioned.

III. The Interview Schedules

The English translations of the two forms of the interview schedules follow. Schedule A was given to every third respondent who had been bombed. It asks information about bombing more directly than does schedule B, which was given to two out of three bombed respondents and to all unbombed respondents.

Schedule A

- 1. How is it going with you now under the occupation?
- 2. Is is better or worse than you had expected?
- 3. What did you really expect?
- 4. How do you think you and your family will fare in the next 3 or 4 years?
- 5. How do you think you and your family would have fared in the next 3 or 4 years if Germany had in the end won the war?
- 6. When was your city bombed for the very first time?
- 7. Did the first air raid surprise you, or had you expected it?
- 8. Did you believe at that time that there would be more raids on your town after this first raid, or did you think that your town would now be left alone?
- 9. (If further raids expected) What did you think then that the future raids would be like?
- 10. When did you first experienced a big raid?

- 11. How did you fare at that time? What were your experiences?
- 12. (If not covered) What did you do?
- 13. What were your feelings then, and did you react to it?
- 14. How many big raids did you experience?
- 15. Altogether, how many air raids did you experience?
- 16. Were you more and more afraid as the raids continued, or did you get used to them?
- 17. Did these repeated raids have any other effect on your state of mind?
- 18. Which of the following bombs did you find most terrible: Incendiaries, explosives, phosphorous, air mines?
- 19. Which were more terrible, day or night raids?
- 20. Did you blame the Allies for the air raids?
- 21. In your opinion, what do you think the Allies wanted to accomplish by these raids?
- 22. Do you think that this city was bombed more than was necessary for military purposes?
- 23. Do you think that the people here suffered more than those in other cities in Germany?
- 24. Did the newspapers and the radio correctly describe the general state of mind in the city after each air raid? (If no, then): Give me an example.
- 25. In what way was your normal way of life most upset by the air raids?
- 26. How were your family relationships affected by the raids?
- 27. Was your work affected in any way by the air raids?
- 28. How many workdays were you absent from your work in 1944?
- 29. Why were you absent?
- 30. How much free time did you take on your own?
- 31. Did you ever have to use any kind of subterfuge in order to get some free time?
- 32. (If subterfuge used) How many free days did you get by such subterfuge?

If respondent took no time off either on his own or through subterfuge ask 33 and 34:

- 33. How does it happen that you didn't take more free time for yourself?
- 34. Did you ever want to?
- 35. In your opinion, how well was your home town protected against air raids?

- 36. Was everything possible done?
- 37. (If dissatisfaction expressed) Who was to blame for it?
- 38. How good were the special measures and welfare services after the raids?
- 39. Was everything possible done?
- 40. (If dissatisfaction expressed) Who was to blame for it?
- 41. Did you people here in.....help each other after the raids, or did they only help themselves?
- 42. Did your opinions on the war change when the air raids didn't stop?
- 43. Did you ever come to a point because of the air raids where you simply didn't want to go on with the war?
- 44. What did you think at that time of "unconditional surrender?"
- 45. What, in your opinion, was the chief cause of the war?

Additional Questions: Evacuation

If respondent falls into A, B, or C, ask the appropriate questions:

- A. Respondent evacuated from one community to another because of bombing or the threat of it.
- B. Respondent's *family* evacuated because of bombing or the threat of it, but respondent remained behind.
- C. Respondent and family did not evacuate, but lived in community to which evacuees came.

GROUP A.

- 51. Did you leave.....voluntarily, or were you forced to go away? Please explain further.
 - 52. Were official arrangements made for your trip and living facilities, or did you have to arrange them yourself?
 - 53. Did your whole family that lived with you go with you, or did some of your family stay behind?
 - 54. (If some stayed behind) Who? Why?
 - 55. (If some stayed behind) Were you able to keep in touch regularly with the members of your family that were left behind?
 - 56. In the main, how were you housed in the place to which you went?
 - 57. Could you explain to me in a few words how you reacted to the evacuation?

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GROUP B

- 61. Did your family leave.....voluntarily, or were they forced to go away? Please explain further.
- 62. Were official arrangements made for the trip and living facilities, or did you have to arrange them yourself?
- 63. Were you able to keep in touch regularly with the members of your family?
- 64. In the main, how were they housed in the place to which they went?
- 65. Could you explain to me in a few words how your family reacted to the evacuation?

GROUP C

- 71. Were there many evacuees or only a few?
- 72. Did you lodge any evacuated people?
- 73. (If yes to 72) Why did they live with you particularly?
- 74. (If yes to 72) How did it work out?
- 75. In general, what kind of people came to this community?
- 76. How well did the newcomers fit into their new surroundings?

Schedule B

- 1. How is it going with you now under the occupation?
- 2. Is it better or worse than you had expected?
- 3. What did you really expect?
- 4. How do you think you and your family will fare in the next 3 or 4 years?
- 5. How do you think you and your family would have fared in the next 3 or 4 years, if Germany had in the end won the war?
- 6. What do you think will happen to prices in the next few years?
- 7. If Germany had won the war, what do you think would have happened to prices?
- 8. What, in your opinion, is the chief reason that Germany lost the war?
- 9. What first brought you to the belief that Germany would lose the war?
- 10. As the war continued, what other influences strengthened your belief that Germany would lose the war?
- 11. Was your war leadership as good as you had expected?
- 12. Is that your opinion for both the political and the military leadership?

- 13. How did you think about this shortly after the beginning of the war?
- 14. (If changed) Why did you change your opinion about it?
- 15. During the war, did you believe that your war leaders wanted what was best for you , or not?
- 16. How well handled were the problems which the war brought here at home?
- 17. Do you think that you, personally, got along worse during the war than other people?
- 18. How did people of your circumstances get along in comparison with other people?
- 19. At the beginning of the war, did you expect that your life would be completely upset, or did you think that you yourself would not be affected by the war?
- 20. What was it that was hardest for the German civilian population during the war?
- 21. During the last year did you reflect much on the state of the war, or didn't you have time for that?
- 22. (If reflected) What did you think about?
- 23. Did you at any time during the war come to a point where you simply did not want to go on with the war?
- 24. What brought you to this point?
- 25. What did you think at that time of "unconditional surrender?"
- 26. How many workdays were you absent from your work in'1944?
- 27. Why were you absent?
- 28. How much free time did you take on your own?
- 29. Did you ever have to use any kind of subterfuge in order to get some free time?
- 30. (If subterfuge used) How many free days did you get by such subterfuge?

If respondent took no time off either on his own or through subterfuge, ask 31 and 32:

- 31. How does it happen that you didn't take more free time for yourself?
- 32. Did you ever want to?
- 33. What were your experiences with air raids?
- 34. During the war did you expect that you in this immediate vicinity would be exposed to air raids, or did you think that you would be spared?
- 35. Did the news of air-raid damage in other cities strengthen or weaken your will to see the war through?

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- 36. Did you blame the Allies for the air raids?
- 37. In your opinion, what did the Allies want to accomplish with these raids?
- 38. During the war were you uneasy that the German armament industry would be critically damaged by the air raids or did you think that the armament industry was safe?
- 39. What did you think of the V-weapons when they were first used?
- 40. Did you ever listen to Allied broadcasts?
- 41. When did you first begin to listen?
- 42. What programs did you listen to?

Additional Questions: Evacuation

Same additional questions on evacuation as under schedule A.

IV. Examples of Interviews

The two following interviews are presented to show the nature of the material obtained in the cross-sectional interviewing survey. They are not selected as necessarily typical of any specific groups in the German population.

Interview No. 51521, Schedule A

This interview was conducted in Detmold, Germany, on 27 July 1945 with a housewife, 25 years of age, who had left her home in Duisburg on 28 October 1944 because of the air raids. She brought her infant son with her and left her parents, with whom she and her married sister had been living, in Duisburg. Her husband, a telegrapher by occupation, was in the Army. Before her baby came she had worked in the kitchen at the Thyssen Steel Works until May 1944. She is of Protestant faith and has had grammar school education. The air raids had damaged the rented home of her parents, but there had been no casualties in her immediate family. She had suffered some loss of personal property for which she claimed but did not receive indemnity. She and her parents had suffered through bombing severe deprivation of gas, water, and electric services, of sanitary facilities, and of commodities other than food. In addition, the air raids and the alerts had in her own case caused severe loss of sleep. This information was obtained from the factual questions at the end of the interview. The interview itself follows.

Question 1. How is it going with you now under the occupation?

I am very much surprised that we have been so well handled. I thought that because the Jews had been so badly treated we would have to pay doubly. It has however gone very well. It is much better than before the occupation. There are no more fears of bombing attacks. Yesterday my sister and I were out in the fields picking berries. Some planes flew over and we remarked that it was so nice not to have to fear that they would attack us.

Question 2. Is it better or worse than you had expected?

Better. I had great anxiety when I saw the first Americans who came in here. Although neither I nor any of my family was ever a Nazi, I fled out of the city to a village. I did not think that' we who were not Nazis would be punished, but I was afraid nevertheless. I thought that the Nazis would be punished. I thought also that there would be great changes in relation to money, food and so on. Things have gone on in those matters just the same, however. Some people thought that we would have plenty to eat and no more rationing when the Americans came, but that was foolish.

Question 3. What did you really expect?

Answered in question 2.

Question 4. How do you think you and your family will fare in the next 3 or 4 years?

I hope that things will go better for us. I am here in Detmold with my 11 months' old baby. My sister, who also has a young child, is here, as well as my mother. My husband was a prisoner of war but he has been released and now has his old job with the Telegraph Bauamt in Duisburg. He will be able to keep this work. I hope that soon we will be able to get a place to live in Duisburg. At present we have no place to live and no furniture.

Question 5. How do you think you and your family would have fared in the next 3 or 4 years, if Germany had in the end won the war?

It would not have been better if Germany had won the war. We would have had to work hard to build the cities again and there would have been no freedom. Everything was done by force and that would have continued.

Question 6. When was your city bombed for the very first time?

I can't exactly say when Duisburg received the first bombs. The city is near the border and was one of the first places to be bombed. I think it was in May 1940. There were just a few bombs dropped in those early days. We would not have noticed such bombings later.

Question 7. Did the first air raid surprise you, or had you expected it?

I can't say. We were very curious and stood outside to look at the planes. I would say that we were surprised.

`Question 8. Did you believe at that time that there would be more raids on your town after this first raid, or did you think that your town would now be left alone?

We always thought that more would come.

Question 9. (If further raids expected) What did you think then that the future raids would be like?

The bombings were a new experience, and we did not know what to think about what they would be like in the future.

Question 10. When did you first experience a big raid?

That was in October 1944. There were attacks throughout 2 days, the fourteenth and the fifteenth.

Question 11. How did you fare at that time? What were your experiences?

On the fourteenth we had an early alarm about 6 a. m. but no planes came. I stayed up and did my housework. At 9 a. m. a preliminary alarm came and then a full alarm almost immediately thereafter. My baby, who was only a few weeks old, was in his carriage. I snatched him out and rushed to the cellar. The other people in the house were also in the cellar and there was much crying and praying because almost immediately large bombs began to fall directly on our section of the city. The house shook so that the men had to hold the timbers that propped up the walls and floor above to keep them from falling. We opened holes in the walls into the next cellars and called out to see if the people there were alive. People were crying and praying. They said that we had to thank our Fuehrer for this. The Party leaders had their safe bunkers and most of them were in Berlin. We usually went to bunkers, but this time the attack came too quickly.

After the attack was over, we came out. The doors and windows in our house were broken. There was much destruction around us, particularly in the Thyssen Works just opposite us. A great many large bombs had been dropped.

That night we took turns keeping watch, listening for the alarms across the Rhine. The alarm came about 2 p. m., but it was too late to go to the bunker. We went to the cellar, where again there was a fearful scene of crying and praying. After about 15 or 20 minutes of bombing there was a pause. My sister and I put our babies into their carriages and with my father ran to the bunker. Many phosphorous bombs were dropped, and everywhere houses were in flames. We hurried until we were completely exhausted. All the while my father was shouting to us to hurry. Finally, I took my baby out of the carriage and ran on with him in my arms. By the time we reached the bunker bombs were falling on all sides. I was completely exhausted and said I could never go through this again. We stayed all this night in the bunker. After we went home there were still continual alarms. We did not have time to wash our children or eat. All that day we were running from the house to the bunker and from the bunker to, the house. The night that followed we stayed all the night in the bunker and the babies got some sleep. Father remained at

home and he brought us something to eat. About 4 a. m. we went home. Our house was damaged and there was no water running, but we brought some from a pump and washed ourselves and the children. Then we got some soap from the N. S. V. and for 8 days thereafter we got food in this way. Our flat was badly damaged but we could live there.

Question 12. (If not covered) What did you do?

See question 11.

Question 13. What were your feelings then, and how did you react to it?

We were sure every minute that we would be killed. Even after the attack was over, we still had the feeling that we would be killed in the next attack.

Question 14. How many big raids did you experience?

The attack that I have described was the biggest that occurred in Duisburg. No other attack affected the whole city as this one did. The other attacks affected only parts of the city.

Question 15. Altogether, how many air raids did you experience?

There were probably from 150 to 200 attacks. The alarms came almost continuously.

Question 16. Were you more and more afraid as the raids continued, or did you get used to them?

I became somewhat accustomed to them but was always afraid. When the smaller attacks came, it was not so bad, but the large attacks produce *always* more fear.

Question 17. Did these repeated raids have any other effect on your state of mind?

I always thought I would surely be killed. I lost the desire to live. The smut and dirt covered everything and it was impossible to keep anything clean. There was always so much work to do. Life was no longer beautiful. Question 18. Which of the following bombs did you find most terrible: Incendiaries, explosives, phosphorous, air mines?

The high-explosive bombs. They destroyed everything right down to the cellar. The air mines were bad, too. In fact, I found all of them terrible.

Question 19. Which were more terrible, day or night raids?

I think that the day and night bombings were about the same. Take the fourteenth and fifteenth of October, for instance. I can't say that one was any worse than the other. I think they were about the same.

Question 20. Did you blame the Allies for the air raids?

Really no. I heard the English radio and knew that we had bombed cities. Goebbels made a great speech in which he challenged the Allies, saying that the German people were strong and could take the bombings. The leaders were sitting safe in Berlin, but we had no flak and poor bunkers.

Question 21. In your opinion, what do you think the Allies wanted to accomplish by these raids?

The Allies wanted to wear the people out and make them rebel and in this way end the war. If they had not bombed the cities, the war might have lasted much longer and more men would have been killed at the front.

Question 22. Do you think that this city was bombed more than was necessary for military purposes?

The attack of October 14-15, 1944, certainly destroyed much of the industry but many of the attacks were not at all confined to industry. In that sense, more bombing was done than was necessary for military objectives.

Question 23. Do you think that the people here suffered more than those in other cities in Germany?

Many other cities such as Essen have had

as much to bear as Duisburg. They also were under continual attacks from the beginning. Many other cities did not have any attacks at first and were bombed seriously only in the last year of the war. In Duisburg the attacks were continual. We often said, why don't they go somewhere else and leave us alone.

Question 24. Did the newspapers and the radio correctly describe the general state of mind in the city after each air raid? (If no, then): Give me an example.

No. They said that the people were not much affected, as if we lived in Berlin, which wasn't attacked much at first. The people couldn't say much about how they felt, but in the bunkers they cried out against the Party leaders.

Question 25. In what way was your normal way of life most upset by the air raids?

I got no sleep or rest and had to wear my clothes day and night. Half of the time I spent in the cellar or bunker.

Question 26. How were your family relationships affected by the raids?

My sister and I live with our parents. Our husbands are in the Army and each of us had small babies. We were very crowded and sometimes we became much irritated with each other. My sister and I came to Detmold at the last of October in 1944. We have lived here in one room and it is very crowded.

Question 27. Was your work affected in any way by the air raids?

I had a small child. It was very difficult to keep it clean and to give it the proper food. The milk soured in the bunker and my child was often sick.

Question 28. How many work days were you absent from your work in 1944?

I worked in the kitchen at the Thyssen Works until the last of May 1944. Then I stopped because I was going to have a baby. Up to that time I had missed about 6 weeks of work. Question 29. Why were you absent?

I had three weeks vacation. Another time I was sick for 3 weeks. Then I missed about 7 or 8 days altogether because I stayed at ' home after the bombing attacks.

Question 30. How much free time did you take on your own?

None.

Question 31. Did you ever have to use any kind of subterfuge in order to get some free time?

No. I had a good overseer who let me stay away from work when it was necessary.

Question 32. (If subterfuge used) How many free days did you get by such subterfuge?

Not asked.

Question 33. How does it happen that you didn't take more free time for yourself?

I am not accustomed to stay away from work. I think it is one's duty to work. Also it was forbidden, and furthermore I needed the money.

Question 34. Did you ever want to?

No. I took only the time that was necessary.

Question 35. In your opinion, how well was your home town protected against air raids?

At the beginning, Duisburg was well protected by flak but not at the last. Much of the flak was sent to the front. There were finally some good bunkers in Duisburg itself, but the bunkers in Alsum, the suburb in which I lived, were not strongly built. We went to the cellar of the Thyssen Works when we could.

Question 36. Was everything possible done?

I don't know. I think that there was too great a lack of men and materials to do more. At the last, the flak was manned by old men and boys. The younger-men were all at the front.

Question 37. (If dissatisfaction expressed) Who was to blame for it?

I do not think anyone was to blame. It

was due to lack of men and material.

Question 38. How good were the special measures and welfare services after the raids?

After the early attacks the measures undertaken to aid those who were damaged or bombed out were very good. We received extra rations of meat, coffee, candy for the children, cigarettes and whiskey for the men. Later there was much less, and finally nothing at all. The NSV always provided food. It was very good but there was not so much of it at the last.

Question 39. Was everything possible done?

I don't know. We assumed that everything was done that could be done and that there was not enough supplies to do more. Since the end of the war we have found out there were great supplies of whiskey and wine that have been plundered. We now know that many people lived well while the people didn't have enough.

Question 40. (If dissatisfaction expressed) Who was to blame for it?

Those who let the war go on. Our Partyleaders. They should have brought the war to a close. The Party leaders looked out for themselves first of all.

Question 41. Did the people here in Detmold help each other after the raids, or did they help themselves?

The people were very much depressed but they did help each other as much as they could.

Question 42. Did your opinions on the war change when the air raids didn't stop?

Yes, I was sure that the war would be lost. We could not hold out against the attacks.

Question 43. Did you ever come to a point because of the air raids where you simply didn't want to go on with the war?

We had to go ahead whether we wanted to do so or not. We couldn't simply say that we would not carry on any more. I didn't come to any such decision because it wasn't possible. Often enough I was tired out with the war.

Question 44. What did you think at that time of unconditional surrender?

I did not know how peace could be made and did not hear about unconditional surrender during the war.

Question 45. What, in your opinion, was the chief cause of the war?

It was said that we needed colonies and more land. There was the question of the Polish corridor and the mistreatment of Germans there. I haven't thought much about the fundamental cause of the war. I suppose that the big people such as Hitler wanted more power.

Question 51. Did you leave Duisburg voluntarily or were you forced to go away? Please explain further.

I came to Detmold voluntarily because I could not keep my child longer in Duisburg. I do not know whether people in Duisburg were forced to leave later or not.

Question 52. Were official arrangements made for your trip and living facilities, or did you have to arrange them yourself?

We could have obtained the money for our traveling expenses, but it was so much troble to make the application that we came with our own funds. We came at first to relatives here, but had to find other quarters since it was too crowded. My sister came with me and we both have small children. The NSV and the Wohnungsamt here would not help us because the people from Duisburg were supposed to go elsewhere when evacuated. The people who were assigned here are from Gelsenkirchen, Aachen, etc. Since we were officially supposed to be elsewhere, we could not receive help here although there were vacant rooms. Finally a good woman who had a vacant room took us in. She wasn't allowed to put us in that room, however, but had to keep it vacant and let us have another room.

Question 53. Did your whole family that lived with you, go with you, or did some of your family stay behind?

Our parents with whom we had been living remained in Duisburg. My father had to work and also we had chickens and other things to be taken care of at home.

Question 54. (If some stayed behind) Who? Why?

See question 53.

Question 55. (If some stayed behind) Were you able to keep in touch regularly with the members of your family that were left behind?

Yes, through the mail. My mother came here in March 1945.

Question 56. In the main, how were you housed in the place to which you went?

See question 52. Five people live in the one room which we have. My mother, my sister and I and our two babies. We cook in this room and would have to carry water. It is much too crowded.

Question 57. Could you explain to me a few words how you reacted to the evacuation?

The woman with whom we live has been very kind to us but the people in Detmold generally are unfriendly. They are not like the people in the Rhineland, but are so reserved and mean. We would like to return to the Rhineland.

Interview No. 61260, Schedule B

The respondent, a 21-year-old girl, was interviewed June 25, 1945, in Bremen, where she had lived during the war. She had worked as a stenographer in the Focke-Wulf Munitions Plant. She was a Protestant and claimed not to have been a Party member. There were no casualties from raids in the immediate family, though their home had been damaged by bombs. Bombing also resulted in severe deprivation of commodities other than food, of water, and of heat.

Question 1. How is it going with you now under the occupation?

Good. I have had no trouble with the occupation government or the troops. My bicycle is gone; it was stolen by Poles. I tried to enlist the help of some English soldiers and have the impression that they would have helped me except for the inability to understand me. By the time I made it clear to them what I wanted them to do, the Poles were gone.

Question 2. Is it better or worse than you had expected?

It is better.

Question 3. What did you really expect?

I and all of us could only believe what we were told in the newspapers, etc. I believed that all men up to the age of 65 would be taken away to work elsewhere. I believed that we who remained behind would have to do hard manual labor in a slave status, breaking up stones, removing rubble and so on. I feared we would be moved about arbitrarily from one city to another. I feared we would not get enough food to support life. I feared rape and general violence and disorder. Also I feared severe limitations on civilian movements. I expected to be allowed out of doors only 2 or 3 hours a day. On the other hand, I expected freedom from air raids; that was a partial consolation.

Question 4. How do you think you and your family will fare in the next 3 or 4 years?

If things stay as they are or rather if the same tendencies go on, it will not be so bad. We are getting enough to eat; in fact, I am surprised that there were still so many things on hand. Already I notice an improvement. If a thing is repaired now, e. g. a bridge, you know it will stay repaired and not be wrecked again by an air raid, as one formerly expected. One sees rubble being cleared, streetcars being run again, etc.

Question 5. How do you think you and your ramily would have fared in the next 3 or 4 years, if Germany had in the end won the war?

It would have been better. I worked for the Focke-Wulf and so am out of work now, of course. My father would be back at work again also. Reconstruction would have created jobs for all.

Question 6. What do you think will happen to prices in the next few years?

I have heard from a friend in the police force that the prices will be held steady and I believe that.

Question 7. If Germany had won the war, what do you'think would have happened to prices?

I don't know but it was generally believed that the rationing system would be kept up for a few years and controls relaxed only gradually when they were no longer necessary.

Question 8. What, in your opinion, is the chief reason that Germany lost the war?

Because in Germany everything was wrecked by air raids, whereas in Britain and America the plants went steadily on, producing weapons, etc.

Question 9. What first brought you to the belief that Germany would lose the war?

The fact that the enemy advanced farther and farther in the West. About October 1944, I realized definitely that we would lose.

Question 10. As the war continued, what other influences strengthened your belief that Germany would lose the war?

The fact that we no longer had any defense against air raids. Also the big offensive against us on two fronts, West and East, in February.

Question 11. Was your war leadership as good as you had expected?

During the first part of the war, yes; then I and everyone else was completely enthusiastic for the war and our leaders. Later I found it strange and disquieting that so many top-ranking officers who had performed such excellent service were demoted one after the other.

Question 12. Is that your opinion for both the military and the political leadership?

I did not concern myself with politics, except that I had absolute confidence in the Fuehrer and the whole political leadership. Only with regard to the military leadership did I have misgivings.

Question 13. How did you think about this shortly after the beginning of the war?

I was then completely enthusiastic about the entire leadership.

Question 14. (If changed) Why did you change, your opinion about it?

For the reason mentioned in (11).

Question 15. During the war, did you believe that your war leaders wanted what was best for you or not?

Yes. For the simple reason that they were men from the ranks of the common people.

Question 16. How well handled were the problems which the war caused here at home?

At last it was not so good. For instance, in the early part of the war, alarms came well ahead of attacks; one had an hour or more to get to the shelter. But later on the alarms came at the same time as the fliers themselves or only a couple of minutes sooner. The air-raid shelters were too few and too small. The one which we used where I live was intended for 800 people and was actually used by 3,000 or 4,000. In there we were so crowded and hot that one after the other vomited and the air became all the worse on that account. We just took off clothes without shame because of the unbearable heat. Most of the time I did not use the public shelter anyhow. In the confusion of of the last part of the war, new regulations kept coming out only to be supplanted by new ones in a few days.

Question 17. Do you think that you, personally, got along worse during the war than other people?

I fared better. My house is still standing and I was able to remain in Bremen. The Focke-Wulf company formed many new branches to decentralize the enterprise and make it less liable to damage by air raids and for a time I feared that I, like many others, would be moved to a branch elsewhere. However, I was able to avoid that.

Question 18. How did the people of your circumstances get along in comparison with other people?

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The wealthy and those belonging actively to the Nazi party were able to find new homes more quickly and so on. They had a preferential position.

Question 19. At the beginning of the war; did you expect that your life would be completely upset or did you think that you yourself would not be affected by the war?

. I thought that I would not be affected by the war, for at that time there were not yet any air raids; all of the stores, etc., were open. I and the rest of us expected things to remain thus.

Question 20. What was it that was hardest for the German civilian population during the war?

The air raids; all other hardships revolved around them. Also the many deaths in families caused by some sons, etc., falling at the front.

Question 21. During the last year did you reflect much on the state of the war, or didn't you have time for that?

Yes. I was worried by the approach of the Russians. The propaganda made the atrocities of the Russians very vivid.

Question 22. (If reflected) What did you think about?

I had a long working day (sometimes 15 hours) and lost much sleep because of air raids at night, so that I did not have a great deal of time to think about anything. But my thoughts were about the war exclusively. I thought first and foremost about my own family, only then about more general implications of the war situation.

Question 23. Did you at any time during the war come to a point where you simply did not want to go on with the war?

Yes, I was tired of the war around the beginning of 1944 in the face of the reverses on all fronts. I felt that any reasonable person must see that the situation was hopeless.

Question 24. What brought you to this point? See question 23.

Question 25. What did you think at that time of unconditional surrender?

I thought, if the Fuehrer sees that it is hopeless then he will accept this demand and sign unconditional surrender. And then I always reflected: Or *does* he have a new weapon which will turn the tide of the war?

Question 26. How many work days were you absent from your work in 1944?

Thirty days ill. Six days vacation. Five days allowed to take part in the repair of my house after air raids.

Question 27. Why were you absent?

See question 26.

Question 28. How much free time did you take on your own?

I didn't dare.

Question 29. Did you ever have to use any kind of subterfuge in order to get some free time?

Yes.

Question 30. (If subterfuge used) How many free days did you get by such subterfuge?

Not whole days, just a few hours now and then. The only excuse that did any good was that I wanted to see a doctor.

Question 31. How does it happen that you didn't take more free time for yourself?

Because such a strict control was exercised. One time I stayed home from work because I was actually ill. The company sent a person to check and they were not satisfied until they forced me to get up and go to a doctor to have my story verified.

Question 32. Did you ever want to?

Yes.

Question 33. What were your experiences with air raids?

My experiences on the 6th of October 1944, were a good example. An alarm came at 7 p. m. I was at home. I stayed at home usually because I did not want to be sitting in the public shelter while my house was possibly burning. My mother and sisters went to the shelter. I stayed upstairs because our house has no cellar. The first wave of airplanes passed overhead and nothing happened. My hope grew that this time nothing would happen.

Then a second wave came. I knew by the sound that it dropped incendiary bombs, although none landed in our neighborhood. I also knew that after incendiary bombs, demolition bombs were dropped. Therefore I ran to join my family in the air-raid shelter. All the people scolded me and said that if I again came so late they would not let me in at all. While I was in the shelter, a third wave of planes came over and by the noise I knew that there were nearby hits. Some fell on the shelter itself. A great deal of panic arose in the shelter when that happened. Downstairs I could hear that our airraid fighters were called up, so I knew that our neighborhood had been hit. I insisted on going out with them and finally succeeded although I had an exchange of words with the official at the gate, who was unwilling to let me leave, being a woman. Outside all was a sea of flames. The house next door to ours was in flames. Your couldn't see that there were any flames in our house because of the air-raid curtains. It was difficult to get to my house because of the air raid and across the way a house had had a direct hit and was blocking the entrance somewhat. I got inside and ran upstairs. As I got in, a wave of smoke met me. Several incendiary bombs had penetrated the attic. I threw sand on them and extinguished them. Also a bed had caught fire. I threw it out of the window. I had to go downstairs then because it was difficult to breathe up there. Downstairs I got a wet cloth to hold on my nose; luckily the water was running. I ran back to the shelter to get my mother because I could not handle the whole situation alone. Again I had difficulty with the official at the gate. He said, "Either in or out !" Nevertheless, I succeeded in caus-

ing him to make another exception in my favor. Then I went back home with my mother, for whom I had also brought additional wet cloths. When we got home a new wave of bombers passed overhead, but we went ahead with our fire fighting. My mother found and extinguished some incendiary bombs that I had missed, or rather we both extinguished them. The windows were blown open by the pressure from the demolition bombs which had struck earlier, and showers of sparks from the surrounding flames had set fire to the curtains and rug. I tore down the curtains and threw them out the window. My mother ran and fetched water from the bathtub which we always kept handy and with that she put out the fire in the rug. After we had things under control, my mother went back to the bunker and I stayed home as long as I could stand it, but the air was so hot from all the flames everywhere that I got dizzy and got a headache, so that I went to the bunker where the air was better. And so I went back and forth between the bunker and my house all night long like a pendulum. In our street one house after the other burned. The fire fighters were not to be seen. Fire engines were there from all cities around Bremen. They stood around idly for a long time, saying they could not couple the hose to the hydrant without any order to that effect. In time, however, they got such an order, no doubt because they helped put out the fire in in the house on the other side of mine. I, too, helped, of course, and also kept pouring water on the walls of my house, which were very hot, so as to keep the flames from spreading. . I worked in this way all night at one thing or another. In the morning I worked to mop up the water damage to our house, when I was interrupted at 10 o'clock by an alarm. There was no raid on this occasion, however.

Question 34. During the war did you expect that you in this immediate vicinity would be exposed to air raids, or did you think that you would be spared?

No, we did not expect air raids because during the first months of the war no such thing happened. We thought the Government was simply erring on the side of caution in stressing air-raid precautions so much. Question 35. Did the news of air-raid damage in other cities strengthen or weaken your will to see the war through?

Neither of the two.

Question 36. Did you blame the Allies for the air raids?

And how!

Question 37. In your opinion, what did the Allies want to accomplish with these raids?

They wanted to terrorize the people. Later it seemed they did more tactical (sic) bombing, but at first they always hit in residential sections, never factories, etc.

Question 38. During the war were you uneasy that the German armament industry would be critically damaged by the air raids, or did you think that the armament industry was safe?

I was afraid that the war industries would be critically hit.

Question 39. What did you think of the Vweapons when they were first used?

 \cdot I did not think much of them. I was far too weary of the war to see any ray of hope in them.

Question 40. Did you ever listen to Allied broadcasts?

Yes.

Question 41. When did you first begin to listen? Through 1944 and 1945.

Question 42. What programs did you listen to?

New York: Hier spricht New York! (with drum signal) From France, after Allies arrived there: Soldatensender west.

Question 61. Did your family leave Bremen voluntarily, or were they forced to go away? Please explain.

My sisters had to leave compulsorily because their school was moved out of Bremen.

Question 62. Were official arrangements made for the trip and living facilities, or did you have to arrange them yourself?

We did it ourselves.

Question 63. Were you able to keep in touch regularly with the members of your family?

Yes: By mail.

Question 64. In the main, how were they housed ' in the place to which they went?

They were at the home of relatives, so that they were well housed and looked after. They are two sisters, aged 7 and 9 at the time. This whole thing lasted only half a year, then they came back because they were homesick.

Question 65. Could you explain to me in a few words how your family reacted to the evacuation?

See question 64.

V. Sampling Method and Procedure

Area Covered

The cross-sectional study in Germany covered that part of the country lying to the west of the western boundaries of Mecklenburg, Provinz Sachsen, and Thüringen. The area corresponds closely with that under occupation by the American, British, and French troops.

In 1939 the population of the areas was 40.4 millions, as compared with the total German population of 69.8 millions. Accurate current estimates of the population of the sample areas are not available. An estimate made by the Combined Working Party as of January 1945, gave 34 millions for the German civilian population in the sample area. Most of the decrease from 40.4 millions was accounted for by men serving in the Wehrmacht, and by war casualties: in addition, a decrease of 2.2 millions was attributed to evacuation to more easterly areas.

Within the sample area, the sample was restricted to German civilians between the ages of 16 and 70. The lower limit was chosen because preliminary interviews in Krefeld and Darmstadt had shown that persons under 16 were usually not sufficiently mature to provide informative answers to the questions in the schedule. The exclusion of persons over 70 was made mainly for practical reasons: in the large cities where transportation facilities were seriously damaged by bombing, the respondents frequently had to walk considerable distances to the place of interview. Men who had been in the Wehrmacht during the period of intensive bombing were excluded. The only additional exclusion was that of a group of Germans who were evacuated from eastern to western Germany early in 1945 because of the advance of the Russian armies. Since this group had obtained almost all of its bombing experience in eastern Germany, it was not considered comparable with the rest of the civilian population in the sample area.

Analysis of Bombing Data

Preliminary to the selection of the sample towns, chronological data were assembled on strategic raids by the 8th and 15th Air Forces and the RAF, and on tactical raids by the 2nd, 9th, 12th, SHAEF and ADGE Air Forces. For each raid the data gives the target attacked, the number and types of planes, the number and weight of each type of high explosive or incendiary bomb, and the time at which the planes were over the target.

The official records and reports were carefully checked against one another 'to obtain accurate data for the sample towns. For example, for the Sth AF the Statistical Summary of Operations (Daily) was consulted for primary figures since this record gives detailed information on target, number of planes and bomb tonnage. These figures were then compared with the Mission Expenditure Report (Bombers), a daily record of type, weight and number of bombs expended. Finally, the figures were corrected by a study of the Monthly Summary of Operations, a consolidated report which is more accurate but less detailed than the daily records. The Monthly Summary permitted the following types of corrections: (1) deduction of tonnage due to loss of planes before the target was reached and (2) allocation of tonnage to secondary targets. In a similar manner tonnage figures for the RAF were arrived at after studying the following records: Bomber Command: Summary of Operations (Day and Night): War Room Monthly Summary of Bomber Command Operations and the Interceptions/Tactics Report.

From the beginning of 1942 till VE day the data are complete and, it is hoped, free from major errors, though absolute accuracy is difficult to achieve because of the different sources and different types of reporting, and because of abortive raids. Data on RAF raids previous to 1942 were incomplete: the omissions, however, are considered unimportant because raids in that period were small by later standards.

From these data certain attributes of the bombing experience were summarized for each town in the sample area. These included the total H. E. and I. B. tonnages dropped on the town, the total tonnage dropped in day and night raids, and the total tonnages dropped in "area" and "precision" raids. A night raid was defined as one occurring between 1900 hours and 0700 hours. An area raid was taken as one where the target was the town or the town center; raids with any other target designation were considered precision raids. Some study was made of the time pattern of air attacks so as to classify the experience of the target towns as regards "early" versus "late" raids, and "continuous" versus "sporadic" raids. Finally, frequency distributions of the raids were made according to total tonnage dropped. From these distributions the towns could be classified as having received mainly heavy raids or having received mainly light raids. The classifications described here were used subsequently in the selection of the sample towns and in the analysis of the interviews. Data were also available on strafing raids and on German flak and fighter opposition; lack of time did not permit summary of such data.

General Principles Used in the Selection of Sample Towns

The first step was to classify the towns in the sample area. Ideally, the aim is to place in the same group towns which had similar bombing experience and which are similar to their economic, political and cultural characteristics. If the classification is highly successful, the effects of bombing on the people in a specified town should be the same as the effects on the people in the group. Thus, it would be necessary to interview people from only a single town in the group. This town, the "sample town," represents the whole group. After the selection of a sample town for each group, the next step is to allocate the number of people in the group which the town represents. This allocation provides a truly representative sample, since each experience group is represented in the sample to the same extent as in the population.

In the application of this procedure to the present case, there are several complicating factors. First, the questions in the schedules deal with many different aspects of bombing experience. With some questions the response may. depend on the relative amounts of day and night bombing which the respondent had undergone; with others, on the relative amounts of high explosive and incendiary bombs, on the total weight of bombs, or in the amount of destruction in the town. It was not possible to find different towns which were similar in all aspects of their bombing experience. Therefore, after examination of the questions in the schedule, some choice had to be made of the most important characteristics of the bombing as a basis of classification. Secondly, at the time when the sample was constructed, there were no accurate figures for the current populations of the different groups. Consequently, rough estimates were used; insofar as these were in error, certain groups will be over-represented and others under-represented. Finally, since only a small number of people could be interviewed in a town, it was necessary to consider the problem of obtaining a representative sample of the people in each selected town.

It seemed clear that the first criterion to be used in classification should be some index of the severity of the bombing. No single index appeared wholly satisfactory. Total weight of bombs was inadequate in comparing large and small towns while weight per unit area tended over-estimate the severity to of bombing on small compact towns. The destruction, as measured by the percentage of buildings destroyed, might have been the best index, though it did not take account of effects which depend on the number of raids. Further, the data obtainable from photo reconnaissance on the percentage of destruction applied mainly to 1944 and were considered unreliable for the present purpose in view of the extremely heavy raids on many towns in 1945. After examination of these and other measures of severity, it was decided to classify first on the basis of total tonnage, and to avoid as far as possible placing large and small towns in the same group.

The following classification of towns according to total tonnage was used in the early stages of the selection of sample towns. The 1945 figures refer to the civilian population; that is, they exclude soldiers. Strictly speaking, only people between the ages of 16 and 70 should have been included. However, the use of totals for all ages was considered sufficient for the purpose.

 TABLE A.—Broad classification of German towns by total

 tonnage

Tonnage group	Number of towns	1939 population (millions)	1945 population (millions)	Provisional number of sample towns
Over 20, 000	15	9.0	4.9	10
10, 000-20, 000	11	1.7	1.1	3
5, 000-10, 0000	10	2.1	1. 5	4
1, 000-5, 000	53	2.8	2.1	4
100-1,000	54	1.5	1.4	8
Subtotal	152	17.1	11.0	24
Leis than 100	· · · · · · · · · · · · · · · · · · ·	23. 4	23.0	1
Grand total		40.5	34.0	34

For example, 15 towns in the sample area each received more than 20,000 United States tons of bombs in raids during the war. The total population of this class in 1939 was nine millions and was estimated crudely as five millions in June 1945. The 1939 populations were obtained from the German population census (*Statistik des Deutchen Reiches*, Band 500, Berlin 1941) of that year. For the 1945 figures, two sources were helpful: the *Reichsgesundheitsblatt*, which gives population for cities over 100,000 up to the fall of 1944; and estimates of German migration made by the Combined Working Party.

It will be noted from the subtotals that 152 towns each received more than 100 tons, their total 1939 population being 17.1 millions, or 42 percent of the total for the whole area. Due to evacuation from bombed to unbombed areas, this percentage was estimated to have declined to roughly 33 percent in 1945, (i.e., 11 millions out of 34 millions).

It was proposed to distribute the number of interviews in the various tonnage classes in proportion to their 1945 estimated populations. At this stage the number of sample towns was fixed. provisionally as 4 per team, giving 32 for the whole German area. This decision, which allowed for an average of slightly over 100 interviews per town, was made arbitrarily. The use of more towns would have given a more detailed coverage of the various types of bombing, but would have increased the time spent in travel and administration, with a resultant decrease in the total number of interviews. The final number of towns was actually 34, 2 of the teams covering 5 towns each.

It has been pointed out in table A that at the time of the interviews about two-thirds of the people in the sample area were estimated to be living in communities which had not been bombed or had received only a few bombs. Some coverage was required both as a control on the responses of people in bombed towns and for the sampling of evacuees from the bombed towns. Consequently, 10 of the 34 sample towns were selected from the unbombed or very lightly bombed towns. The remaining 24 towns were then allocated to the different tonnage classes roughly in proportion to the estimated number of people in each group in June 1945, as shown in the right hand column of table A. Since 24 towns were allotted to cover 11 million people, the sampling rate was about one town per 460,000 people. Thus the 15 towns with tonnages over 20,000, having a 1945 population of 4.9 millions, should be represented by between 10 and 11 towns; actually 10 were selected. Similarly, three of the 11 towns with tonnages between 10,000 and 20,000 were chosen, and so on.

Details of the Method of Classification

The previous analysis provides a rough allocation of the 34 sample towns as between heavily bombed, lightly bombed and unbombed towns. The next stage was to prepare a more detailed subdivision of the sample area into 34 groups, each group to be represented by one sample town, which was to furnish a number of interviews proportional to the estimated 1945 population of the corresponding group. However, it was desirable to have about the same number of interviews in most of the sample towns, as one of the main purposes of the cross-sectional study was to investigate the relation between the morale of the people in the sample towns and the bombing experiences of these towns. It is known from statistical theory that analyses of this type can be carried out most efficiently and conveniently with an equal number of interviews per town. It was necessary when classifying the towns to attempt to make the groups of approximately the same total population, so that the number of interviews from a group remained proportional to the number of people in the group, as specified above. In view of the roughness of the estimates of 1945 populations and of the fact that some teams would return more schedules than others, this restriction was not applied rigorously.

In order of their 1939 populations, the 15 towns with the largest tonnages are as follows: Hamburg, Munich, Cologne, Essen, Frankfort, Duesseldorf, Dortmund, Hannover, Stuttgart, Duisburg, Nuremberg, Mannheim-Ludwigshafen, Bremen, Gelsenkirchen, and Kiel. Since 10 sample towns were to be chosen from this group, the towns had to be arranged in 10 groups. Hamburg justified immediate selection since its present population was known to be about one million, or more than twice the size (460,000) required for a group. For this reason Hamburg was placed in a group by itself and 20 interviewing days were assigned to its instead of the usual 12. Munich, with a present population of 450,000, was also large enough to form a group by itself. These selections left 8 towns to be taken from the remaining 13, none of which were estimated to have a 1945 population as large as 460,000. It was considered inadvisable to sample both Bremen and Kiel, since both are northern port towns with almost the same total tonnage and were raided at frequent intervals since early 1942. Consequently, a group was formed from these two towns, Bremen being chosen to represent the group. Similarly the reactions of the people in the five highly industrial Ruhr towns were expected to differ little, especially since the towns are so close together that each experienced some features of raids on the others. Thus Essen and Duisberg were placed together in a group representing the most severely raided of the Ruhr towns, while Dortmund, Duesseldorf and Gelsenkirchen with smaller total weights comprised a second Ruhr group. Essen and Dortmund respectively were chosen as the sample towns.

Five towns to be selected from those remaining: Hannover, Cologne, Frankfort, Mannheim-Ludwigshafen, Stuttgart, and Nuremberg. Of these the two which could best be paired were Frankfort and Mannheim-Ludwigshafen, both of which experienced a steadily increasing severity of raids from 1942 to early 1945 and both were located in the same region. Frankfort-on-Main is the sample town for the group. The four remaining towns, Hannover, Cologne, Stuttgart and Nuremberg, were each placed in a separate group. The groupings and the total bomb weights are shown in table B. The 11 towns with total tonnages between 10,-000 and 20,000 are as follows:

TABLE B

Town:	Tons
Kassel	19,000
Braunschweig	18,000
Koblenz	14,000
Muenster	13,000
Snarbruecken	12,000
Wilhelmshaven	12,000
Karlsruhe	12,000
Mainz	11,000
Hamm	11,000
Bochum	11,000
Osnabrueck	10,000

In this group Bochum is anamalous. Considerably larger than the other towns and more highly industrialized, Bochum experienced almost all of its attacks at night, whereas the other towns experienced mainly day raids. For these reasons it was decided to classify Bochum with a later group of Ruhr towns. Three groups were formed from the remaining 10 towns. The first group comprised Kassel and Braunschweig, which are the two largest towns and had the highest tonnages. The bombing experiences of the remaining eight towns were generally similar. However, the northern group, Muenster, Wilhelmshaven, Hamm and Osnabrueck, underwent a slightly longer period of bombing and more area-bombing than the southern group. Consequently, one group was formed from the four northern towns and one from the more southerly towns. To the northern group the small port of Emden was added, since its temporal pattern of bombing was similar to that of Wilhelmshaven, though on a smaller scale. One town was then chosen at random from each group. Kassel, Muenster, and Karlsruhe, respectively, were drawn.

Below 10,000 tons the towns are smaller, and larger numbers of towns had to be used in constructing a group. The most heavily raided towns in this class fell fairly naturally into two groups. The first was a group of Ruhr towns: Bochum, Oberhausen-Sterkrade, Solingen, and Wuppertal. They received an average of 7,000 tons delivered almost entirely in sporadic heavy night raids extending back to 1943. The second is a group of nine southern towns with an average of 6,000 tons (dropped mostly'by day late in the war). Wuppertal and Ulm, respectively, were chosen for these groups.

At the level of around 4,000 tons, three groups were formed. The first contained the larger towns west of the Rhine, Aachen, Krefeld, Muenchen-Gladbach (the sample town) and Neuss, which were attacked mainly at night. To these were added some of the smaller towns in the same area, such as Cleve and Dueren, which had smaller tonnages but heavy destruction. A second group consists of some smaller Ruhr towns, mainly day raided and represented by Bottrop. A more southerly group, rather widespread, and subject to day raids late in the war, was represented by Bonn. Only two further groups received average weights exceeding 1,000 tons: one contains mainly southern towns with a few late heavy raids and an average of 2,200 tons; the other contains the remaining Ruhr towns. Freiburg and Witten were chosen as the corresponding sample towns.

With a few exceptions the rest of the bombed towns are small and were bombed late in the war. One group was formed from the principal exceptions: Flensburg, Luebeck, Oldenburg, and Remscheid, all of which received their heaviest raids early in the war. The other towns were divided into three groups on the basis of their geographic locations. Neumuenster was selected to represent the northern group, Wetzlar the central group, and Kempten the southern group.

The unbombed and very lightly bombed towns were classified by location and population. Very few of these towns had populations over 50,000. Heidelberg was the largest, having a population of about 80,000. Five groups were formed from the towns with more than 20,000. Detmold was chosen from the north, Ludenscheid for the central area, Speyer for the south Rhine and Palatinate, Tuebingen for Baden, and Wuerttenberg and Erlangen for Bayern. A similar geographic coverage was planned for towns with populations below 20,000. It proved, however, impractical to coordinate this complete plan with the work schedules for the southern teams, with the result that the small towns in the south are not represented. North and central Germany are represented by Echernfoerde (a small port 20 miles north of Kiel), Bissendorf and Rietze (two farming villages in the Hannover region), Kettwig (a country town in the Ruhr) and Muenden (10 miles from Kassel).

To summarize, bomb tonnage and to some extent population were used as the primary characteristics for classification. Secondary characteristics were the time pattern (i.e. early versus late attacks), geographical location and day and night bombing.

Within the groups the sample towns were selected in most cases at random, with probabilities proportional to the estimated populations of the towns in each group. The reason for this assignment of probabilities was to give every person in the British, American, and French areas of Germany an equal chance of being interviewed. For instance, suppose that a group to be sampled contains two towns, A with a population of 70,000 and B with a population of 30,000, and that 100 interviews are to be taken in whichever town is chosen. Since there are 100,000 people in the group, the probability that any person in the groups will be interviewed ought to be 100/100,000 or 1 in 1,000. Now the probability that a specified person in town A will be chosen is the probability that town A is chosen, multiplied by the probability that any one person in A will be selected if that town is in the sample. The latter probability is 100/70,000 or 1 in 700, since 100 interviews are to be taken in the town A where there are 70,000 people. Hence the first probability, i. e., that town A will be chosen, must be taken as 7/10 in order that the product, (7/10 x)1/700), shall equal to 1 in 1,000. Similarly, the probability that the smaller town is chosen must be taken as 3/10. It will be noted that the two figures, 7/10 and 3/10, are proportional to the populations of the two towns. Had equal probabilities been assigned, people in the smaller town would have had a better chance of coming into the sample than people in the larger town.

Substitutions were made for two original selections, Bamberg and Friechrichsthal, because excessive travel would have been required to sample these towns. Three selections in the unbombed towns, Arnsberg, Ludwigsburg and Landau, were also rejected because information which arrived after the selection showed that these towns had been bombed. Another town in this group. Speyer, received 300 tons, but was retained because the town was not heavily damaged. This type of difficulty was anticipated because of the time-lag in the summarization of the bomb data.

It will be noted in table C that there are substantial variations in the estimated 1945 populations of the groups. An attempt was made, however, to retain approximately correct proportions as between heavily and lightly bombed towns. For instance, of the large Ruhr-Rhine towns, Cologne has a population below the group average of 460,000, the Essen-Duisburg group is slightly too large, while the Dortmund-Duesseldorf-Gelsenkirchen group is much larger. For the six towns as a whole, however, a sample representation of three towns is about right. Similarly, the less heavily raided Ruhr towns (the Wuppertal, Bottrop, and Witten groups) also merit three sample towns, although the Wuppertal group is somewhat under-represented. In the more lightly bombed groups, part of the variations in size were due to revisions in the classification made because of bombing data received too late for the original classification.

Selection of People within Towns

A host of factors could be named which might influence an individual's reaction to bombing. Party membership, age, sex, economic status, and religion were considered among the most important. It was desirable to make the sample of people to be interviewed as representative as possible of these factors in the composition of a town. This can be accomplished in two ways. The most accurate is to obtain data on the number of people in the town having each of the possible combinations of the selected factors. The sample can then be selected so that the number of people in the sample having a given combination is proportional to the corresponding number in the whole town. If this method is not practicable, the best procedure is to draw the sample so that every person in the town has an equal chance of inclusion. In this case the sample proportions of the various combinations will not be correct for an individual town, owing to chance fluctuations, but for a group of towns the fluctuations tend to cancel and no consistent biases are introduced.

In drawing the samples an attempt was made to control the proportions on age and sex, as described below. Control on Party membership was not feasible at the time when the samples were drawn because few membership lists were available. Control on religion could not be used for similar reasons. Occupational data were available by individuals which would have permitted some control on economic status. However, insufficient time was available to make estimates of the

TABLE	COlassification	of	German	torons	into	bombing-
	experi	ien	ee group	3 1 .		

		-					
		1945	Вошр			1945	Bomb
		group	ton-		1939	group	ton-
į	(000)	(000)	nage (000) (pop. (000)	pop. (000)	nage (000)
Hamburg	1 711	1,000	41.3	Aachen	164		7.3
	.,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Cleve	22		8.6
Munich	823	450	28.3	Dulmen	10		2.2
Stuttgart	458	350	27.2	Dueren	15		1.7
Hannover	471	250	24.7	Emmerich	16		2.4
Cologne	772	150	47.2	Juelich	11		2.6
Nuremberg (Fuerth)	506	250	22.2	Krefold Leverkusen	171 50		5.4 3.7
(1.000.00)	4		·	Muenchen-	00		0.1
Bremen.	424		27.3	Gladbach	128		7.7
Kiel	273		26.2	Neuss	63		7.4
				Ruesselsheim	16		8.2
•	8 97	550	26.8	Wesel	24		5.8
T	╞══╕				720	450	1
Frankfort-ou- Main	.639		29.5		120	400	4.4
Mannheim]				Bottrop	83		4.6
Ludwigshalen	429	<u>-</u>	34.6	Castrop-Rauxel.	56		2.9
······································	<u> </u>	i i	1	Hagen	152		5.0
	1,068	650	32.0	Homberg	23		60
				Kamen	13		4.1
Dulsburg	438			Muelheim	136	?	ſ
Essen	· 667		41.5	Wanne-Eickel	89		7.7
	1, 105	550	37.2		552	400	4.6
			1				
Dortmund	542		27.3	Bluiefold	129		4.4
Duesseldorf		<i>-</i>	20.5	Bonn	100		5.4
Gelsenkirchen	318	••••	23.8	Giessen	47		4.4
		1	~ ~~	Kaiserslautern	70 42		3.6
	1, 419	800	23.9	Paderborn Rheine	42		3.8 5.4
Braunschweig	190	1	17.7		37		4.2
Kasel	216		19.1	Soest	25		3.3
				-			
	412	250	18.4		485	400	4.3
wai		1		Bluton	22		2.7
Emden Hamm	. 35 . 59		0.3 11.0	Bingen Bremerhaven	79		1.7
Muenstor	111			Freiburg	110		2 2
Osnabrueck			10.4	Fulda	32		2.0
Wilhelmshaven.			11.9	Heilbronn	78		2.9
		-		Homourg			8.7
	459	300	10.5	Ingolstadt			1
W		1]	Landshut			1.9
Karlsruhe				Pforzheim Rozenheim	22		2.3
Mains.			11.1	Trior	88		2.0
Saarbrucken.				Worms	δ1		1.8
		4	[Wuerzberg	98		
	572	350	12.3			1	<u>.</u> .
Boohum	20.	1	10.9		747	500	2.3
Bochum Oberhausen-Stork	. 305		6.0		20]	1.8
Solingen				Dorsten			· ·
Wuppertal		1		Gladbeck			1
		-		fierne	. 94		
ì	1, 039	700	7.0	Langendreer			1
	<u> </u>	f '		Recklinghausen .			1.2
Aschaffenburg			. 3.7				0.4
Augsburg Darmatadt					13	_	
Friedrichshafen.		1	1	**	421	850	1.1
Напац				11 1		±	1
Regensburg				Fleusburg	. 66		0.5
Schweinfurt	. 49						. 0.'5
И ш							
Wiesbaden	. 170		. 3.4	Remscheid.	. 95		. 0.9
	803	030	5.6	<u>}</u>	424	400	0.7
	====	-		∥ ·		╡	"
	1	1		1	ļ	1	
	1]	1		1	1	1 '

·····						<u> </u>	
	1939 pop. (000)	1945 group pop. (000)	Born b ton- nage (000)		1939 pop. (000)	1945 group pop. (000)	Bomb ton- nage (000)
Clausthal-				Rheydt	77		1.3
Zellerfeld	п		0.3	Schwerte	19		0.6
Cuxbaven	30		0.5	Troisdorf	11		0.7
Diepholz	0		0.0	Unna.	20		0.4
Goettingen	51		0.3	Viersen.	34		0.5
Gueterslah	33		0.4	Werl	11		0.3
Heide	13		0.8	Wetzlar	21		0.8
Hildesheim	78		1.5			[
Lehrte	12		0.3		457	400	0.8
Lingen	14		0.2	1			
Lippstadt	23		1.2	Ansbach	26		0.3
Minden	31		1.7	Bad Kreuznach.	32		0.6
Neumuenster	54		2.1	Bayreuth	45		0.8
Nienburg	12		0.9	Friedbarg	11		0.4
Stade	20	[0.2	Germersheim	6	l	0.2
Vechta	8		0.7	Gnuend	22		0.5
Zwischenahn	[11		0.9	Kempten	30		0.5
		·		Kitzingen	14		1.0
	407	400	0.8	Landau	26		0.6
,		:	l	Memmingen	16		0.9
Ahlen	26		0.2	Neckaraulm	9		0.3
Arnaborg	13	l	L 1.0	Neumarkt	11	{	0.4
Bitburg	6		0.8	Neunkirchen	41	1	1.5
Beizdorf	9		- 0.5	Offenburg		1	1.1
Bocholt	35	10	0.5	Pirmasens	1	J	0.5
Dillenburg	7		0.5	Restalt	17		0.2
Eschwege	20		0.2	Reutlingen	39		0.4
Euskirchen	17		1.8	Ruedesheim	6		0.3
Geldern	8	[·····	0.1	Saarlautern	30		1.8
Kyllburg	1		0.3				0.7
Limburg	12	1	0.3	Traunstein			0.3
Marburg		1	0:2	Straubing	29		1.1
Marl-IIuels	35			Zweibruecken	31	[0.6
Meschede	6		0.1			·	
Neuwied	21	· · · · · ·	1.2		539	600	0.8
Opladen	20	[1.6	l.	Ę	ļ	ļ
	I	T	1	<u> </u>			

¹ The figures at the end of each group show (from left to right) the total 1939 population, the estimated total 1945 population and the average bomb weight.

proportions in the various economic groups. Thus, apart from the control on age and sex, the sampling method used was to give every eligible person in the town an equal chance of being in the sample. In addition, data were recorded during the interview on occupation, religion and Party membership, so that differences due to those factors could be investigated later.

The first step in selecting the sample in a town was to discover the most up-to-date and complete list of the inhabitants. Where a military government registration had been completed recently, this was used. Since each person has a separate card, these lists were very convenient. In the majority of the towns registration was not complete, and ration card lists from the Department, of Nutrition were utilized. In most cases new registrations for ration cards were held monthly and it was to the obvious interest of the individual to register, so that these lists proved generally satisfactory in use. For drawing the sample they were less convenient because data were recorded by families and because in the large cities the lists were distributed in numerous district offices instead of being in one central place. The Registry Office lists were used in a few cases but tended to be out of date and were more troublesome. Inquiry was always made initially as to the completeness of the lists. In view of the great movements of population no list was 100 percent complete, but in nearly all towns they appeared to be more than 90 percent complete.

When the list to be used had been selected, a preliminary sample was drawn to estimate the age and sex distribution in the town. This sample averaged about 800 names in the large towns and 400 names in the smaller towns. This sample was obtained by taking every nth card so as to give the desired number and to cover proportionally every portion of the card files. A card file arranged by streets was used when available since this gave a good geographic coverage of the town. The names were then classified separately for men and women into the following age groups: over 45, between 20 and 45, and between 14 and 19. Thereafter the smaller sample of about 150 names was drawn from the larger sample, keeping the proportions in the six age-sex groups the same in both samples. At this stage persons over 70 or under 16 were rejected. Finally, the names and addresses were typed for use by the teams.

The proportions in the age-sex classes were quite uniform from town to town. Average proportions over 26 towns are shown below:

	Men	Women
Over 45	22	26
20-45.	12	30
14-19	4	6
Total	38	62

TABLE D.—Percentage of people in various age groups

Thus the average sex-ratio was about 38 percent men; for the group between 20 and 45 years it fell to about 28 percent.

In Hamburg, Essen, Dortmund, Kassel, and Munich, there were so many ration card offices (40-150) that not all offices could be reached for drawing the sample. An experienced city official rated every ration district according to percent of houses seriously damaged and to percent of unskilled workers. From these data the districts were classified and a number of districts (from 6 to 18) were selected to represent the city according to severity of damage and to economic type. Ration cards were then obtained from the chosen districts and the procedure applied as above.

The sampling of evacuees presented a problem. Evacuees who had gone to the Russian area of occupation could not be included in the sample. Evacuees who had gone to unbombed parts of the sample area would be covered to some extent from the 10 sample towns which represent these parts. Unless special steps were taken, however, such evacuees would be sampled at a much smaller rate than people who had not been evacuated, because of the deliberate under-sampling of the unbombed area. Some under-sampling of such evacuees was considered justifiable, because they could not supply information on certain of the questions in the schedules and because many of them had experienced little bombing. However, in order to provide a sufficient number of schedules from these evacuees for purposes of analysis, it was decided to interview an equal number of evacuees and permaneut residents in each unbombed town, rather than take the evacuees in the proportions in which they happened to be present. This was accomplished by drawing separate samples for evacuees and residents in unbombed towns. No special measures were taken for evacuees who had returned to the bombed towns. They were, therefore, sampled in the proportion in which they were present.

For the interviews, rooms were secured in a central building. Wherever possible a separate small room was obtained for each interview. In the large towns where transportation facilities were poor the interviewers travelled to different parts of the town on successive days. Appointments for the interviews were made in advance by Germans placed at the disposal of the team leader. For this job teachers, rationing officials or policemen were used. Most teams experienced some difficulty in one of their towns (usually the first) in maintaining the presence of the correct numbers of respondents for each set of interviews. In some cases the difficulty was due to the fact that people had moved since the lists were made; in others, to inefficiency on the part of the German official or to errors in the lists. Substitutions were allowed in such cases from other names in the lists. Some bias may have been introduced from such substitutions, but it is believed not to have been serious.

VI. Obtained Characteristics of the Sample

The German Sample

In all, 3,711 German civilians were interviewed in the course of the study, 2,010 in June and 1,701 in July 1945. Schedule A, using the direct interviewing procedure, was followed in 34 percent of the cases, and schedule B, the indirect procedure, in 66 percent.

. TABLE E .- Sex distribution of respondents

	Schedule A	Bchedule B	Total
	Percent	Percent .	Percent
Men	33	42	89
Women	67	58	61
Total	100	100	
Number interviewed	1, 248	2, 463	'8, 711

TABLE F.-Age distribution

Ago	Schedule A	Schedule B	Total	
	Percent	Percent	Percent	
18-19	6	6	6	
30-24	8		7	
25-29	5	. 6	5	
30-34	. 7	10	9	
85-39	' 11	11	11	
40-44	12	i2-	12	
45-19	13	13	. 13	
50-54	12	13	13	
55-59	10	9	9	
60-70	15	14	14	
No information	1	1	1	
Total	, 100	100	100	
Number interviewed	1, 248	2, 463	3, 711	

TABLE G .- Marital status of respondents

	Schedule A	Schedule B	Total
	Pettenl	Percent	Percent
Single	21	20	20
Married	70	73	72
Widowed, divorced, separated	9	7,	8
Total	100	100	100
Number interviewed	1, 248	2, 463	3, 711

TABLE H.-Educational level

	Schedule A	Schedule B	.Total
	Percent	Percent	Percent
Elementary school (Volkschule)	64	58	. 60
Trade school (Fachschule)	15	18	17
High school (Oberschule)	16	18	18
College (Flochschule)	4	6	ð
No information	1		••••••
Total		100	100
Number interviewed	1, 248	2, 463	3, 711

The respondent was placed in an educational grouping regardless of whether he had completed his training at that level. The high school group, for example, includes both high school graduates and those who had had some high school training.

APPENDIX B.—ATTITUDE TOWARD THE OCCUPATION

The morale division survey provided certain significant information on the reaction of German civilians to the occupation.

The 3,711 Germans in the 34 sample cities were asked the following questions about the occupation:

"How is it going with you under the occupation?

"Is it better or worse than you expected?

"What did you really expect?

"How do you think you and your family would have fared in the next 3 or 4 years, if Germany had won the war?"

Part of the sample was interviewed in June and part in July.

The interviews showed that the initial stage of the occupation was a great relief to the German people. First, bombing and the threat of bombing ceased. Second, although there were some cases of rape, looting and similar incidents, the behavior of the troops was very much better than the Germans had dared to hope.

The findings based on interviews made in June show:

TABLE A.-Attitude toward the occupation (June)

				Percent
Favorable at	titude .			85
Undecided;	or partl	y favorable	and partly	un-
favorable				9
Unfavorable	• •.• • • • •			6
. [.] Total	· · · · · · · ·	• • • • • • • • • • • •	• • • • • • • • • • • • • •	100

In terms of expectations the results were as follows:

TABLE B .--- Expectations and experience of occupation

P	arcent
Found the occupation better than they expected	65
Found the occupation the same as they expected	18
Found the occupation worse than they expected	11
Were undecided	6

Of the 85 percent with a favorable attitude toward the occupation, the main reason each gave for feeling favorable is as follows:
 TABLE C.—Reasons for favorable reaction to occupation
 (June)

La contra con	Percen
Relief that bombing had stopped	24
Relief that war and fighting had stopped	12
Have personal freedom	24
Have work	` 11
Like Americans	8
Miscellaneous reasons	6
Total with favorable attitude	85

After this first feeling of relief had passed, an appreciable shift in attitude occurred. In July the proportion with a favorable attitude had dropped to 58 percent compared with 85 percent for June. Both relief that bombing had stopped and that the fighting was over dropped appreciably as reasons for having a favorable attitude. On the other hand, the two reasons for being dissatisfied with the occupation which showed an appreciable increase from June to July are "shortage of food" and "cannot find employment." By July over half the people who were unfavorable in their attitude mentioned shortage of food.

The July results are:

TABLE DAttitude toward the occupation (July)
	Percent
Favorable	. 58
Undecided; or partly favorable and partly unfavor	r-
able	. 24
Unfavorable	. 18
· ·	
Total	. 100

Of the 58 percent with a favorable attitude toward the occupation, the main reason each gave for feeling favorable is as follows:

TABLE E.—Reasons for favorable reaction to occupation Percent

Relief that bombing had stopped	12
Relief that war and fighting had stopped	6
Have personal freedom	17
Have work	18
Like Americans	4
Miscellaneous reasons	6
-	

Total with favorable attitudes..... 58

A corresponding shift in attitude from June to July occurred in expectations for the future. When asked, "How do you think you and your family will fare in the next 3 or 4 years?", the answers were:

TABLE F.—Expectations regarding occupation

	June . July	
	Percent	Percent
It will be good	49 1	28
In some ways it will be good, in other ways bad	10	14
It depends	30	- 47
It will be bad	İ1	- 11
Total	100	100

The striking percentage decrease in over-all optimism is almost entirely absorbed in the increased feeling that "it depends." The dominant feeling became within 1 month "it depends." On what does it depend? The Germans who expressed this attitude in July-47 percent of the total-emphasized the following factors:

TABLE G.—Factors on which expectation depend	8
Pel	conti
On possibility of getting or keeping work	16
On restoration of economy (industry and trans-	
portation)	9
On what occupational authorities will do (severity,	
justice, and success of their plans)	6
On adequacy of food supply	10
On return of relatives (p/w's, etc.)	9
· _ · · · · · · · · · · · · · · ·	

¹ Total exceeds 47%; multiple reasons permitted.

Thus 25 percent of the German civilians or over half of those who expressed doubt about the future, refer primarily to the problems of unemployment and restoration of the economy-both inextricably associated with occupation policy and reconstruction.

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UNITED STATES STRATEGIC BOMBING SURVEY

LIST OF REPORTS

The following is a biblography of reports resulting from the Survey's studies of the European and Pacific wars. Those reports marked with an asterisk (*) may be purchased from the Superintendent of Documents at the Government Printing Office, Washington, D. C.

European War

OFFICE OF THE CHAIRMAN

- The United states Strategic Bombing Survey : Sum-**†**1 mary Report (European War)
- The United States Strategic Bombing Survey : Overall Report (European War)
- The Effects of Strategic Bombing on the German *3 War Economy

AIRCRAFT DIVISION

(By Division and Branch)

- Aircraft Division Industry Report
- Inspection Visits to Various Targets (Special Report) .5

Airframes Branch

- Junkers Aircraft and Aero Engine Works, Dessau, -6 `Germany
- Erla Maschinenwerke G,m b H, Heiterblick, Germany
- A T G Maschinenbau, G m b H, Leipzig (Mockau), 8 Germany
- 9 Gothaer Waggonfabrik, A G, Gotha, Germany
 10 Focke Wulf Aircraft Plant, Bremen, Germany
- Over-all Report 11 Messerschmitt A G, Part A Augsburg, Germany Part B
 - Appendices I, II, III
- 12Gerhard Fieseler Werke G m b H, Kassel, Germany 18
- 14 Wiener Neustaedter Flugzeugwerke, Wiener Neustadt, Austria

Aero Engines Branch

- Bussing NAG Flugmotorenwerke G m b H, Bruns-15wick, Germany
- 16 Mittel-Deutsche Motorenwerke G m b H, Taucha, Germany
- 17Bavarian Motor Works Inc, Eisenach & Durrerhof, Germany
- Bayerische Motorenwerke A G (BMW) Munich, Ger-18many
- 19 Henschel Flugmotorenwerke, Kassel, Germany -

Light Metal Branch

- Part I, Aluminum Part II, Magnesium 20Light Metals Industry of Germany
- $\mathbf{21}$ Vereinigte Deutsche Metallwerke, Hildesheim, Germany

- Metallgussgesellschaft G m b H, Leipzig, Germany
- Aluminiumwerk G m b H, Plant No. 2, Bitterfeld, 23 Germany
- $\mathbf{24}$ Gebrueder Giulini G m b H, Ludwigshafen, Germany Luftschiffbau Zeppelin G m b H, Friedrichshafen on 25
- Bodensee, Germany
- 26Wieland Werke A G. Ulm, Germany
- Rudolph Rautenbach Leichmetallgiessereien, Solin-27gen, Germany
- 28Lippewerke Vereinigte Aluminiumwerke A G, Lunen, Germany
- 29 Vereinigte Deutsche Metallwerke, Hedderheim, Germany
- 30 Duerener Metallwerke A G, Duren Wittenau-Berlin & Waren, Germany

AREA STUDIES DIVISION

- *81 Area Studies Division Report
- 32A Detailed Study of the Effects of Area Bombing on Hamburg
- 33 A Detailed Study of the Effects of Area Bombing on Wuppertal
- 34 A Detailed Study of the Effects of Area Bombing on Dusseldorf
- 35 | A Detailed Study of the Effects of Area Bombing on Solingen
- 36 A Detailed Study of the Effects of Area Bombing on Remscheid
- 37 A Detailed Study of the Effects of Area Bomung on Darmstadt
- 38 A Detailed Study of the Effects of Area Bombing on Lubeck
- A Brief Study of the Effects of Area Bombing on Berlin, Augsburg, Bochum, Leipzig, Hageu, Dort-30 mund, Oberhausen, Schweinfurt, and Bremen

CIVILIAN DEFENSE DIVISION

- *****40 Civilian Defense Division-Final Report
- 41 Cologne Field Report
- 42 Bonn Field Report
- Hanover Field Report 43
- Hamburg Field Report-Vol I, Text; Vol II, Exhibits 44
- 45 Bad Oldesloe Field Report
- 46 Augsburg Field Report
- 47 **Reception Areas in Bavaria**, Germany

EQUIPMENT DIVISION

Electrical Branch

- *48 German Electrical Equipment Industry Report
- Brown Boveri et Cie, Mannheim Kafertal, Germany 49

Optical and Precision Instrument Branch

*50 Optical and Precision Instrument Industry Report

Abrasives Branch

*51 The German Abrasive Industry

Mayer and Schmidt, Offenbach on Main, Germany 52

Dornier Works, Friedrichshafen & Munich, Germany

Anti-Friction Branch

*53 The German Anti-Friction Bearings Industry

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