Racial equity, the United States Army, operations research, and social science

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Abstract

As part of a wide-reaching special message on civil rights early in 1948, President Harry S. Truman directed the United States military to cease discriminatory practices based on race as quickly as possible. Beginning in 1951, The Johns Hopkins University’s Operations Research Office (ORO) was asked by the Army to help determine whether this was truly feasible and then to assess the means by which this could be effected rapidly. An examination of the history of this effort (called Project CLEAR) is instructive in understanding the social history of the United States in the twentieth century, as well as in appreciating the emergence of operations research (OR) as a useful tool in manpower planning and more general social contexts. However, the story is not without controversy. An argument has been present ever since 1951 about whether operations research received too much credit for impacting policy and supporting positive social change. No matter how this issue is resolved, there is no question that an OR organization and its staff of OR professionals were involved in Project CLEAR. All together, this is a most interesting tale, whose complete documentation has not been previously shown. © 2000 Elsevier Science Ltd. All rights reserved.

1. Introduction

A frequent topic of conversation in decision-making circles over the years has been a desire to find an acceptable, understandable and sufficiently broad definition of operations research.
What defines an OR study and the OR paradigm? What defines an OR person? And, most importantly, where does the discipline find its practical applications? The national operations research and management science professional community has long searched for distinctive “nuggets” to display to the scientific community, and even the public at large, as outstanding examples of the contributions that the field has made to improve quality of life. Though the issues of defining the field and determining its value to decision makers may seem somewhat disparate matters, they came together in a fascinating story which occurred almost coincident with the formal beginnings of the OR/MS profession in the early 1950s, and whose real-life outcome is still being felt today.

When the United States emerged from World War II as a victor, it began to address the true meaning of the Declaration’s words that “all men are created equal and endowed with certain unalienable rights.” Of course, it was not an easy matter to overcome approximately 300 years of racially motivated injustice to which the nation’s African–American population had been subjected. It turned out that some of the most significant steps toward equality of treatment and opportunity (and early momentum for the civil rights revolution to come in the 1950s and 1960s) were made by and within the American military, greatly motivated by the need for vast amounts of manpower necessary to allow the United States to wage a successful multi-front war effort and then to remain the World’s number one postwar power.

It is probably also fair to say that America was finding it increasingly contradictory to tout itself as “the land of the free and the brave,” while its black citizens were not allowed to reach equal status with their fellow Americans. We are thus saying, in a sense, that the operational pressure of the military’s need to maximize utilization of scarce manpower resources (an operations research problem) had a profound impact on the Nation’s ability to move toward racial harmony (a social problem).

There are those who argue that no profession has offered America’s African–American citizens — male and female — more opportunities in the years since the end of World War II than career military service (see [1]). Many of the children and grandchildren of the black men who flew so successfully for Tuskegee’s 99th Pursuit Squadron or walked into the Battle of the Bulge have also served their country’s military well in the years subsequent to World War II. Many African–Americans find themselves today as members of America’s middle class largely in part because of the jump start in life that the military has given through its training programs, educational support, housing loans, and retirement plans.

Though by no means free of racial stress, the financial, educational and career opportunities afforded by the armed forces allowed these black military veterans and their families greater proximity to “the enjoyment of the full privileges of citizenship” (words from the special message on civil rights sent to the United States Congress by President Harry S. Truman on 2 February 1948 — see [2], pp. 586–8; [3], pp. 309–14). For more complete details on the Army’s management of racial integration over the subsequent years, the reader is referred to [4] and [5].

For our purposes, the most critical portion of this incredibly far-reaching message was President Truman’s announcement that he had asked Secretary of Defense James Forrestal to stop discrimination in the military services as quickly as possible. (Interestingly, together with this came a request of Congress to begin processing claims made by Americans of Japanese descent who had been taken from their homes and relocated to detention camps — it took 45
On July 26, 1948, President Truman converted the military portion of his message into an Executive Order, numbered 9981, wherein he established a Committee on Equality of Treatment and Opportunity in the Armed Forces, to help the military services reach the President’s stated goal of equal treatment and opportunity without regard to race, color, religion or national origin.

Largely led by Minneapolis Mayor Hubert Humphrey, Truman’s entire civil rights program was adopted into the Democratic Party platform for the presidential election that was to follow in November 1948. Again to bring things somewhat up to the present, it was precisely this portion of the Democratic plank that caused southern Democrats to split off into a (temporary) new party called the Dixiecrats. The Dixiecrats then fielded a ticket headed by their Presidential nominee, Governor Strom Thurmond of South Carolina, and they won 39 electoral votes that November. Throughout his campaign, Thurmond was frequently heard to say that it was just plain un-American to racially integrate the military [2].

Lest it be thought that racial segregation within the US military was solely a southern matter, it must be noted that this was most certainly not the case. As late as the end of 1950 (with the Korean War already beginning its seventh month), black trainees were segregated at Fort Dix, New Jersey, for example, a mere “stone’s throw” from Manhattan. The then New York Congressman Jacob Javits, who was a constant critic of Army segregation from the very beginning of his congressional service, was especially unhappy about the situation at Fort Dix, where a large percentage of his constituents did basic training. In an exchange of letters with General Marshall, he was politely told to mind his own business [3].

2. Operational effectiveness

From the time of the Civil War, the Army’s policy had been to assign African–American soldiers to all-African–American units, which might or might not have African–American officers. This policy was based, at least in part, on an 1869 congressional act, and it held as formal Army doctrine through World War II up to the eve of the Korean War. When the Selective Service Act was enacted in 1940, African–Americans made up approximately 1% of the regular Army and 2.3% of the Navy, while there were no African–Americans in the US Marine Corps and the Army Air Corps. However, the impact of a segregated Army on the probability of success in World War II was understood by US generals, so policy began to change, albeit somewhat slowly.

Black leaders, including those of the NAACP and Urban League, considerable numbers of prominent white people, and the Nation’s First Lady, Eleanor Roosevelt, began to lobby President Franklin Roosevelt on the social and operational importance of a desegregated military and the granting of the “right to fight.” The President was favorably disposed toward modifying Army personnel policies, but the Armed Forces resisted and progress was slow (see [6]).

By late 1942, there came discernible signs of change. In March 1943, the US War Department directed all service commands to end the designation of recreational facilities by race and to move more quickly toward the desegregation of all Army facilities. A few months later, Lieutenant General Leslie J. McNair, Commanding General, Army Ground Forces,
voiced a strong concern that there were inadequate numbers of mostly poor quality troops (i.e., whites) to replace US battle casualties [6,3] and that desegregation was a possible answer. One year later, in mid-1944, the War Department made a major step toward the desegregation of training facilities when it ordered that all government owned or operated buses were to be managed in a totally non-racial fashion. (Mrs. Roosevelt told John McCloy in September 1943 that segregated military transportation was intolerable as long as “these colored boys lie side by side in the hospitals in the southwest Pacific with the white boys” — papers of Eleanor Roosevelt, from [6], p. 522)

The operational shortfall of running a largely segregated Army hit home on 16 December 1944, when a combined 10 German Panzer divisions and 10 infantry divisions, totaling 250,000 troops, launched a massive countermoffensive in the Ardennes Forest in Belgium (later to be known as the Battle of the Bulge — e.g., see [7]). With only an estimated 80,000 Allied troops at this location, an urgent call went out to “all-Negro” units in Europe (such units had existed in the Army for many years, with two full African–American divisions seeing combat service in World War I). For the first time, however, black soldiers were now invited to volunteer to fight alongside white troops and to be assigned only with regard to need at the fighting unit level (though the original order was to be modified to combine the races by platoon rather than individually).

Thousands of black soldiers answered the call, and approximately 2500 volunteers were actually accepted, with the divisions thus mixed, black and white men lived, played, and fought together. The rigors of battle broke down many (though not all) prejudices, and with the subsequent casualties in the field, the Army was even forced to go back to its prior order to mix troops on an individual basis. Though the “Negro” platoons performed very well in the Allied Ardennes counterattack, they were later returned to their prior segregated units because segregation was still the official policy. While great change was not very far away, reaching the desired end was not a simple matter.

Shortly thereafter, in early 1945, Assistant Secretary of War John J. McCloy urged that the Army make a thorough study of its racial policies and that revision be considered as a result of the recent field experience in Europe. The Army responded by establishing a board chaired by Lt General Alvan C. Gillem, Jr. Although this board was established to investigate improving the Army’s manpower efficiency by using African–American soldiers to best advantage, it soon found itself back at the old practice of discussing African–Americans in terms of the broader social context in which the Nation found itself at the time. Thus, its November 1945 findings and recommendations offered no fundamental change in existing Army racial policies.

This brings us to 1948 and once again, President Truman’s Executive Order 9981 of 26 July 1948 to the entire military to launch all appropriate steps to end discrimination in their ranks. To do so, the Army established a board headed by Lieutenant General S.J. Chamberlin to focus specifically on its utilization of African–American manpower; this, while the President appointed his own (civilian) Committee on Equality of Treatment and Opportunity in the Armed Forces under the chairmanship of Charles Fahy.

Unfortunately, the respective groups came up with diametrically opposed conclusions. While the Fahy Committee recommended in a preliminary report in May 1949 that the Army completely “level the playing field” with respect to jobs, schooling, assignment, and recruitment, the Chamberlin Board suggested (February 1950) that the Army retain its
traditional policy of segregation and racial quotas, though it did support minor levels of increased opportunity for blacks. The Army did accept the Fahy recommendation for opening all jobs and military training schools on a non-racial basis, as well as abolishing racial quotas for school slots. There were even isolated efforts at unit level integration; a notable example occurred in late 1950 with the desegregation of Fort (then Camp) Jackson, South Carolina, under the command of Brigadier General Frank McConnell.

But, when the final Fahy report was issued in May 1950 just prior to the outbreak of hostilities in Korea in June, it was clear that there were still hurdles to overcome [8]. The President’s support of the Fahy Committee’s recommendation put him in immediate dispute with the Army, and the Army itself realized that the Korean War would put a heavy strain on its manpower requirements. Indeed, as the War passed through its first six months into early 1951, the unavailability of white replacements and a very high rate of African–American enlistment led to the desegregation of a number of previously all-white combat units (see [3], Chapter 17).

As a result, the Chamberlin Board was asked in February 1951 to reexamine its findings in light of data coming from the war front on the combat performance of (the small number of already) integrated units. The Board did indeed concede that the data suggested that integrated units seemed to do better in combat than the combination of segregated ones and that racial tensions were discernibly eased. However, the Board refused to reverse its earlier position on a service-wide quota of 10% black and on other major portions of their prior report directed at combat personnel.

Given the existence of conflicting views on the complete integration of the Army, in March 1951 the Office of the Chief of Staff of the Army requested the Operations Research Office (ORO, later to become RAC, the Research Analysis Corporation) of The Johns Hopkins University to undertake a study on “The Utilization of Negro Manpower in the Army” (under the code name Project CLEAR) and to deliver its findings quickly by 1 July 1951. At the time that Project CLEAR was beginning, 98% of the Army’s black soldiers still served in segregated units, and the European command remained almost totally segregated until September 1951. The administrative end of segregation in the Army ultimately came in December 1951 upon orders from the Chief of Staff to commands all over the world (though the last all-African–American unit was not disbanded until 1954!). In contrast to the 1951 numbers, the Defense Department’s official tally for 1995 indicated that 27.2% of US Army personnel were African–American (see [4]).

3. Enter the operations research office

Desegregation was not a decision taken lightly by the Army, and directly involved many of its most well-known generals, including Army Chief of Staff General J. Lawton Collins, Major General Maxwell D. Taylor (then Assistant Chief of Staff for Operations, later Chairman of the Joint Chiefs), Major General Anthony M. McAuliffe (then Assistant Chief of Staff for Personnel, previously 101st Airborne Division commander at the Battle of the Bulge), and General Matthew B. Ridgway (Douglas MacArthur’s replacement in 1951 as Far East commander, previously Eighth Army commander in Korea). In MacGregor’s view [3], by
framing the move to integration in scientific terms, Project CLEAR “helped convince Army traditionalists of the need for worldwide change and absolved the Secretary of the Army, his Chief of Staff, and his theater commander of the charge of having made a political and social rather than a military decision.” Furthermore, it is hard to imagine what might have happened had ORO come to the Army with results questioning the efficacy of integrating the fighting forces.

Other than requiring the drawing of as much empirical evidence as possible from battlefield experiences in Korea, the form of the study was largely left to the discretion of ORO. In mid-May 1951, ORO outlined the evolving scope of the study to include:

1. a review of and report on existing in-house Army studies;
2. a review of the Fahy and Chamberlin studies, and any similar outside efforts;
3. a collection of relevant demographic, educational, and social statistical reports;
4. a summary of collected attitude surveys and general combat performance reports; and
5. tentative conclusions from all of the above evidence.

This is essentially what made it to the Army on 1 July 1951 in technical report ORO-T-99, classified Secret (see [9]). By most accounts, the foremost contribution of the ORO team was their presentation and review of all the data, especially the detailed personnel and battlefield surveys done by the social scientists from the American Institute for Research, International Public Opinion Research, Columbia University’s Bureau of Social Research, and American University’s Bureau of Social Science Research.

As we noted earlier, almost immediately upon the delivery of the results to the Army in July, ORO was asked to extend Project CLEAR to include:

1. an attitude survey of troops stationed in the 48 states, including an analysis of interracial social contacts both inside and immediately outside major Army posts; and
2. a further study in Korea of combat performance, with special focus on battle results for integrated units, especially within the infantry and studied at various ratios of blacks to whites.

The combat performance portion of this was ORO’s responsibility. But, once again, analysis was based upon questionnaires. The relative combat performance of black and white soldiers (in integrated units) was studied via judgmental assessments of so-called competent observers of military operations. The second report (ORO-R-11) was submitted to the Army on 1 November 1951, this time classified Confidential.

In the end, as the result of the two portions of the study, Project CLEAR’s major observations were that:

1. large all-black units were, on average, less reliable than large all-white units, though there was a higher variability among the black units;
2. the performance of individual black soldiers in integrated units was approximately the same as whites;
3. efficient officers, regardless of race, were accepted and appreciated by soldiers of both races;
4. integration raised the morale of African–American soldiers considerably, and did not affect that of white soldiers;
5. support for integration was almost unanimous among black soldiers and generally not
opposed by whites; 
6. generally, white support for integration increased with experience; and 
7. overall, integration had a positive impact on fighting effectiveness.

As we noted earlier, the Army was already moving toward integration when ORO delivered its final report. For example, General Ridgway had requested permission to abolish segregation in his command in May 1951, 1 1/2 months before the preliminary Project CLEAR report was delivered to the Chief of Staff. But there were many difficult moments yet to come during the next few months, as the Army moved along a tortuous path to the ultimate decision. It is quite widely conceded, however, that the final, combined analysis (classified Secret at the time) helped firm up the decision to deactivate all-African–American units and to integrate the Far East Command (August 1951), the Military District of Washington, and US Army forces in Europe (December 1951) [3].

In 1953, a paper by Hausrath about the study, sufficiently sanitized so as not to violate security regulations, was published in the open, professional literature [10] and also presented in a public seminar at Johns Hopkins in May 1953. In 1955, a condensed, one-volume version of all of Project CLEAR's written material was given to the Army as the formal, final contractual report. In 1963, a further abridgement was delivered by ORO (by then, actually RAC) to the Pentagon, which formed the basis for the unclassified project report released in July 1967 under the title “Utilization of Negro Manpower in the Army: A 1951 Study.”

4. Controversy

Following the completion of Project CLEAR, and especially around the time of the public release of the project report in the Vietnam-era year of 1967, there were loud complaints voiced about whether too much public credit accrued to operations research and ORO for their respective roles in the successful reversal of the Army’s longstanding policy of segregation. Leo Bogart, a major participant in Project CLEAR who was associated with International Public Opinion Research (IPOR) and delegated by ORO to organize and conduct the necessary survey research, long contended that although ORO was the Army’s research think tank, it had no real role in the structure and development of the project [11]. He described the conflict between ORO and IPOR as that between a social research team (IPOR) and a monitoring organization acting as the proxy for the Army and not as a scientific research organization pursuing and preserving OR objectives.

Bogart and others felt that there was misleading information given out to the public about why the project was based at ORO in the first place and how ORO was used as a contract vehicle for the Army, about Project CLEAR's relationship to the normal analysis portfolio of ORO, and about the relative roles in Project CLEAR of operations research versus the social sciences.

To respond to these points, we need to go back to the the years just prior to the outbreak of World War II. At that time, US Armed Forces already made use of civilian scientists for the production of new weapons and vehicles, though the development of tactics for their use was almost exclusively a matter for uniformed personnel. But, during
the first years of the War, civilian scientists began to play an important role in the study of strategy and more general operational effectiveness because of the pace of technological change and the day-to-day stress of military operations to which the specialist officers found themselves subjected. Civilian scientists came to play a sometimes vital role in these affairs, and there thus arose a new formal activity called operations research. One of the critical characteristics of early OR philosophy was the importance of having project teams made up of civilian analysts having very mixed backgrounds, from mathematics to law to biology to history.

After the war, it was clear, due to the demonstrated importance of military operations research, that civilian operations analysis organizations were needed in all the services. Thus, the Operations Research Office of The Johns Hopkins University was founded in 1948 to serve as the Army’s civilian run organization for operations research analysis and studies. ORO had the major goal of providing independent, objective, and scientifically sound studies of national security and defense issues. The first two years of ORO included assignments from the Army covering a major study of military aid to other nations, a study of artillery firing errors, and armored force operations. Arrangements were concluded with the Army to establish a broad program of continuing research on nuclear weapons, tactics, logistics, military costing, psychological warfare, guerrilla warfare, and air defense.

A core set of 15 projects was authorized for ORO and appropriately funded, thus providing a formidable base from which to proceed. When the Korean War broke out in June 1950, ORO was a functioning institution with a developing reputation for sound and practical analysis on behalf of the operational Army. However, ORO’s reputation for sound operational analysis has to be counterbalanced against the fact that personnel/manpower issues were very low or even absent from its agenda.

We think that it would be fair to say that the reports emanating from Project CLEAR do not show quantitative analysis of the kind typically associated with operations research today. There is no Lanchester modeling in the report, no use of statistical distributions, and in fact no equations or model of any sort. By 1951, the description of OR’s major thrust as the “scientific, quantitative study of operations” was already well established by Morse and Kimball [12]. Wagner’s [13] way of saying this was that “model-building is the essence of the operations research approach.” Morse and Kimball also made a special case for avoiding extreme reliance on expert opinion in operational evaluations, and instead making sure that OR studies use analytical methods [12, Chapter 1].

Among the key points made by Morse and Kimball on the distinctiveness of OR methodology were urgency, the engineering of a desired result, the examination and use of measures of value, and the application of measures of value to differentiate between successful and unsuccessful structures (such as, military organizational structures). In contrast, Hausrath [9,10] had described six social science techniques used to develop the CLEAR study:

1. Demography (relative rates of population growth, regional and age distributions, etc.);
2. Opinion and Attitude Surveys (on race relations, morale, relative performance, etc.);
3. Content Analysis (examining broadly based media coverage on relevant topics, etc.);
4. Critical Incidents Technique (categorizing witness descriptions of important events);
5. Statistical Analysis (survey sampling, tabulations, Guttman scaling, etc.); and
6. Community Surveys (e.g., opinion surveys on interracial contact around Army posts).

As a result, we believe that it is fair to say that the research methods used in Project CLEAR would not be covered by what we consider today to be the mathematics of OR. However, there is nothing to say that such work could not be performed by an interdisciplinary OR team holding a wide range of applied mathematics and statistics skills. In addition, the evaluation of military operations from studies of action reports was an established and well accepted role for OR coming out of World War II. In all fairness, also, the initial project time line for Project CLEAR was so short that it precluded an analysis process more consistent with the usual OR paradigm, normally including such things as a full problem formulation, model structuring, review of alternative approaches, model testing and validation, etc.

In reviewing the development and ultimate assessment of what transpired in Project CLEAR, we have to consider the major factors under which the project was initiated. Among these was the fact that President Truman had already declared that the military services would integrate. Whatever manpower directives would follow from that order would have to be defensible to the many expected supporters and opponents of this major policy change. No studies directly applicable to this issue had been conducted; new research would thus have to be undertaken.

General Maris' memo to ORO of 29 March 1951 established the deadline of 1 July; the appropriate duration of such an important study in more normal circumstances, whether via social research methods or operations research or a combination of the two, would surely have been more than the requested three-month turnaround. Any potential approaches that might have been pursued, had there been a longer time available to achieve the objectives of the project, would have had to be abandoned under the unrealistic deadline imposed by political imperatives.

The report, ORO-T-99, was delivered precisely on the appointed date of 1 July 1951. Briefings were given at Vice Chief of Staff level and Secretary of the Army level on 13 July and 23 July. At the conclusion of the latter briefing, Chief of Staff Lawton Collins announced that integration would be initiated in the Far East Command; also Project CLEAR would be extended to include attitude surveys in the US, combat performance in Korea, review of troop integration ratios, and study of interracial social contacts at and near US Army posts.

What were some of the elements that might have been pursued had there been more time available to the project's leadership? Certainly, this could have included case studies of a variety of integrated personnel structures of both support and combat units. Integration impacted not only the military personnel but also their families; how would they react and what actions might be undertaken to minimize incidents that likely would begin to occur, particularly at and near posts in the South? Such studies would have taken at least a year to structure, observe, and analyze. From the perspective of operations research, the rush to report precluded the possibility of adequate problem definition, model structuring, reviewing alternative approaches, data collection, model testing, considerations of validation, and the opportunity to analyze fully a new and revolutionary military and social policy.
Overall, then, we believe that Project CLEAR was an example of the successful achievement of major operational objectives, with significant analysis support provided by social-science research methods. Bogart [11] believed that a “facade” of OR methodology was provided by assigning the administrative control of the project to a recognized OR organization, which then delegated the structuring and conduct of the study to social research groups. But Project CLEAR served as a start in filling a large vacuum of studies needed to suggest and support a number of possible routes toward the development by the Army of more complete and optimal manpower utilization policies.

In its 1967 foreword to the unclassified, publicly released report on the project, it was said by RAC that Project CLEAR should be considered “a pioneering effort in the application of operations research to social problems” and that the organization of the effort “represents a team approach to the Army’s problem of the most effective utilization of its manpower” [9]. Project CLEAR raised a number of important questions about the development and application of operations research in the early postwar years. The formal development of operations research had come from the immediate need to develop solutions to the tactical problems that had arisen during wartime, such as submarine search, transatlantic merchant marine fleet configurations, weapons allocation strategies, and search and rescue.

The utilization and effectiveness of combat troops in the critical stage of the Battle of the Bulge had presented the Army with the emergency supplementation of its front line troops by “Negro” troops, a break with long-term and persistent policies to maintain segregated “Negro” organizations, and particularly to assign “Negro” personnel to non-combat support roles. Beyond World War II, the broad question of how to best manage human resources required by the armed services was to become and continue to be, a major focus of military operations researchers.

The role of operations research and the social research disciplines in addressing early post-World War II military issues depicts the role and conflict between powerful social mandates (segregation in both social and institutional contexts) and the overriding perceived need for rapid social accommodation to national need to meet the emerging threat of the Cold War. National leaders thus saw the immediate urgency for minimization of the social stresses of segregation and the maximum utilization of military manpower.

5. Postscript

The last major all-black Army unit was the European Command’s 94th Engineer Battalion. It was deactivated in November 1954, a bit more than a year after the cessation of hostilities in Korea and several weeks following the formal announcement by the Secretary of Defense that segregation had ended in the US Army. This was just six months after the United States Supreme Court had ruled in Brown vs Board of Education that forced racial segregation in public schools was unconstitutional and approximately one year before the Montgomery, Alabama, bus boycott. Immediately, the Army went very public with pride in its new racial policy. The official Army position was most assuredly in support of increased combat effectiveness and even more economical operations from the dismantling of segregation.

More importantly, it is said in many circles today that the United States Army has
become the most successfully integrated large institution in the country (e.g., see [4]). This is a major accomplishment considering its long history as a hierarchically, seemingly rigid and excessively tradition-bound organization. It would seem incredibly hard to convince the “average” United States citizen of the World War II era that these circumstances would eventually come to pass.

Over its 13 year life, ORO was a continuing and positive force in advancing military OR and OR in general [14]. Through formal studies and numerous sponsored conferences, ORO was actively involved with a full range of Army study topics, including air operations and air defense; guerrilla and unconventional warfare; tactical, intra-theater and strategic mobility and logistics; weapons systems analysis; civil defense; intelligence and psychological warfare; and, overall Army readiness for operations in a complex national security world.

In 1961, The Johns Hopkins University, following a disagreement with the Army over management, withdrew from the contractual relationship. At midnight on 31 August 1961, the Johns Hopkins University Operations Research Office ceased to exist. Its activities were transferred to the newly formed Research Analysis Corporation (RAC), a Federal Contract Research Center. Although the great bulk of RAC’s work would be done for defense agencies, RAC diversified its capabilities and its clients to include the White House and the National Security Council; the Department of Defense; nine other governmental agencies with national security interests; some forty other governmental agencies of all levels; and private foundations whose primary interests lie outside the field of national security [15]. In 1972, the General Research Corporation (GRC), a for-profit organization, bought RAC and partly took over its staff, physical assets, and contract relationships with the Army and other RAC clients.

To this day, the Human Resources Division of the Office of the Deputy Chief of Staff for Personnel twice a year sponsors the Sample Survey of the Military Personnel (SSMP), which is performed by the US Army Research Institute for the Behavioral and Social Sciences [16]. The SSMP, formerly called the Personnel Survey of the Army, has been conducted regularly since 1943, and is used to collect information on demographics, as well as on the views of soldiers on various topics, including quality of life, morale, career issues, and the like [17]. Equal opportunity, race relations, and gender relations questions are regularly included in the survey so that the Army leadership can monitor trends in these areas and take corrective action where necessary.

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