AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D. C. 20523

BIBLIOGRAPHIC INPUT SHEET

FOR AID USE ONLY
Batch 40

1. SUBJECT CLASSIFICATION

A. PRIMARY
Agriculture — AE30-0000-G831

B. SECONDARY
Development--Turkey

2. TITLE AND SUBTITLE
Rural Development Research Project,general description and evaluation

3. AUTHOR(S)
Frey,F.W.; Hyman,H.H.

4. DOCUMENT DATE	5. NUMBER OF PAGES	6. ARC NUMBER
1967	52p.	ARC TU301.3409461.F893

7. REFERENCE ORGANIZATION NAME AND ADDRESS
MIT

8. SUPPLEMENTARY NOTES *(Sponsoring Organization, Publishers, Availability)*
(In Rural Development Research Project,rpt.no.1)

9. ABSTRACT

10. CONTROL NUMBER
PN-AAC-552

11. PRICE OF DOCUMENT

12. DESCRIPTORS
Error analysis
Measurement
Sampling theory
Statistical distributions
Statistical samples
Surveys
Turkey

13. PROJECT NUMBER

14. CONTRACT NUMBER
CSD-811 Res.

15. TYPE OF DOCUMENT

AID 590-1 (4-74)

GENERAL DESCRIPTION AND EVALUATION

Report No. 1

Rural Development Research Project

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I. INTRODUCTION

The purpose of this report is to furnish a basic introduction to the Rural Development Research Project, a survey of approximately eight thousand Turkish villagers carried out in the summer of 1962. The report has two major parts -- a description of the procedures by which the data were gathered and a general examination of the accuracy of the survey findings. A very brief final section outlines the contemplated types of analysis to be performed on the data.

The section entitled "Surveying Peasant Attitudes in Turkey" was written by the first author and is a revised version of an article which originally appeared in the Public Opinion Quarterly in 1963. The initial version of the section entitled "Checks on the Accuracy of the Survey Findings" was originally written by the second author and appeared in a Preliminary Report submitted to the project's sponsors but not generally released. It has been slightly revised and updated by the first author. All other comments in the report are also by him, and his is the responsibility for any errors or interpretations contained herein.

II. SURVEYING PEASANT ATTITUDES IN TURKEY

Policy-maker and scholar alike are becoming increasingly aware of the vital attitudinal components in the process of "modernization" or "development." One community cuts the costs of school construction in half by getting voluntary participation in building activities, while another apparently similar community is unable to mount the same effort. In two nearby villages, one evinces great internal "demonstration effect" from the introduction of a new crop or novel tool while in the counterpart village the innovation "doesn't take." In one region, masses of people resist birth control, subsidize the shaman, shun the school teacher, suspect governmental offers of aid, and chafe under the mildest discipline of modern institutions, while seemingly similar masses in a comparable region do exactly the opposite. To understand such situations and change them to advantage the policy-maker urgently needs information about the relevant attitudes of the citizens of his concern. He also needs better theories about the relationships between one attitude and another, between attitudes and behaviors, and between behaviors and social organization. Consequently, his demand for studies of "the social and political aspects of economic development" is rapidly intensifying.

To secure such information, even in the most remote lands, the policy-makers of the developing society (or those aiding it) have increasingly been turning to the social scientist--to the survey researcher in particular. Not occasionally, however, the help that can readily be offered is limited compared to that which can be afforded in the modern societies where our techniques were created and to which they presently are best adapted. In the under-developed world the difficulties in obtaining desired information are obviously great, and

the difficulties in its interpretation are compounded by the dearth of supporting and background materials. As a result, there appears to be an especial need for those who have confronted interesting problems of survey design and execution in emerging nations to share their experiences, insights, and methods with others in the field [1]

History and Sponsorship

A brief comment on the history of the project is perhaps useful, for it reveals something of the growth pattern of survey research in one developing nation. The essential trend has been from small-scale, ad hoc, foreign sponsored, and institutionally focused investigations to large-scale, continuing, domestically sponsored, and comprehensive researches. The milestones passed en

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[1] The survey to be described was officially christened the Rural Development Research Project by the U. S. Agency for International Development. Elsewhere it has been styled the "Turkish Peasant (or Village) Survey." The present author first proposed the project to the Turkish government and AID in August 1961, strongly helped and encouraged by Dr. George W. Angell, Jr., and Dr. Paul Leubke, then of the AID Mission in Ankara. It is a simple truth and gratifying duty to state that without the imaginative, persistent, and venturesome support of both these men the survey would never have materialized

The team of consultants created to guide the research effort consisted of Professors Herbert Hyman and Sloan Wayland of Columbia University and Professors Daniel Lerner and Ithiel de Sola Pool of M.I.T. The author was chief of the consultant party. The profound and pervasive contributions of Hyman, Wayland, Lerner, and Pool to nearly every facet of the investigation far exceed the possibilities of brief recapitulation here. Moreover, in addition to their expertise, the project profited in many ways from the great personal good will and esteem that these consultants had established in Turkey.

Another crucial figure in the main cast of characters was Dr. Sefik Uysal of the Research and Measurement Bureau of the Turkish Ministry of Education. Dr. Uysal performed with skill and devotion the extremely difficult role of the immediate Project Director. The Research and Measurement Bureau, advised by Dr. Angell and headed by Mr. Ibrahim Yurt, was the agency that carried out the project, handling innumerable difficult problems with great ability and energy in the process. Without its excellent facilities and staff to bear major responsibility for the effort, the survey might have been still-born.

route to the present study reveal this trend. In 1950, the Bureau of Applied Social Research at Columbia University commenced the series of studies of communications behavior in the Middle East that have been so ably reported in Lerner's The Passing of Traditional Society.[2] In Turkey some 300 interviews were obtained from urban and rural Turks resident in Istanbul, Ankara, and Izmir Provinces, sites of the country's three largest cities. Then, in 1957 - 1958, while Herbert Hyman of Columbia was a Visiting Professor at the Political Sciences Faculty of Ankara University, he and his associates carried out a comparative survey of the values of college students at the Political Sciences Faculty and at Robert College in Istanbul.[3] Building on this base, in 1959 the present author and his co-workers, with the cooperation of the Turkish Ministry of Education, proceeded to execute a national sample survey of the basic value systems of students in Turkey's public high schools (lycee-level schools).[4] This seems to have been the first national attitudinal survey performed in Turkey

The success of these more limited but increasingly ambitious ventures led us to believe that it was possible to tackle an attitudinal study of the vital core of Turkish society -- its peasant mass. More than two of every

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[2]Daniel Lerner, The Passing of Traditional Society, Glencoe, Ill., Free Press, 1958.

[3]Herbert H. Hyman, Arif Payaslioglu, and Frederick W. Frey, "The Values of Turkish College Youth," Public Opinion Quarterly, Vol. 22, 1958, pp. 275-291.

[4]The final analysis and reporting of this survey carried out by Frederick W. Frey, George W. Angell, Jr., and Abdurrahman S. Sanay is currently in progress. A few political findings are presented in Frederick W. Frey, "Education and Political Development in Turkey," in Robert E. Ward and Dankwart A. Rustow, editors, Turkey and Japan: A Comparative Study of Modernization, Princeton, Princeton University Press. Copies of the instrument used will be forwarded on request to the author.

three Turks are villagers living in rural communities of 2,000 or less population. The nation is currently in the anxious "second stage" of its contemporary revolution; having largely accomplished the modernization of elite elements, it is attempting to bring its peasantry into active social and political participation on supra-village levels. Information about peasant attitudes and conditions of life -- more profound than that obtained by the national census and more general than that garnered from the few good anthropological studies -- is urgently required. Though the problems of a national attitudinal survey of the Turkish peasantry were numerous and recalcitrant, both the potential value of the results and the achievements of previous surveys argued for the attempt.

Support for the projected study of Turkish villagers was obtained jointly from the government of Turkey and from the U. S. Agency for International Development.[5] The entire effort proceeded with good cooperation on both sides -- cooperation that was greatly facilitated by the prior smaller-scale survey experience that many of the key Turkish people had obtained in the course of the previously listed research efforts.[6]

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[5]Though they were less directly involved in the details of the survey, the support of several other persons and agencies was crucial for the project. The Program Office of the AID Mission in Ankara, directed by Alexis Lachmann, spotted the proposal, saw the possibilities, and stuck its neck out to push it through official United States governmental channels. On the Turkish side, as will be explained in more detail, the Social Planning Division of the State Planning Organization, headed first by Dr. Necat Erder and then by Dr. Evner Ergun, was an invaluable source of strength and counsel. Finally, Dr William Wrinkle, Chief of the Education Section of AID in Ankara, ably helped the enterprise over several crises.

[6]We are indebted to Milton Lieberman and Joel Tucker, statisticians working with AID in Ankara, for useful comments on the sample design. Tucker, in particular, was of great service in devising the proportionate sampling scheme.

One further point regarding sponsorship may be of some interest. In any national survey of this scope there are bound to be a thousand contacts with various officials and organizations in the host country. This study was no exception. There was a dramatic bandit scare in several eastern provinces while the interviewers were in the field, stimulating one apprehensive governor to insist that gendarmes accompany our interviewing team into the villages (a service we were adamant in refusing). In another case, a county prefect (kaymakam), despite our explicit admonitions to the contrary, alerted the peasants in the selected village of his county to the fact that our team was coming. Once or twice local police raised questions about the operation even after being shown the elaborately official credentials with which we armed our groups for just such emergencies. Queries were received from other sectors of the central government despite our advance notices of what we were about. Two minatory and misleading articles appeared in the popular press. Finally, we were constantly aware of the sensitive and possibly volatile character of the investigation, especially if a few unscrupulous individuals should espy a chance for advantage through attacking it.

To forestall untoward developments, to protect ourselves against a swarm of intrusions during our time of strenuous technical activity, and to summon expertise greater than ours in dealing with delicate political situations, we followed a pre-planned strategy of getting a well-located and powerful Turkish governmental agency to act as our official liaison and buffer in all such matters. We were extremely fortunate in having the Turkish State Planning Organization assume this burden and handle it masterfully, leaving our nascent survey organization generally free to concentrate on the demanding technical tasks of the research. Early attention to this inevitable political side of large-scale survey research in most emerging nations often can prevent the bitter and frustrating embroilments that seem always to erupt when other demands are most pressing.

Sampling

The basic population in which we were interested was, as has been said, the Turkish peasantry -- the "villagers" (köylüler), as they are called in Turkish. Adopting the census definition of a "village," we desired a sample of all Turks sixteen years of age or over resident in legal communities of under 2,000 persons.[7] Itinerants, the institutionalized (including those in military service), and those mentally or physically incapable of responding to an interview were excluded from the defined population.

The fundamental sampling unit was to be the individual villager, or peasant, and not the family or the household head. Even so, the study was constructed so that we would emerge with three separate samples rather than merely the one sample of the peasantry. Our teams traveled to 458 different villages, completing in each case a separate schedule of information about the village as a whole, thus giving us, after some statistical adjustments, comprehensive data on a sample of Turkish villages. Moreover, in addition to the designated set of interviews with the sample of villagers in each of these villages, our teams also were instructed to obtain a series of elite interviews in every sampled village. These additional interviews were four: with the village head man (muhtar), with the village religious leader (hoca or imam), and with the legal wife of each, regardless of whether such individuals turned up in the regular sample. Thus, the investigation was constructed so as to yield 1) a regular sample of Turkish peasants, 2) an elite sample of certain formal village leaders and their spouses, and 3) a sample of the village communities of the country. The findings on the two added samples were obtained at a very low marginal cost and markedly

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[7]The only legal communities of less than 20,000 persons that would not be included in our defined population would be those extremely few places that had become county seats (kaza or ilçe merkezleri).

increased analytic opportunities.

The sampling design was that of a two-stage cluster sample, with the first stage unit being villages and the second stage unit being villagers. We secured the village information blanks of the just-completed 1960 national population census from the Turkish General Directorate of Statistics in return for punching those data onto IBM cards. This provided us with a frame listing all 35,000 villages of the country along with the location and population of every listed community. Three bases of stratification were simultaneously applied to these villages: regional location, proximity to an urban center, and size. Actually, the first two criteria of stratification -- region and urban proximity -- produced fourteen strata when combined. Then, village size was taken into account in the fullest way possible by giving each village a probability of entering the sample proportionate to its size. In addition to accuracy, a cogent reason for using a proportionate sampling scheme was that we wanted to have an approximately constant "take" in each village visited, i.e. a constant number of interviews. This was necessary to ease administration and to enable us to structure the operation in such a way that our teams could go into a village and complete their assignment in the course of a single day, thereby greatly reducing the hazard of inter-respondent contamination in these "little communities" of Anatolia. It served as well to simplify problems of housing and maintenance for the interviewers.

The desired sample size was deliberately set quite large -- approximately 7,000 respondents in the regular sample plus another 1,500 in the elite sample. Behind this tactic was the realization that internal subgroup analysis was to be of prime importance. Complex, disproportionate sampling from many strata so as to yield enough crucial subgroups was impossible because of insufficient prior information about many aspects of the population and because we were not in a position at the beginning to identify with full confidence all the crucial

groupings. Since the basic focus was to be the attitudinal modernization of a largely traditional population, it was clear that a good deal of deviant case analysis would be required. To maximize the opportunities for this type of analysis in a situation of considerable theoretical and practical uncertainty, a large sample seemed essential.

The over-all sample of villages was randomly divided into two independent subsamples. Several considerations urged this procedure even though it slightly increased travel costs. Probably the paramount reason was again our concern regarding the political sensitivity of the enterprise. It was always possible that some untoward event could occur during the two months we would be in the field and terminate the entire project. By establishing two independent subsamples and completing the first before commencing the second, we reduced the risk of such a calamity by 50 per cent (assuming a probability of such an occurrence that was uniform through time). Once the first month of field operations was completed we would have obtained a satisfactory sample of well over three thousand interviews and could anticipate valuable results even if an interruption should befall us in the second month.

Apart from this protection against a premature interruption of the survey, the division of the over-all sample into two equal and independent subsamples also provided several other advantages. It gave us a useful and economical estimate of variance. It provided all concerned in the project with a welcome intermediate goal which acted, both psychologically and operationally, to reduce the burden of such a large-scale venture. And it allowed us to produce reliable early results, based on the first subsample, that proved to be of great use to the policy makers supporting the project in their justifications of it before more skeptical colleagues and to us, as the directors of the survey, in getting a head start in laying out the detailed agenda for analysis. (In fact, the

division into subsamples was even useful in dividing our computer operation into two parts of less than five minutes' running time each, thereby giving us more computer time for less money.)[8]

The greatest sampling risk was that of the second-stage procedure. Initially, we were quite confident that we could sample the villages effectively. The outstanding problem was obtaining the second-stage sampling frame -- the list of adult villagers resident in each of the 458 selected villages. No adequate listing of individual villagers corresponding to our defined population existed for all the villages in our sample, nor was it possible for us to construct such lists in advance. Hence, we relied on our ability to have our interviewing teams themselves generate the requisite second-stage sampling frame in the field on their arrival in any designated village. Much of our planning revolved about this calculated risk of the on-the-spot, team-generated second-stage sampling frame. Without an acceptable solution to this problem the whole enterprise would have been impossible.

Several factors influenced our thinking on this matter. First, we knew of three types of lists of villagers that were legally supposed to be maintained for each village in the land. One was a list of all adults over twenty-two years of age -- the list of eligible voters. The second and third were listings of the entire population of each village, to be kept by the nearest Vital Statistics branch of the central government and by the village head men. Detailed preliminary investigation indicated that the last two lists were frequently not kept at all or were in very haphazard condition. The voting lists were better maintained but were sometimes not available to us in time, for a wild variety of reasons.

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[8]The data processing is being done at the Computation Center of the Massachusetts Institute of Technology, to whose personnel we are grateful for much special effort and useful advice.

Moreover, they did not include the sixteen- to twenty-two-year-old age group, which we definitely wanted in our sample.

In any event, we secured wherever possible any or all of the three aforementioned lists and provided our teams with these before they visited the villages. In about 80 to 90 per cent of the cases the teams were thus able to use previously furnished lists as a base and concentrate first on deletions from those lists (those dead, moved, or incapacitated since the list's preparation, errors, duplicate citations, etc.) and then on additions to the lists (those come of age, moved into the village, previously omitted, in a desired group not covered by the list, etc.). This information was obtained by going over the lists, name by name, with the village head man, the council of elders, and other knowledgeable villagers. Our confidence in this procedure increased when we discovered, not surprisingly, that the lists in the larger villages were the more complete and that in the smaller villages, where the lists were more likely to be faulty, every adult usually knew all other adults in the village. In fact, in the entire sample, 94 per cent of the males reported knowing everyone else in their villages, and village leaders proved to be especially well-informed in this respect.

In about 10 per cent of the villages, the teams had to prepare a complete new list -- no list of any kind could be obtained in advance The median-sized village in Turkey has approximately 260 persons aged sixteen or over. The villages without lists were almost invariably smaller than this. In such cases the team leader and his assistant sat down with the muhtar, the council of elders, and anyone else who was likely to prove helpful and prepared the appropriate list of adult villagers, prodding the memories of the respondents (as instructed) by pointing to houses and asking about occupants, by inquiring after relatives of those named, by asking after the young people (sixteen to nineteen) and the aged, by mentioning the possibility of outlying domiciles (most villages are tightly clustered, except

in coastal areas), and so on. The teams were also greatly aided in this task by knowing in advance the census estimate of the total population of the village and that about 54 per cent of that total population, on the whole, was likely to be sixteen years of age or over.[9]

On completion of the listing, the team leader numbered the set of names obtained and then, using a random starting point and an interval that we had computed in advance on the basis of census information, drew the sample of respondents for the instant village.[10] Team leaders were cautioned about avoidance of trend and periodicity in the frame and were observed carefully during three major pre-tests to be sure of their comprehension of the entire process. Full written instructions as to sampling procedure were furnished to all team leaders. All other team members were also instructed in the sampling procedure, both as a check on the leader and as a form of personnel insurance should a team leader become incapacitated. Moreover, a detailed report form listing such things as

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[9]The timing of interviewer activities on arrival in the village worked out quite neatly. The team leader and one male team member, who acted as his assistant, consulted the muhtar and the council of elders and prepared the sampling frame. While the muhtar was thus occupied, one of the female interviewers questioned the muhtar's wife, conveniently assured of noninterference from that matron's otherwise-occupied husband. The remaining male and female interviewers sought out the imam and his wife and interviewed them separately but simultaneously, again minimizing the possibilities of interspouse interference among this elite group. When these interviews (with respondents who could be identified before the village sample had been prepared) were completed, the interviewers returned to the team leader, who by that time had their regular sample assignments ready for them. Then, while the ordinary team members proceeded with their regular interviews, the team leader personally interviewed the muhtar, with whom he had already established considerable rapport during the list preparation, and also completed a schedule of ecological information about the village.

[10]The central computation of the sampling intervals and random starting points was simply another control over interviewer performance. We could easily have had the team leader himself compute the appropriate interval for use in the given village and select his own random starting point. In fact, we succesfully employed such a procedure on two of the major pre-tests. In the actual field operation we chose to ensure a slight reduction in the risk of a sampling mistake by giving starting points and intervals to the team leaders even though the price of this was a very slight unwanted fluctuation in the constant "take" per village.

callbacks, terminations, substitutions, interviewer assignments, etc., was completed by the team leader for each village and submitted to headquarters with the sampling frame and finished interview schedules for each village visited. Every list and report form from each village was carefully checked by the author as it came into the survey headquarters. Listing mistakes and other errors in executing the sampling were practically nil -- just a handful of cases of failure to substitute when substitution was desirable.[11]

No perfect check on the accuracy of this second-stage sampling frame is available, but several partially confirmatory procedures, both general and particular, were employed in addition to those just described. First of all, the obtained listings were checked against those predicted on the basis of the 1960 census returns. According to the 1960 census, we should have secured an average of sixteen desired respondents per village. However, the census estimate was based upon a defined population somewhat larger than ours in that it included soldiers, those physically or mentally incapable of being interviewed, transients, etc. We obtained an average of 15.3, which, considering everything, was extremely close to the census figure.

Second, several spot checks of the sampling procedure in particular villages also indicated a very low level of error, as did repeated conversations with assorted team members conducted individually while the operation was in the field. Third, the marginals from the study usually very closely match the relevant census and other statistical materials that exist. Hence, all in all,

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[11] Substitutions, according to a strictly prescribed rule, were permitted only in the rare cases when a person clearly outside the defined population had inadvertently entered the sample. For example, if an interviewer found, on locating the respondent, that he was deaf or mute and physically incapable of responding to the instrument, but had not been properly excluded from the list on this basis, the interviewer would consult the team leader and a substitution would be required. This occurred, as we have said, only rarely, and the few errors that did emerge in this procedure all were cases of failure to substitute rather than of faulty substitution.

the placing of considerable confidence in the sampling procedure seems warranted (See Part III of this report). Over all, 94.8 per cent of the desired sample was successfully interviewed, the refusal rate being especially low -- less than 1 per cent. Ninety per cent of the interviews were obtained on the first visit and 10 per cent on callbacks. The lack of geographical mobility in a relatively traditional population can be an important compensatory asset to survey research in developing countries.

The final aspect of the sampling that is of interest is that an interpenetrating sampling procedure was employed within each village. Since we were conducting a survey under novel and arduous conditions with previously inexperienced interviewers, we desired some special verifications of interviewer performance. One of these checks was obtained by assigning respondents to interviewers in a random fashion so that between-interviewer variations in results, beyond calculable chance expectations, would alert us to the possibility of faulty interviewer performance. Failure to find such extreme differences was another factor increasing our confidence in the findings.[12]

On the whole, the sampling design and procedures developed for use among the village population of Turkey -- a country that lacked any previously established survey organization (other than a national census) -- seem to have proved effective. It is indubitably true that certain fortuitous circumstances existed in Turkey and that in a number of developing countries this brand of research is manifestly impossible at the present time: there had been a recent and reasonably accurate census in Turkey; the State Planning Organization was sympathetic and strategically located; a cadre of village teachers suitable for use as interviewers existed; and so on. However, some fortuitous circumstances

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[12]The mode of interpenetration of course had to take account of the bounds of sex and region that delimited an interviewer's activity.

of this type are to be found in most emerging nations, and the Turkish case presented its share of special difficulties as well as advantages (rough terrain, bandits, political sensitivity, zones of military security, etc.). Even more important, alternative approaches to adjust for the lack of the specific advantages that existed in the Turkish case can often be developed with ingenuity and perseverance. Though there may be no census, the Ministry of the Interior or some other ministry may well have a list of the nation's villages. If not, such a list can often be garnered by visiting each of the provincial capitals or contacting each county seat. No State Planning Organization may exist, but the Ministry of Education or of Agriculture, or some ad hoc combination of ministries or other governmental body may well be able to act as an appropriate sponsor. Village teachers may not be available, but organized scouting of rural areas may still yield a sufficient number of suitable interviewer candidates. The essential point we stress is that problems of the sorts described can be anticipated and that satisfactory solutions to these problems would frequently seem to lie in the types of action we mention, even though the specifics must be varied according to the situation. There would appear to be many emerging nations around the globe in which procedures analogous to those reported here could be applied with high prospects for success.

The Survey Instruments

Just as the sampling plan was designated to furnish three separate samples (of peasants, village elites, and villages), so the survey instruments utilized in the project were of three kinds: 1) a basic interview schedule applicable to all respondents, 2) supplementary interview schedules for each of the four types of elite respondents, and 3) a "village information sheet" (completed by the leader of the interviewing team) furnishing important ecological data about the village as a whole.

The basic schedule administered to every respondent was developed in order to ensure a broad and fundamental level of comparability among all groups sampled. Other interests that were specific to the elite subgroups were handled through the use of supplementary schedules.

The village information sheet had several special purposes in addition to the obvious one of yielding general information about a sample of Turkish villages. Among other things, it was arranged so as to provide independent, summary village information on many matters concerning which we had also queried our individual respondents (e.g. educational level, radio ownership, mosque attendance, etc.). Thus, besides granting the opportunity for a rough and gross check upon the accuracy of respondent reports, this device permits us, for example, to distinguish between the radio owner in a community of very few radios and the radio owner in a village with a substantial number of radios, or between illiterate men in villages of high and low literacy. In more general terms, since the extensive ecological information regarding his village was punched onto each respondent's set of data cards, one gets the valuable and all too rare opportunity to examine, in considerable detail, different types of peasants located in different, independently ascertained, types of community settings.

Finally, considering our approximately sixteen respondents from each of the 458 villages in the sample as a small, but random, representation of opinion in that village, and exploiting the large number of villages covered, the way is opened to a promising analysis of the conditions under which various types of intra-village agreement and disagreement are to be found.

The basic interview schedule that was forged after weeks of discussions (and even thought) can best be labeled an omnibus instrument. This is not simply a euphemism for the fact that "there is something in it for everybody." Since formulations of their interests were solicited from some twenty-eight different

Turkish agencies, from more than a dozen AID sections, and from eight or ten other organizations, and since our own theoretical hypotheses concerning development were also supposed to occupy a prominent portion of the instrument, a torrent of suggested topics and questions inundated us at the start. Under scrutiny, however, many of these proposals were seen to coincide, overlap, or, at least, be mutually supportive. Condensation of the many desired topics of inquiry into eight basic areas proved feasible and rewarding. These areas, which consequently became "sections" of the basic interviewing schedule, were: communications, personal background, attitudes toward development, other relevant psychological traits, socialization, position in and conception of the environing social structure, politicization, and religiosity.

The underlying rationale for these classifications can be represented geometrically as a series of three concentric circles. In the innermost circle -- the heart of the study -- was the section on attitudes toward development. Here we investigated the respondent's experience of various social services, his demands for these services, and his assignments of responsibility for their provision. We ascertained his acceptance of innovation, both in general terms and in relation to specific types of activity and likely sources. We inquired after his conception of the most important problem facing his village and what could be done about it. His attitudes toward cooperation with his neighbors in community projects, as well as his past experience of such cooperation, were examined. More specific matters, such as his image and evaluation of urban life, his notions of ideal family size and ways to preserve it, his rating of the most useful portions of the primary school curriculum, his conception of the direction of changes, if any, in the distribution of wealth, and other similar topics were explored. In short, the crucial interests at the center of the instrument were: 1) What were the respondent's attitudes toward development, change, and innovation? 2) What was the nature of his social demands, expectations, and satisfactions? And 3) to what agencies, including himself, did he assign responsibility for fulfilling these

expectations?

To comprehend any given type of peasant response to this central area of interrogation, additional information about other personal characteristics of the respondent seemed clearly necessary. Hence, the second, or middle, concentric circle can be considered as bearing the title "related personal characteristics." It contained the basic instrument sections on personal background (age, sex, mother tongue, education, etc.), on other relevant psychological traits (tolerance of nonconformity, tolerance of frustration, empathy, guilt or shame orientation, basic values, fatalism, etc.), plus the more limited sections on politicization and religiosity.

The outermost circle represents those sections of the instrument that sought information about the peasant's interactions with other people, looking in part to these for both causes and consequences of the attitudes and backgrounds already established. A village, for example, may have a number of potential innovators within its walls, but these more creative souls may be so poorly located in the social structure of the village that either no demonstration effect or even a negative demonstration effect is produced by their sponsorship of change. Hence, a section on social structure and the villagers' personal perception of it was included. So, also, was a section obtaining much information about the respondent's communications behavior, vis-à-vis both the mass media and his face-to-face contacts. Lastly, a section on the socialization of the villager -- by whom and how he was raised and how he was raised and how he views the training of his own offspring -- was included to complete the desired portrait of the peasant. Hopefully, from the total instrument of about 100 questions requiring just over an hour, on the average, to answer will issue information permitting a rather complete initial assessment of the attitudinal characteristics of the Turkish villager as they relate to modernization.

Naturally, in constructing the instruments we encountered the usual problems of cross-cultural research, namely, those centered on the efforts to maintain stability of stimulus and of response interpretation in divergent settings. Since these problems, and the main techniques for vanquishing or reducing them, are well-known, we shall not broadly enter into them here. One problem of this type that may warrant brief mention, however, is that we were confronted with the fact that a number of our respondents spoke only an unwritten language -- Kurdish. Hence, a rather special translation problem presented itself. Fortunately, the Kurdish speakers were geographically highly concentrated. We secured a number of very able bilingual (Turkish-Kurdish) interviewers, trained them carefully as a unit, and relied upon their real prowess at simultaneous translation, though inevitably sacrificing thereby, some control over interviewer performance.

Two other matters also caused us some extra concern worth recording. One was that illiteracy prevented the use of list cards by the respondents, which meant that we were restricted in the types of questions we could ask. In multiple-choice questions, the number of alternatives had to be kept especially low and their formulation exceedingly brief and simple. Second, besides many general problems of appropriate wording for an audience of highly limited experience, in crucial sectors of questioning we ran afoul of the fact that there was no nationally understood word, familiar to all peasants, for such concepts as "problem," "prestige," "loyalty," and so on. Even though Turkish dialectic variations are slight, different basic words with somewhat different connotations are used in various regions. Since the notions involved were often of utmost importance and could not justifiably be abandoned, two main research tactics were open to us: the use of synonyms or the use of explanations (definitions). Synonyms had the disadvantage of clearly admitting variations in frame of reference of unknown or appearing formidable. In the half-

dozen questions where this problem was acute, we attempted, on the basis of a specific pre-testing of the alternatives, to select the least damaging procedure and then to continue to probe for possible warping of results throughout the field and specific "face sheet" reports on this matter were most helpful (indicating, for example, that the words "problem" and "prestige" were well handled through synonyms in one case and defition in the other, but that "loyalty" /bağlılık/ remained rather troublesome). Generally speaking, in a novel project of this type we devoted a larger portion of our resources than is usual in the West not only to training and morale but also to furnishing ourselves with several sources of "feedback" about the nature and success of our operations.

Training and Administration

One of the best ways of forestalling trouble in survey research is clearly the careful selection, training, and use of personnel. Attention to personnel considerations is particularly important in developing nations with scant experience of survey techniques. A vivid gallery of negative illustrations springs to mind, perhaps the most recent being among the best. In Turkey, just prior to our going into the field with the project under discussion, a pilot study for a different enterprise -- a forthcoming agricultural survey -- was made in a mountainous region near the Black Sea. The sampling plan was very well prepared, but, unfortunately, regular Turkish census enumerators had to be employed for the interviewing, which was much more subtle than that of the census. When the survey directors delved into the interviewers' manner of operation they found that, despite explicit instructions to seek out the respondent in his immediate location, wherever that might be, the interviewers had developed a different procedure that yielded greater economies of effort (and, alas, of reliable information). On arriving at a village, the interviewers summoned the village head man (muhtar) to them in tones befitting their self-perceived station (that of important government officials)

and dress (dark suit, white-on-white shirt, and necktie). The transaction with the head man was appropriately terse and economical. They simply inquired after the nearest ample and shady tree beneath which they could establish themselves. Then they presented the head man with a list of the villagers whom they wanted to interrogate, much like the Grand Jury at the Assizes. The head man thereupon scurried along to inform the selected respondents of The Call, and the alarmed peasants, pausing only long enough to don their own Friday-best, duly appeared, were questioned, prevaricated, and withdrew (one suspects, rear end first in the ancient Ottoman fashion). Despite an excellently prepared sampling plan, the pilot-study results were largely worthless.

Knowing that the interviewer-respondent relation, always the vital front line of survey research, was going to be more critical than ever in our effort to study an unsophisticated population using previously inexperienced interviewers, we devoted much work to the recruitment, training, assignment, and support of our interviewing staff. Looking at recruitment first, several considerations guided our planning. We knew from our familiarity with Turkish culture that it would be absolutely essential to have female respondents questioned only by female interviewers. We also knew that we could not send out one woman alone as an interviewer. Our female interviewers would have to work at least in pairs with one another. While, of course, interviewing female respondents singly, they would have to travel as members of a team consisting of at least one other woman and a comparable number of men. This fact actually meshed quite well with our other plans, since we were also led to the organization of interviewers into teams by our desire to minimize intravillage contamination and to secure all interviews in a given village during the course of one day. We therefore settled on a scheme of having sixteen five-person teams in the field at a time, plus retaining roughly two teams in Ankara for replacement and emergency use. Each team

was composed of three men and two women, one of the men being designated team leader.[13] The reserve teams were used as coders.

It was imperative, we felt, that all interviewers be themselves people from village backgrounds. In no other way could the essential rapport be developed and the interviewer's report be validly used as an added check on the sincerity and veracity of the respondents. Nonvillage people would, moreover, be likely to find the conditions of work especially onerous.

On the other hand, the interviewers quite plainly had to be fully literate and reasonably sophisticated. They also had to be young and vigorous enough to withstand the very real physical strain of the job and they had to be, as explained, of both sexes. Considering these four main criteria of village origin, at least secondary education, youth, and sex, it became apparent that the group on which we would have to rely for the bulk of our personnel was that of the village school-teachers. Happily, this was an occupational group whose summers were free and who were thus available at the only time when the field work could be done, owing to the inaccessibility of many mountain villages at other times of the year.

An initial interviewer pool of approximately 400 persons was recruited. The usual devices of circularizing appropriate institutions, such as schools of social work and teacher training, and placing advertisements in selected publications were utilized to locate candidates. One other special technique we used that paid great dividends needs individual mention here. A few months before field work was to begin we sent a team of our Turkish co-workers from the Ministry of Education out to the provinces on a talent-hunting expedition. This

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[13]The upper limit on team size was set by -- among other things -- the maximum number of people who could fit reasonably comfortably into a large Jeep or Land Rover.

recruiting team concentrated particularly on the more remote and distinctive regions, calling upon local superintendents of education there, explaining the nature of the enterprise, and asking which of the village teachers in the area would be likely prospects for such work. These candidates were then auditioned on the spot and dossiers prepared enumerating their qualifications. From this procedure we obtained a highly disproportionate number of our very best interviewers. They knew the region and its idioms and mores well. Though they never were permitted to interview in the village from which they came or were selected, they usually returned to the same general region, where their talents contributed greatly to the success we had in obtaining very realistic and meaningful interviews. In the emerging nations, field recruitment of interviewers followed by central training, even though somewhat more expensive than easy reliance on readily available urban applicants, would generally seem to be a wise investment.

Of the 400 candidates in the initial interviewer pool, some 125 individuals who seemed to offer the greatest promise were brought to an interviewer-training course in the capital that lasted a little over two weeks. On the whole, the course was similar to those given by survey organizations in the United States. It included detailed familiarization with the instruments and sampling plan, lectures and discussions on interviewing techniques, model interviews, role playing, coding practice, and pre-test field work. The administrative labor in preparing and translating training materials where none previously existed was heavy and was aggravated by the very rigid and condensed time schedule under which we were operating. Also, we could not assume moderate initial awareness of the general nature of survey operations, so that some extra time had to be spent on emphasizing the nature and importance of research and surveys in general. On the other hand, we were able to refine the instruments by following suggestions that our village-sprung interviewer-trainees made during their training.

The pre-testing of the operation in the field was deliberately made more extensive than is normal in the West. One minor and three major full-scale pre-tests, the latter involving some 300 to 400 interviews each, were conducted. The training teams were first sent out in large busses to villges near main roads. Then they were sent out to more remote villages in microbusses containing two teams each. Finally, on the third, "dress rehearsal" pre-test, jeeps and microbusses were used and quite isolated villages were contacted. This intensive pre-testing experience proved invaluable for solidifying seemingly abstract course material in the minds of the interviewers, for increasing their confidence in themselves, and for revealing unanticipated operational flaws that required correction. In fact, I should say that the greatest loss in our preliminary programming was that time pressures forced us to cram the three field pre-tests too closely together. More opportunity to go over each interviewer's performance in detail with him after each pre-test would have been immensely rewarding. It is hard to overestimate the precautionary worth of such concrete and realistic instruction.

On completion of the interviewer-training program near the beginning of July, the project moved into actual field operations. The country was divided into regions. To each region was sent a "regional coordinator," about a week in advance of the arrival of the teams. The regional coordinators, who were selected from the interviewer pool, were generally older, more experienced and established men. Many of them were educational inspectors. Once in the field it was their responsibility to contact the provincial governors and relevant county prefects in their region and establish liaison with these officials, to set up a centrally located regional headquarters to which the teams (one or two) working in the region could have constant emergency access, and to secure for each village in their region, wherever possible, the population lists, giving them to the team before it visited the village. The regional coordinator performed the logistical duties

of delivering and collecting survey instruments to and from the team, helping the team arrange its jeep transportation, forwarding mail and wages, and procuring rooms for the team when it was in the city in which he was located. Finally, the regional coordinator acted as a communications link between the survey headquarters in Ankara and the teams. He was supposed to know the location of the teams in his region at all times, and to keep us informed about his views of team morale and performance. The regional coordinators did their jobs well on the whole. The main problem that arose regarding their role was to keep them walking the middle ground between meddling with affairs properly left to the teams themselves and not maintaining sufficient contact with the teams.

We devoted a great deal of energy and attention to the establishment and maintenance of high morale among the interviewing teams. The work was hard. Each team had to do 30 villages in 60 days -- 20 interviews per village (16 regular, 4 elite). Since it was summer, many of the villages had moved women, children, and part of the menfolk to mountain encampments (called yayla) that were difficult to reach. In over one-quarter of the villages, access by jeep was impossible; horses, donkeys, and human feet were the only feasible means of transportation. In at least one case the team of interviewers, women included, had to scale a cliff with ropes to reach a mountain yayla. In another case one of our best female interviewers, whose husband was the team leader, was killed when thrown from her horse after an exhausting day's work. A few people became ill for one reason or another and had to be hospitalized. A few of the original women found the walking and climbing too much for them and had to be brought back to Ankara to work as coders, and replacements were sent. In fact, a mild shortage of female interviewers developed in mid-passage, so that the recruitment and training of new personnel continued all summer long. All these occurrences raised difficulties, some trivial and some extremely grave, that had to be met. The central staff,

which had emitted a huge sigh of relief when the teams finally completed their training and went into the field, had to revise its expectations of a respite and continue its activity almost unabated until the end of field operations early in September.

One of our most effective anchors enabling us to ride out these storms was the high morale of our interviewing corps. After concentrating on building these favorable feelings during training, we tried to do everything possible to sustain them while in the field. We diligently and promptly forwarded all mail, pay, and messages to the interviewers in order to prevent them from feeling forgotten or isolated. We developed a newspaper for them, a sort of house organ that informed the teams of what their friends and acquaintances on other teams were doing and acted as a device through which we could drop hints regarding common problems and relative performances. We encouraged the interviewers to contribute anecdotes, poems, and stories to this paper, which they did quite avidly. (Not surprisingly, many of the poems emphasized walking, tramping, marching, etc., though all with enthusiasm.) Some of the anecdotes from their survey experiences will be useful in the presentation of results, though the poems can thankfully remain the ephemeral product of a hot Anatolian summer.

It was accepted as a sacred duty for a responsible member of the survey staff in Ankara to visit every team while it was in the field, not only to check on them and investigate uncertainties, but also to show them that we were personally concerned with their problems, reactions, and experiences, and that we were not comfortably relaxing in Ankara while they toiled through the most torrid summer in forty years. We also arranged for a suitably embellished official certificate and a bonus to be given to each person successfully completing the entire field stint, and we were able,

as planned, to make this stimulating announcement in the dog days of early August when the second subsample was begun.

All in all, the impressive accuracy of the results obtained would seem to be directly related to the high dedication of the interviewing personnel -- a dedication we were at great pains to stimulate and support, though only they truly supplied it. One of the oft-cited side benefits of the project was that we would bequeath to Turkey a sizable group of well-trained and experienced village interviewers who would be of great use to the government in future work with the peasantry. All indications are that this aim was accomplished. In the long run it may be almost as important as anything else we did.

APPENDIX A

TURKISH RURAL DEVELOPMENT RESEARCH PROJECT

INTERVIEWER TEAM PERFORMANCE - RESPONSE

I. Sub-samples No. 1 and No. 2

Team Leader	Villages	Elite		Regular		Total	
		Numbers	%	Numbers	%	Numbers	%
1. Aksungur	29	96-97	99.0%	423-451	93.8%	519-548	94.7%
2. Aydin	29	98-100	98.0	418-433	96-5	516-533	96.8
3. Aydoğdu	24	80-83	96.4	319-328	97-3	399-411	97.1
4. Aytekin	14	46-46	100.0	216-223	96-9	262-269	97.4
5. Başar	29	100-101	99.0	465-468	99-4	565-569	99.3
6. Deveci	30	101-102	99.0	486-488	99-6	587-590	99.5
7. Dönmez	9	26-28	92.9	131-137	95-6	157-165	95.2
8. Işik	14	43-46	93.5	184-192	95-8	227-238	95.4
9. Karaman	27	93-97	95.9	421-438	96.1	514-535	96.1
10. Kaya	30	101-107	94.4	467-503	92.8	568-610	93.1
11. Oymak	20	63-66	95.5	293-323	90.7	356-389	91.5
12. Özkan	31	113-118	95.8	407-464	87.7	520-282	89.3
13. Şengul	32	107-112	95.5	434-447	97.1	541-559	96.8
14. Şahin	10	32-33	97.0	127-129	98.4	159-162	98.1
15. R. Turan	34	95-96	99.0	478-516	92.6	573-612	93.6
16. M. Turna	10	36-40	90.0	164-168	97.6	200-208	96.2
17. Ünlü	30	99-100	99.0	452-455	99.3	551-555	99.3
18. Yaldir	15	50-52	96.2	189-215	87.9	239-267	89.5
19. Yavuz	30	98-108	90.7	406-455	89.2	504-563	89.5
TOTALS	447*	1,477-1,532	96.4%	6,480-6,833	94.8%	7,957-8,365	95.1%

* Includes four "double" villages that entered both sub-samples, thus reducing to 443 different villages.

II. Sub-sample No. 3

(80 km. Metropolitan-Center Stratum Supplement)

Team Leader	Villages	Elite		Regular		Total	
		Numbers	%	Numbers	%	Numbers	%
3. Aydogdu	1	3-3	100.0%	16-16	100.0%	19-19	100.0%
6. Deveci	1	4-4	100.0	14-15	93.3	18-19	94.7
9. Karaman	5	17-17	100.0	69-71	97.2	86-88	97.7
11. Oymak	1	3-4	75.0	12-16	75.0	15-20	75.0
15. R. Turan	1	4-4	100.0	15-22	68.2	19-26	73.1
16. M. Turna	2	5-5	100.0	26-27	96.3	31-32	96.9
17. Unlu	1	4-4	100.0	13-18	72.2	17-22	77.3
19. Yavus	3	11-11	100.0	37-43	86.0	48-54	88.9
TOTALS	15	51-52	98.1%	202-228	88.6%	253-280	90.4%

APPENDIX B: TURKISH RURAL DEVELOPMENT RESEARCH PROJECT RESPONSE

I. Regular Sample Response

Region	Sub-Sample No. 1			Sub-Sample No. 2			Total Sample		
	Number of Villages	Respondents	Percent of Sample	Number of Villages	Respondents	Percent of Sample	Number of Villages	Respondents	Percent of Sample
I North Central	32	467	91.0%	32	488	94.8%	64	955	92.9%
II Aegean	31	459	92.7	30	466	95.3	61	925	94.0
III Marmara	18	288	96.6	17	246	90.8	34*	534	93.8
IV Mediterranean	23	329	94.0	23	333	97.1	45*	662	95.5
V Northeast	18	258	97.7	17	228	97.9	35*	486	97.8
VI Southeast	21	285	95.3	24	335	96.3	44*	620	95.8
VII Black Sea	39	544	96.3	41	591	98.5	79*	1,135	97.4
VIII East Central	23	314	90.5	21	323	97.6	44	637	94.0
IX South Central	18	269	92.4	19	257	91.5	37	526	92.0
TOTALS	223	3,213	93.9	224	3,267	95.8	443**	6,480	94.8

*One village entered the overall sample twice.

**Four villages entered the overall sample twice, i.e., entered both sub-sample number 1 and sub-sample number 2.

TURKISH RURAL DEVELOPMENT RESEARCH PROJECT RESPONSE Cont. - 2

II. Elite Response

Region	Sub-Sample No. 1			Sub-Sample No. 2			Total Sample		
	Villages	Number of Respondents	Percent of Sample	Villages	Number of Respondents	Percent of Sample	Villages	Number of Respondents	Percent of Sample
I North Central	32	113	94.2%	32	110	98.2%	64	223	96.1%
II Aegean	31	104	94.5	30	101	93.5	61	205	94.0
III Marmara	18	66	97.1	17	55	90.2	34*	121	93.8
IV Mediterranean	23	71	98.6	23	73	100.0	45*	144	99.3
V Northeast	18	58	96.7	17	55	98.2	35	113	97.4
VI Southeast	21	66	94.3	24	70	98.6	44*	136	96.5
VII Black Sea	39	126	96.2	41	133	96.4	79*	259	96.3
VIII East Central	23	77	96.3	21	63	100.0	44	140	97.9
IX South Central	18	67	98.5	19	69	97.2	37	136	97.8
TOTALS	223	748	96.0	224	729	96.8	443**	1,477	96.4

*One village entered the overall sample twice.

**Four villages entered the overall sample twice, i.e., entered both sub-sample number 1 and sub-sample number 2.

TURKISH RURAL DEVELOPMENT RESEARCH PROJECT RESPONSE Cont. - 3

III. 80 km. Metropolitan-Center Stratum, Supplementary Sample Response

	Elite			Regular		
Region	Villages	Number of Respondents	Percent of Sample	Villages	Number of Respondents	Percent of Sample
I North Central	6	22	95.7%	6	85	82.5%
II Aegean	6	18	100.0	6	80	97.6
III Marmara	3	11	100.0	3	37	86.0
TOTALS	15	51	98.1	15	202	88.6

III. CHECKS ON THE ACCURACY OF THE SURVEY FINDINGS

Surveys conducted under the best of conditions are subject to error. In the instance of this survey, the first of its kind ever conducted in Turkey, where the interviewers were inexperienced and the operating conditions severe, the problem of error becomes a matter of great concern. In addition, since the results are intended to aid in decisions on matters of important government policy and mistakes correspondingly would have important consequences, the problem of accuracy becomes even more compelling. Therefore, a great many safeguards against error were incorporated into the survey procedures. These have been described in Section II of the report and should give the reader confidence that errors were under careful control. However, the residual errors which still attach to the findings, despite all efforts to control them, should be subject to check, so that the reader can know what qualifications to apply to specific conclusions and how much confidence generally he can place in them. The evidence to be presented will demonstrate that the magnitude of errors of various types is small and that the findings of the survey are generally of very high quality. Only selected checks to illustrate the various different kinds of tests that were made will be presented. The checks were so many and various that it would require extensive presentation to treat all of them.

1. Variance from all sources as checked by equivalent sub-samples:

As noted earlier, the total sample was designed in such a fashion that two smaller independent samples were drawn. Each was composed of about 3,200 respondents and thus was adequate to represent the population of Turkish villagers, and each, by definition, was equivalent to the other. By comparing the results obtained from the two samples, we obtain a measure of the net effect of all those errors which arise from sampling, interviewing, and, in the case of free-answer questions, from coding, which would operate in such fashion as to create fluctutations or unreliability in the findings. If such errors were large, the two samples would disagree markedly. We find for the great bulk of the questions that the differences between the sub-samples are less than 4 percentage points, frequently being as little as 1 percentage point. Selected findings from this analysis are presented in Table 1 for various types of questions.

Table 1

Differences between the two sub-samples for selected closed questions, free-answer questions and interviewer ratings

Closed Ouestions	Percentage Point Differences
Percent who report leaving village once a week or more often	0
Percent who have ever seen a movie	1
Percent who report that friends are literate	0
Percent under 20 years of age	1
Percent over 60 years of age	0
Percent who report past attendance at school	1
Percent who report voting in a past national election	2
Percent who state that influence of schools on the young is "good"	2
Percent who report own occupation as housewife or housework	3
Percent who report no secondary occupation	7

Table 1 Continued

Percent who report health as "very good"	3
Percent who say it is the duty of the government to provide good water supply	1
Percent who would attend a vocational course if offered in the village	3
Percent who report that family went hungry in past year	0

Open Questions	Percentage Point Differences
Percent who report that most important problem facing village is "water supply"	4
Percent who give first mention to "intellectual or cultural development" as one of the two things to teach their children	0
Percent who mention "Ataturk" as the person they most admire	0
Percent who would wish for more education if one wish could be granted in future	1
Percent who mention a specific project they would undertake if they were the Prime Minister	5
Percent who mention a specific village project they would undertake if they were the Muhtar	7

Interviewer Ratings

Percent of respondents reported as answering most questions sincerely	3
Percent of respondents rated as having difficulty in understanding many questions	1
Percent of respondents rated as generally cooperative	5
Percent of respondents rated as having other adults present at interview	6

It will be noted that the magnitude of error is small. The items presented in the table were not chosen arbitrarily. Some, for example, were chosen because they represent phenomena of considerable practical importance, e.g., literacy or educational level of villagers, which figure prominently in our analyses. Other items were chosen because they are analytical

variables which are employed in various comparisons presented in subsequent reports for example, age. In the instance of open-ended questions, where coders must classify the answers into categories after the questionnaires have been returned and may often have great difficulty in making the judgment as to the appropriate category for an ambiguous answer, the addition of this component of error to the other errors arising from sampling and interviewing does not increase the unreliability in any appreciable degree. Interviewer ratings of non-observable characteristics such as "sincerity" are often subject to unreliability. Since they figure in other methodological tests of error in a way to be described below, it is important to establish their reliability. The table demonstrates that the field staff could make ratings with high reliability.

2. Sampling bias as checked by the magnitude and distribution of losses from the sample:

While the agreement between the two sub-samples establishes that the net effect of all sources of variable error is small, it does not preclude the possibility that both samples are biased, that is, that certain sources of error operate in constant fashion on both samples and make the findings consistently inaccurate. The design of the total sample has been described in Section II, and was of such a nature that it would yield unbiased estimates of the characteristics under study for the defined universe. However, this outcome is dependent on the design's actually being executed as originally planned.

In all surveys, there is always some gap between the plan and the reality in sampling human populations through the use of large-scale field staffs. The field staffs may not be properly instructed as to the sampling

procedures. When properly instructed, they may nevertheless violate instructions unless carefully supervised. The basic sources, or sampling frames, from which the individuals or elements of the sample are finally drawn may themselves be incomplete, thus giving certain types of individuals or clusters of individuals no chance to be included and therefore creating a danger of a bias.

In Section II of this report, the procedures developed for that part of the sample design carried out on a decentralized basis are presented. The kinds of instruction employed and the type of supervision applied all suggest that bias produced by the poor performance of the field staff would be small. The sampling frame for the selection of the primary sampling units, the villages, was based on the most recent official government sources, and the likelihood of any appreciable number of villages being excluded from the original list is negligible. Within the villages, the sampling frame for all individuals over the age of sixteen might have excluded certain individuals, either because an already available list was incomplete, or because the lists which sometimes had to be specially prepared on the site by the field teams might omit some adults living within the village.

One empirical test reported earlier establishes that bias due to underlisting of villagers is small. As noted, the current official estimate of population size for each village was the basis for the choice of the sampling interval which was given to each field team. Applying this sampling interval to the list finally prepared would only yield the specified number of cases in the sample for each village if the list of all individuals were complete. Otherwise the number in each village would have been too low.

T The agreement between the average number actually designated for interview per village and the number intended is so close as to preclude the fact that undercoverage was of any significant magnitude.

A danger of bias in the sample arises, however, from still another source. While the interviewers may adhere to instructions, the respondents who are finally designated to be interviewed may refuse to cooperate or may be unlocatable. If too large a loss occurs at this stage the results may be biased, insofar as those not available for interview are of some specialized type whose characteristics cannot enter into the final survey findings.

The completion rate for the total survey was 94.8%, demonstrating that only a very small number of respondents were lost for all reasons. In surveys operated under much more favorable conditions in other countries by highly experienced field staffs, the losses are usually considerably higher, ranging from about 15% to upwards of 30%.

If the 5% of cases who should have been interviewed was a highly homogeneous group with characteristics sharply different from the 95% who had been interviewed, there would be a danger of bias, albeit of small magnitude, since changing any survey finding even by a factor of 5 percentage points would not change the conclusions markedly. However, insofar as the group that is lost is heterogeneous and not sharply different from those interviewed, the residual bias is of even smaller magnitude. Any specific survey finding would change by considerably less than 5 percentage points, the lost cases distributing themselves into several different categories of answers. While the <u>attitudes</u> of those who were lost for interviewing can never be known, other characteristics of the group are known.

Analysis of these characteristics demonstrates that the group is heterogenous. In the appendix to this section, for example, the distribution of losses are slightly different in magnitude as between the various regions, but not exclusive to any one area. Variations in losses between Interviewing Teams are also moderate.

3. Variance arising from interviewers as checked by interpenetrating samples within each village:

The field staff was carefully recruited, trained and supervised as described in Section II of the report. However, given the inexperience of the interviewers and the difficult task they had, a special check was incorporated into the survey. It parallels check number 1 above, but is applied in such fashion as to yield a separate test of interviewer effects. Within each village the women in the sample were divided into two equivalent groups and each of two women interviewers carried out all of the interviewing of a half-sample. Correspondingly, the pair of men interviewers were allocated equivalent sub-samples of male respondents in each village. Over all the villages that each field team worked in, the difference between results obtained by the two male or two female interviewers distort the results since the equivalent samples should yield identical results. The analysis required to make this check over all the pairs of interviewers in the total survey for a series of findings is exceedingly complex and cannot be presented in this report as it is not yet completed.

4. Biases arising from all sources as checked by aggregate external information:

As noted above, the sampling bias is certainly small but, admittedly, of some unknown magnitude. In addition, there may be some bias created by

the respondents and interviewers. While there are various checks on the errors created by the influence different interviewers have on respondents, there may be some constant response error due to the fact that interviewers or respondents consistently distort the results. The total bias from all sources can be measured by comparing the survey findings for particular characteristics with independent information. This is only possible in the instance of a small number of factual matters for which current and accurate official information is available.

One such comparison is possible between the information regarding family size obtained in the survey and that garnered from the 1955 National Census. The two sets of data are given in Table 2, below. The close match is quite evident.

Table 2

Percentage of Village Population According to Family Size, per 1955 Census and Rural Development Survey

Family Size	1955 Census	Rural Development Survey
One person	1%	5%
Two persons	3	4
Three persons	6	6
Four persons	10	10
Five persons	14	14
Six persons	15	13
Seven or eight persons	24	22
Nine or more persons	26	23
Don't Know & Refusal	1	3
Total	100%	100%

Source of 1955 data: 1955 Genel Nufus Sayimi (10 Sample), Ankara, 1957, p.52.

We can also compare the survey results concerning the number of rooms in the respondent's house with the results of this same 1955 Census. In this case, however, the comparison can only be suggestive, since the survey results are tabulated in terms of a random sample of individual villagers while the census results are presented in terms of households, treating each household as a unit regardless of its size. Hence, we should expect to find in the 1955 Census a reduced incidence of houses with more than the average number of rooms, since the reports of respondents in large families will be undervalued in household reporting as compared with individual reporting. Allowing for this bias, we see from Table 3 that the two sets of results again compare quite closely.

Table 3

Number of Rooms per Village Family (1955 Census) and per Respondent (Rural Development Survey)

Number of Rooms	1955 Census Percentage of Village Families	Rural Development Survey Percentage of Villagers
One	26%	19%
Two	36	35
Three	17	21
Four	10	14
Five	4	4
Six	3	2
Seven or more	3	2
Don't Know & Refusal	3	2
Total	100%	100%

Source of 1955 data: ibid.

Comparisons between the 1962 Rural Development Research Project survey and the 1960 Village Census for items which were similar are presented in Table 4.

Table 4

Comparisons of Findings from the 1960 Village Census and the 1962 Rural Development Research Project

Item	1960 Census	1962 Survey
Per cent of Peasants Resident in Village Which Has:		
Religious Leader (Imam)	81%	83%
Coffee House	44	39
Guest Room	47	45
Mosque or Chapel	83	86
Primary School	73	75
Drinking Water from Springs	70	64
Drinking Water from Wells	15	18
Per cent of Peasants Resident in Village According to the Village's Distance from the County (Kaza) Center:		
1 - 5 km. (0-4 km. on survey)	9%	5%
6 - 10 km. (5-9 km. " ")	16	13
11 - 15 km. (10-14km." ")	17	19
16 - 20 km. (15-19km." ")	15	17
20 km. (19 km. " ")	42	45
No Information	6	--
Villages Located on the Plain - Percentage of Peasants In	21%	19%
Per cent of Peasants Resident in Villages of Size:		
0 - 199	5%	5%
200 - 399	21	20
400 - 599	23	21
600 - 999	29	28
1,000 - 1,999	23	26

The closeness of these results from two independent operations conducted two years apart and with different objectives is readily apparent.

Since most of the independent checks on the gross accuracy of the survey data are of necessity based on the National Census, itself a survey and subject to some of the same problems our project encountered, we have attempted to compare the survey findings with data from other outside sources wherever possible. To illustrate this procedure one further example is perhaps helpful. We secured from official Turkish agencies information regarding the voting participation of all 458 villages in our sample. With much labor, the percentage of eligible voters who actually voted in the 1961 national election was ascertained for each village. In all, nearly 83% of the eligible voters in the designated villages voted in that election. Some 79% of our respondents indicated that they had voted in a national election, about nine in 10 of these specifying that the last time was in 1961 (though there seems to have been a little confusion between the Constitutional Referendum and the national election of that year). When we recall that the number of eligible voters (22 years and over), on which the official percentages are based, is somewhat less than the total population (16 years and over) of the village, on which the survey percentages are based, we again see the close relationship of the two independent results. Similar broad correspondence between the survey results and independent official information exists for such diverse characteristics as literacy, village electrification, medical services, land distribution, school facilities, and marital status.

5. Biases below the aggregate level and checks by comparisons of sub-groups:

The type of external information which can be employed as an exact check on the bias in aggregate findings is sometimes presented in the form of more detailed breakdowns in official sources. It is then possible to

check whether or not biases are present in particular survey findings for sub-groups which may be obscured at the aggregate level. This is an even more demanding test of accuracy. However, even where such exact statistical information is not available for sub-groups, the relative position of certain sub-groups with respect to some characteristic may be well known. Then if the survey results were accurate, one would expect the differences found among sub-groups to pattern themselves in the expected way. A great many such inferential checks on accuracy are available in our survey. Literally scores or hundreds of cross-tabulations and correlations supporting the construct validity of the survey items could be cited. To illustrate these very simply, Table 5 presents some of the sex differences obtained, all of which parallel what would be expected. Women report less literacy, less schooling, and shorter lengths of residence, the latter to be expected in a society where marriage is patrilocal.

Table 5

Inferential Checks on Accuracy as Revealed by Sex Differences

	Men	Women
Per cent reporting literacy	49%	9%
Per cent reporting past attendance at school	39	18
Per cent reporting that they were born in village	88	62
N =	3010	3311

6. Response error as checked inferentially by knowledge of the conditions of the interview

On the questions about attitudes, which constitute one of the main objectives of the survey, direct checks on the accuracy of report by comparisons with external information are not possible, since social attitudes are not enumerated in census or government records. Inferential

checks by sub-group comparisons are sometimes difficult to make and dubious since the lack of social research in the past means that some assumptions about the way attitude differences would pattern themselves when used as criterion, might themselves be based simply on hearsay or prejudice. After all, one of the very purposes of our survey is to establish some basic, scientific information on attitude differences within the population.

Yet it is in the very sphere of attitude that the villagers might be prone to bias their reports of their true feelings, creating an insidious problem of error, most difficult to uncover. However, it is possible to make inferential checks on response error from knowledge of the conditions under which the interviews were conducted, for it has been well established in the past what conditions are desirable for an effective interview. Therefore, a series of such facts were recorded by the interviewers and these establish that the great majority of respondents were interviewed under conditions which would lead to accuracy of report.

By way of illustration, the presence of another adult may influence a respondent to express a view different from his private attitude, because of the desire to accommodate to the other person or because of fear of expressing a non-conformist view. The interviewers were therefore instructed to conduct interviews whenever possible under conditions of privacy. However, privacy is difficult to achieve under conditions of village life, and therefore a record was made of the actual situation that obtained. In 75% of all interviews, no other person over the age of 16 was present. In the other 25% of the interviews, while some other adult was present, the situation was not as disadvantageous as might at first appear. The interviewers were asked to rate whether or not the other adult participated at all in the conversation, and if so, whether his influence seemed to be harmful to the obtaining of

correct information. In most instances, they report that the other party present was completely passive, and in only 1% of all interviews did they judge the activity of the third party to be harmful.

To be sure, this is a difficult judgment to make, but as with the other interviewer ratings, a check on the reliability of the rating itself is available from comparison of the two sub-samples. The estimate as to whether a third party, when present, was passive or participating in any harmful way varied by only 3 percentage points for the two samples. The accuracy of the appraisal of the privacy of the situation can also be checked by sub-group comparisons. One would expect women more frequently to be interviewed in the setting of the home, where children are present, and, indeed, we find the expectation borne out by the interviewer reports. Table 6 presents some inferential evidence that the interviewers are functioning effectively in recording the specified facts.

Table 6

Sex Differences in the Conditions of the Interview

	Men	Women
Per cent interviewed in their own home	27%	61%
in a work setting	33	15
in someone else's home	9	14
Children present during interview	3	9
N =	3010	3311

Ratings of other features of the interview situation, previously established to be reliable (see Table 1), also provide inferential support for the conclusion that response error would not be great. In 85% of the

interviews, the respondents were rated as answering most questions sincerely, and in only 4% of the cases did the interviewers judge the insincerity to be pervasive throughout the interview. It is possible, of course, to compare the answers of respondents rated in contrasted ways, or if necessary, to segregate the small minority, and exclude their answers in computing the results.

One rating gives some cause for concern -- 63% of the respondents were rated as having no difficulty at all in understanding the questions. However, for the remainder, we find that 17% are rated as having difficulty on many of the questions, and another 16% as having difficulty on a few questions. That the rating is probably faithful to the facts is borne out by the comparison between men and women respondents. Table 7 presents some of the data. As would be expected, considering the lower educational level of women, their lower literacy level, and the lower scores they obtain on measures of knowledge in the interview, problems of understanding are more severe.

Table 7

Sex Differences in Ease of Understanding the Questions

	Men	Women
Per cent rated as having difficulty on many questions	13%	21%
Per cent rated as having difficulty on a few questions	15	18
N =	3010	3311

The analysis of the sex differences also suggests, however, that the problem is not as severe or intractable as might appear. First of all, it may be possible from interviewer reports to locate those questions which caused the most difficulty in understanding and to treat those specific findings with greater caution. In addition, the fact that the

difficulties of understanding are concentrated in particular sub-groups, for example, women, makes it possible to treat the findings among certain groups with considerable confidence and to apply the appropriate caution to the estimates for other sub-groups.

IV. ANALYTIC PLANS

The major findings from the Rural Development Research Project will be presented to the sponsors in a series of reports of which this is the first. This series will include the following:

Report No. 1. General Description of the Rural Development Research Project

" No. 2. Index Construction and Validation for the Rural Development Research Project

" No. 3. The Mass Media and Rural Development in Turkey

" No. 4. Regional Variations in Rural Turkey

" No. 5. Age as a Factor in Turkey's Rural Development

" No. 6. Land Ownership and Peasant Orientations in Rural Turkey

" No. 7. The Propensity to Innovate Among Turkish Peasants

" No. 8. Sex Role Differences in Turkish Rural Development

" No. 9. Education, Literacy & Rural Development in Turkey

" No.10. Social Structure & Community Development in Rural Turkey

" No.11. Final Report: A Brief Overview of the Rural Development

Although not part of any obligation to the project's sponsors, it is hoped that the most significant theoretical findings of this research will ultimately be presented to the academic community in a monograph by the Chief of the Consultant Party. The full analysis planned for this involves at least the following stages: 1) Analysis of gross marginals and controlled marginals; 2) Deep and extensive analysis of item cross-tabulations; 3) Construction and validation of indices and scales; 4) Reduction of uncertainty analysis of all items, indices and scales; 5) Cluster analysis of the full matrix of percentage reductions of uncertainty for all items, indices and scales; 6) Factor analysis of appropriate items, indices and scales for comparison with the cluster analysis;

7) Contextual analyses using both the individual and the village as units of analysis; 8) Analyses involving the addition of data from other sources to the data file of the Rural Development Research Project (that is, other survey data, governmental records, etc.).[14]

Completion of this analytic program will occur well after the obligations to the sponsors (essentially, submission of the eleven reports described above) have been met and the original funds exhausted. Finally, it is hoped that the raw data from this project can be placed in some of the scholarly data archives in various parts of the world so that they become available for secondary analysis by all interested social scientists.

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[14]The selection of predictive uncertainty procedures employed in these analyses were suggested and developed by Carl P. Hensler, with the assistance of William Selles, Allan Kessler and Raymond Sommer. The derivation and details of the techniques will be described by Hensler in a forthcoming paper tentatively entitled "Application of Information Concepts to Measures of Statistical Association." See also, Fred Attneave, Applications of Information Theory to Psychology: A Summary of Basic Concepts, Methods, and Results, (New York: Holt, Rinehart and Winston, 1959).