

**MANPOWER UTILIZATION - JOB SECURITY
IN THE LONGSHORE INDUSTRY**

HOUSTON — GALVESTON

**Report and Findings
of the
Department of Labor**



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PORTS OF HOUSTON - GALVESTON

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INTRODUCTION

The review by the Department of Labor of manpower utilization and job security problems affecting the longshore industry in various Atlantic and Gulf Coast Ports is the result of recommendations made by a special board in January 1963.^{1/} As part of the settlement of the issues in dispute, the parties in each port agreed to a comprehensive study of manpower utilization - job security and all other

^{1/} On January 16, 1963, President Kennedy appointed a special board composed of Senator Wayne Morse, Chairman, Theodore W. Kheel, and James J. Healy, to mediate a work stoppage affecting the Atlantic and Gulf Coast longshore industry. As part of a recommended basis for settlement, the Board proposed that a study be made by the Department of Labor. On January 20, 1963, the New York Shipping Association and the International Longshoremen's Association signed a Memorandum of Settlement agreeing to the proposed study. Subsequently, similar agreements, providing for a Departmental study, were entered into in most of the other Atlantic and Gulf Coast Ports.

related factors which affect the longshore industry. This report is one of a series which will cover the ten ports selected for inclusion in the study.

In determining the scope of the study, the Department of Labor was guided primarily by the terms of the agreements reached in the various ports. A major portion of the review for each port consisted of a detailed analysis of manning requirements and work practices at a number of general cargo and bulk commodity piers. This analysis included (1) actual observations of cargo loading and unloading and terminal operations, and (2) extensive interviews with management and union representatives.

By combining an analysis of these observations and interviews with basic factual data developed in the course of the study, the Department has sought to bring into focus the major problem areas, and to make evident to the parties possible alternative routes by which they themselves can reach the best mutual accommodation.

The study was not designed to produce an engineering "time and motion" type analysis of work requirements in the longshore industry. Nor was it intended to be the

final word on manning patterns. It was intended rather to develop a fuller understanding of the problems that exist for both management and labor in the areas of manpower utilization and job security.

Following completion of the study phase of the project, a series of joint meetings were held with the parties from each port. At these meetings, the Department supplied to the parties details of the information collected in the study. The principal areas of review in each port included: (1) a statistical analysis of the characteristics of the longshore labor force; (2) the hiring practices in the port and their relationship to seniority; (3) customs and practices affecting manpower utilization; (4) workforce flexibility and manning requirements; (5) job security; (6) suggestions of both parties, obtained in interviews, for changes in existing practices; (7) observations conducted at the piers during the study; and, (8) impending future technological changes in the industry and their potential impact on manpower needs.

The report for each port constitutes the culmination

of these meetings. The purpose of the separate port reports, rather than to provide a summary of data, is to highlight the significant features which were brought out in the joint meetings and to give to the parties a broad perspective as a basis for their coming negotiations.

The first report issued contained the findings of the Department for the Port of New York. These findings could be divided into two general categories, (1) those which applied specifically to the current situation in the Port of New York, and (2) general findings relating to the industry, which included an analysis of certain basic problems characteristic of longshoring, an examination of their causes, and a review of possible alternative routes to their solution.

In order to facilitate review, the format for the findings for all of the remaining nine ports makes a clear division between these two categories. Under the heading, General Findings - Part I, the report reviews basic information and observations characteristic of the industry as a whole. This category applies to a greater or lesser extent

to all ports included in the study and is, therefore, the same in each report.

The specific characteristics, problems, and findings for the individual port to which the report is addressed are contained in Part II. It should be made clear, however, that the general findings although identical in each report, are essential background information for evaluation of the special concerns of each individual port.

PART I

GENERAL FINDINGS

It is essential, if this study is to serve its purpose, that the parties accept two guiding considerations as a framework within which to approach their problems.

The first of these is that the basic concerns of both parties are, in fact, opposite facets of the same problem. Manpower utilization and job security were not bracketed together in this study merely by chance. They belong together. Neither can be resolved without an accompanying adjustment in the other. For this reason, it becomes

important that the union should recognize and understand the economic and competitive problems that exist for management when the services of employees cannot be utilized productively. If the excessive costs brought about by such a situation continue too long, the result will inevitably be a decline in the competitive position of an individual pier, the port, or the industry as a whole. It is equally important that management should recognize, and should share, the union's concern for the welfare of the men employed in the industry. A man's job is his lifeline. For those men who have served a substantial part of their lives in an industry, equity imposes an obligation upon that industry to provide some protection when changed operations reduce employment opportunities or eliminate jobs. This is a principle which is today generally recognized and accepted throughout American industry.

The second consideration is timing. There is an opportunity in these negotiations, in part through the data gathered in this study, for the parties to examine the entire scope of their problems and to understand their

interrelationships. Such opportunities are rare. Since this is so, there could be great value to both sides in using this foundation to develop machinery for the solution of their mutual problems in the years ahead. Clearly it is unrealistic to expect that all details could be finally resolved in the coming negotiations. However, agreement in principle and the implementation of appropriate machinery leading to ultimate solutions are possible.

If both parties would approach bargaining with a recognition of (1) the broad scope of the problems facing the industry; (2) the interlocking aspects of possible solutions; (3) the need to provide a succession of steps over a period of time to reach desired goals without sudden disruptions; and (4) the responsibility of both parties to plan for adjustment to changing conditions, then these negotiations could provide for definite initial actions and create a framework for agreement on basic principles for future measures.

Nature of the Longshore Workforce

Historically, employment in the longshore industry has

been casual and irregular. Job opportunities vary widely from day to day in each port, or in specific sections of larger ports, based upon ship arrivals and departures. Shipping schedules over which longshoremen as well as their employing stevedores have no control cause employment peaks at certain times in the workweek, and little activity in others. Some ports are subject to seasonal fluctuations in activity (e.g. ports handling large quantities of particular agricultural products).

Study by the Department of Labor confirmed, due to the foregoing considerations and other factors, the casual nature of longshore employment. While the degree of casualness varies from one port to another, every port studied (with the exception of New York) has a considerably larger workforce than would be required even to meet peak demands. In some ports the total number of men who have some employment attachment in the industry is twice as high as the number of employees needed for a typical workday.

The effects of a casual longshore workforce are twofold. First, an excess number of available workers, who may be hired with little regard to industry attachment, siphon off employment opportunities which could otherwise accrue to the more basic workforce which looks to longshoring as their principal means of employment. Secondly, hiring from the casual ranks could affect both manpower utilization and productivity through the employment of individuals who have little longshoring skill and who look to the industry only as an incidental means of employment.

The basic workforce of the industry - those men who depend upon longshoring for a livelihood - is generally considered by the industry itself to include those employees who work a sufficient number of hours to qualify for certain contractual benefits, such as pension and welfare payments. Although variations exist among the ports, the usual work requirement for pension benefits is either 700 or 800 hours a year. In nearly all of the ten ports studied, the basic workforce, by this definition, is less than half the

total number of men hired in the year. In four ports more than three-quarters of the workforce were employed less than 700 hours during the year. In nearly all of the ports studied the "under 100 hours" group - which would be considered "casual" by any definition - constitutes from one-third to over half of the workforce. By way of contrast, in the Port of New York, which has an established decasualization program, over one-half of the employees work more than 1,600 hours a year; over four-fifths of the employees work more than 700 hours a year; and the completely casual employees (working less than 100 hours) now represent only about 7 percent of all employees.

The Department's analysis makes obvious the need for most Atlantic and Gulf Coast ports to develop some techniques by which a sufficient workforce will be available to meet the manpower needs of the industry, but which will also afford a reasonable degree of employment opportunity to those employees who look to the industry as their principal means of livelihood.

Hiring and Seniority

The principal means employed by industry generally to assure an adequate, skilled workforce capable of meeting employment demands is achieved through the operation of the hiring and seniority system. The Port of New York, as well as major ports in Western Europe, furnish ample evidence that suitable arrangements can be made in the longshore industry (notwithstanding its unique problems) to develop hiring and seniority arrangements which protect the interests of the basic, long-service workforce and at the same time assure an adequate supply of workers to meet fluctuating employment demands. During the past ten years the workforce in the Port of New York has changed from one of casual employment to one of relative stability, largely through changes in the hiring system. Since 1953 a register of longshore workers has been maintained by the Waterfront Commission of New York Harbor, a bi-state agency established by the governments of New York and New Jersey. Only men who are registered with the Commission may now be employed on the waterfront. The Commission also administers

a decasualization program which removes from the register those workers who fail to meet fixed minimum work requirements during a given period. This program has reduced the supply of labor to levels more closely related to demand.

An accompanying development in New York has been the establishment of a meaningful seniority system. In New York, the hiring traditions developed over the years coupled with the extent and size of the port layout prompted the parties to establish a dual seniority system which is a combination of pier attachment and length of continuous service. From time to time the system has been modified to meet changing needs and to better serve the interests of the parties. However, the end result of the interaction of the decasualization program and seniority system has been to provide a more balanced workforce and to assure a high level of available work time to longer service employees.

New York is not alone in developing constructive hiring and seniority arrangements. A number of the principal ports in Western Europe, including London, Liverpool,

Marseilles, and Rotterdam, have developed, either through government administration and supervision or by the employer and worker representatives, arrangements designed to stabilize the workforce and earnings in the industry.^{1/}

The hiring controls in New York, and in some of the European ports mentioned, are government operated and, therefore, are not directly applicable to other ports studied by the Department. A solution to the problem of excess labor supply, however, is an essential preliminary to the resolution of other problems. Both labor and management have a primary interest in reaching an agreement on procedures to reduce the present spread between employment needs and the number of men who are seeking work in the industry. Unless the workforce is stabilized, there can be no progress toward establishing reasonable job security or eliminating certain manpower utilization problems.

Control of the labor force and improvement in the employment opportunities of the basic workforce generally are exercised through the hiring and seniority system. The

^{1/} Vernon H. Jensen, Hiring of Dock Workers (Cambridge: Harvard University Press, 1964).

means to accomplish such control vary, and procedures which may be appropriate to one port will not necessarily function well in another. Any decasualization and seniority system should be adapted to meet the particular problems of the port. Further, it is a corollary requirement to any plan to reduce surplus manpower that, as stability is achieved for the remaining workers and job opportunities become more attractive to outside employees, controls should be retained to prevent the return of a labor surplus problem. To maintain an adequate workforce, however, provision must also be made for orderly entrance of new employees into the industry, from time to time, to meet future needs.

Technological Outlook

The source of some of the major problems of manpower utilization and job security in the longshore industry can be found, to a great extent, in its changing technology. With new cargo handling methods less manpower is required. This causes management to seek a reduction in the number of its employees, and, on the other hand, creates a union

reaction to preserve the jobs that exist and, further, to increase the number of rules requiring limitations on assignments.

This situation has resulted in the conflicting points of view expressed in management's concern that they could be required to employ unnecessary or surplus men, and the union's efforts to maintain existing jobs for its members despite changing conditions and needs. The major efforts of the study have, therefore, been concentrated on a detailed examination of the problem brought about by technological changes and possible routes toward its resolution. This fundamental problem is intensified in the long-shore industry by two additional factors: (1) management must cope with wide variations in work activity, and consequently in manpower requirements; and (2) the employees generally have very tenuous attachment to their jobs, usually limited to a four or eight-hour guarantee.

Some technological changes have only limited effects on manpower, and adjustments to them can be made without eliminating jobs. Others have drastic effects. The most

clear-cut and dramatic evidence of the impact of technology on manning requirements appears in recent changes that have taken place in bulk handling of single commodity cargo. For example, in bulk sugar operations, because of reductions in gang size as well as in the total number of gangs used, employment has dropped to about one-third of the levels formerly required to handle bagged sugar. Moreover, each advance in technology in these specialized operations tends to decrease further the need for men or to create surplus manpower even in currently reduced gangs.

Despite reductions in the number of men employed and in total manhours worked on many bulk cargo piers, management in some cases is still unable to utilize fully all the men if minimum gangs are required by contract.

Although general cargo operations do not lend themselves to mechanized processes as readily as does single commodity handling, changes at the bulk cargo piers and their effect on manning needs provide insight into the concerns of both parties over current manning practices and the impact of future developments on the general cargo

piers. Technological advances affecting general cargo handling are being introduced. Recognizing this, management is seeking to modify longstanding manpower practices that could grow increasingly unrealistic over the years. The union, observing declining manpower needs and reduced job opportunities has attempted to strengthen means by which existing jobs can be preserved.

The nature of the technological changes taking place in the longshore industry are varied. Although some changes will affect certain ports more than others because of differences in physical layout, commodity mix, and specialized operations, the technological changes now being introduced into the industry carry implications for future manpower needs in each port.

New methods of packaging cargo, either in containers or strapped to pallets, have already begun to raise important questions of manpower needs. Most general cargo piers now handle very limited amounts of this type of cargo. It is already clear, however, that unitized cargo, whether on pallets or in containers, can usually be loaded or discharged

from a ship in much less time, and by substantially fewer men, than general break-bulk cargo under present handling methods.

The potential for containerized cargo appears to be much greater for domestic than for foreign trade. Fully profitable container operations on any trade route usually need a considerable amount of containerized cargo at both ends of the run. Also, such cargo should be concentrated in a few ports. Usually these conditions are more readily found in domestic than in foreign trade. Where specialized container operations exist there have been substantial reductions in ship loading and unloading time as well as in manpower requirements.

Generally, however, it is anticipated that the growth of container operations will be relatively slow. Among the factors limiting the prospect of a rapid increase in containerization are the high initial costs of building specialized ships, the difficulty of handling containers on most conventional ships, the cost of container units, and the loss involved in using stowage space to return

empty containers when trade is not balanced in both directions.

Future prospects for the use of pre-palletized cargo, on the other hand, are considered very favorable. One advantage is that pallets are inexpensive units which require a smaller initial investment compared to containers. Maintenance and replacement expenses are also lower for pallets than for containers.

Because of the smaller size and cube of a pre-palletized unit, as compared to a container, it is more easily handled by conventional mechanical equipment existing on the piers and ships. Pre-palletized units can be stowed in the hold of a conventional ship more efficiently and in a manner to minimize loss of hold space. Further, empty pallets do not require nearly as much hold space nor do they weigh as much as empty containers. This can be an important advantage when trade is not balanced in both directions and pallets or containers must be returned empty.

Terminal construction affects manpower utilization and, cumulatively, manpower requirements. Piers are being

specially designed to expedite the handling of cargo: large storage and parking areas are provided to facilitate truck movements, special facilities are constructed to handle container operations, buildings are designed to provide faster and more direct movement of cargo through the terminal.

Ship construction is undergoing similar developments. Some ships have been constructed, or converted, to carry only containers, others to handle one type of cargo exclusively. On general cargo ships, ports and hatches are being redesigned, with regard to location, size, and shape. Semi-automatic and automatic hatch covers are being installed. Winch controls are being placed closer together to enable operation by only one man. All of these shipside changes, taken together, are affecting manpower requirements.

The foregoing merely serves to highlight the potential for technological change in the longshore industry and to suggest the implications of such changes on future manpower needs. Developments of this nature are not peculiar to the

longshore industry. American industry generally, almost without exception, is experiencing similar changes and the problems associated with them. If the experiences of others can serve as a guide, however, it appears highly desirable -- indeed essential -- that both labor and management anticipate and jointly plan in advance to minimize any potential adverse effects upon workers from these emerging technological changes.

Technological change is inherent in industrial progress. It must be accepted as a fundamental premise that management should be free to improve equipment, to develop more efficient methods, and to maintain its operations in a manner which will keep it competitive with other segments of the industry and with other means of transportation.

Equally fundamental is acceptance of the premise that the cost of technological change shall not rest entirely upon the employees in the industry.

These two principles create the framework within which the parties can adjust to changing conditions in the industry as they occur.

Job Security

The steady decline in total manhours of work as technological and other changes have occurred in the industry, has brought a union reaction to resist change, to hold to restrictions on jobs which have developed through past practices, and to seek new measures of job security. It has been noted previously that job security in this industry is minimal. A longshore worker, with few exceptions, is hired when his services are needed, for four hours or for eight hours. He has no further guarantee of employment. While it is recognized that some men may work as regularly as men in industry generally, there is no formal commitment of continuing employment.

Various approaches have been used to increase job security. One of these has been the union's insistence on maintaining gang size and existing job assignments under all circumstances.

A number of other approaches to job security have been adopted in other industries to protect employees when changed operating conditions reduce job opportunities. Some of these

have involved broader guarantees, either of work opportunities or earnings; others have involved control of the size of the workforce; and still others have been concerned with protection for men whose jobs are eliminated and who must be laid off.

Provisions to increase security may call for a system of minimum guarantees, either for a basic workweek or longer for regular employees. Frequently, measures to divide the available work among regular employees through a "share-the-work" or equalization-of-earnings plan may be included with these guarantees.

To avoid the need for direct layoffs, action could be taken to limit the intake of new men into the basic workforce if the industry's job requirements were to decline in the future. Approaching the same objective from a different point, an early retirement plan could be developed. By combining these two devices to reduce the workforce, attrition alone might be adequate to adjust the size of the workforce to meet reduced work opportunities if cargo-handling methods change.

If major innovations are to be introduced in the future, the union should be given sufficient advance notice to permit the development of joint labor-management plans for protection of the men whose jobs would be eliminated. These plans could include retraining for the men in the basic workforce, either to operate the new equipment and avoid layoff, or to help them establish themselves in another industry. In addition, many industries provide severance pay when regular employees lose their jobs due to changed operations.

As suggested earlier, the development of a seniority system also can contribute to increased job security. In most industries, seniority is the primary factor in job security. Seniority, or the employee's length of continuous service, is generally a basic consideration in layoffs and rehiring, in promotions and transfers. There is widespread agreement between management and labor that as a matter of equity long-service employees are entitled to a greater degree of job security than are recently employed men. For this reason, most labor agreements contain

seniority provisions to establish a measure of job security and to define its application under particular circumstances.

Seniority provisions vary and, in each instance, must be tailored to meet the needs and characteristics of the industry. A seniority system that functions well in a manufacturing plant may not serve at all in the longshore industry. In the few ports where the seniority principle has been recognized, it is applied to the hiring procedures. In this industry, where men are rehired daily, job security becomes largely a matter of a man's place on the scale of hiring priorities and the frequency of work opportunity that priority gives him.

Each advance that is made toward reducing the excess number of men in the workforce and toward developing an improved hiring and seniority system enhances that job security.

PART II

PORT OF HOUSTON

LABOR FORCE CHARACTERISTICS

Data on employment and hours worked in the longshore industry in the Port of Houston are available only for employees who worked 700 hours or more each year. However, estimates based on earnings data from payroll records indicate that longshore employees working 700 hours or more represent only about one-third of the more than 7,000 workers employed in the industry.

Thus, about two-thirds of the total workforce is comprised of men who are casual workers. The lack of stability in this "under-700-hours" group in Houston is evidenced by the high proportion of workers who obtained only minimal employment. Thirty percent of all employees (about half of those employed less than 700 hours) earned less than \$100, and averaged only 11 hours of work during contract year 1962-63. Most of the remaining employees in the under-700-hours group earned less than \$1,000 in the industry

during the same year.

Weekly employment of longshoremen alone averaged 2,178 men during contract year 1962-63, and ranged from a low of 1,679 to a high of 2,680. In most weeks employment was concentrated within the relatively narrow range of 2,000 to 2,400 men. The wide gap between the number of job opportunities normally available and the number of men who find some work in the industry is a further measure of the degree to which work in longshoring in the port is performed by casuals. To the extent that casual employees are assigned to work, fewer jobs are available to men in the regular workforce. In contract year 1962-63, 11 percent of all longshore work in the port was performed by the under-700-hours group.

The changing manpower requirements which are characteristic of day-to-day operations in the longshore industry make necessary a reserve of available workers. In Houston, however, the large proportion of casual employees indicates that the total workforce is far in excess of the normal needs of the port.

The one-third of the workforce employed over 700 hours, on the other hand, has a record of considerable stability. In the three-year period (contract years 1959-60 through 1961-62) the number of men working 700 hours or more has changed very little, totalling just over 2,600 workers in each year. During the same period, men in this group have averaged about 1,900 hours annually. Further, an increasing proportion of the men in the over-700-hours group have been working more than 1,200 hours a year. In contract year 1961-62, the number employed more than 1,200 hours was slightly above 2,000 men, or approximately three-fourths of those in the over-700-hours group.

It should be noted that the number of men in this basic workforce (over 700 hours) is generally adequate to meet the weekly employment requirements of the port. In only two weeks during contract year 1962-63 were more than 2,600 men employed in longshoring in Houston. This indicates that preference in hiring is generally given to experienced men in the regular workforce. However, it further underscores the excessive number of casual workers

in relation to the number of jobs available.

HIRING AND SENIORITY PRACTICES

Control over hiring in the Port of Houston is exclusively in the hands of the union. Management has no role in the process beyond designating the number of men needed for a particular operation. Hiring procedures for checkers are somewhat different from those for longshoremen; however, here also management has no voice in the selection of any of the men hired. Only for timekeepers and clerks has a system of hiring been instituted which permits management selection of employees.

Clerks, Timekeepers, and Checkers: Most of the men classified as clerks and timekeepers are assured regular monthly or weekly employment. Although each man carries a seniority rating, it has no bearing on his selection for employment. Employers (steamship companies, terminal operators, etc.) hire clerks and timekeepers on an individual basis, "by name" as it is termed in the industry, without notification

to the union. The hiring procedure is simply a matter of telling a man when to report for work, and such notice is given to the employee at the end of the work day, either in person or by telephoning his home.

If a regular clerk faces a prolonged period of layoff, he has the option of either seeking employment as a "regular" with another company or he can put himself "on the board," in which case he is subject to an entirely different hiring system, i.e., the one by which checkers normally are hired.

Employees in the various classifications of checkers are hired daily through the union hall under a system which encompasses three separate elements: (1) seniority, (2) job classification, and (3) rotation. The entire procedure is administered by the union; the employer's sole function is to place his order. The "Board," a series of listings on which appear the names of all eligible men, is divided into six seniority classes and several different job classifications. As orders are received, these lists serve to determine the order of selection. First, the orders are matched against the job classifications of available men. For

example, if an order calls for hatch checkers, selection is made from the list of available men in that classification. From among the men holding A seniority ratings, the hatch checker who has been out of work the longest is selected first. The entire A list of hatch checkers must be exhausted before turning to the B list where the entire process is repeated, then to C, and so on.

The majority of men are limited to only one job classification, and must await selection according to rotation within that category. The local union, however, has rated some men proficient in several classifications, such as dock checker, hatch checker, weigher, inspector, etc. Men thus rated have a distinct advantage in procuring employment, especially if qualified in a category which has few participants.

Orders, which are accepted by the local until 7:00 p.m. for 8:00 a.m. starts and up to two hours before other starting times, carry a minimum guarantee of four hours and are not subject to later cancellation without payment of the guarantee. In addition, men starting at 7:00 a.m. or later

are entitled to work until 6:00 a.m. the following day. Thus, once hired, men cannot be replaced by someone with greater seniority until 7:00 a.m. the next morning. The only exception to this rule is a break in straight-time hours for reasons other than meals. If this occurs, the men are considered dismissed and can be replaced.

After the men have been selected, they are called at home by the union and informed where and when they are to report and, if carried in several categories, under which classification they are to work. It is never necessary for the men to appear at the union hall.

The seniority system under which the checkers are hired was adopted in 1959. It applies both to union members and nonmembers, based on past employment. There are six seniority categories.

Class A. This, the highest seniority group, consists of men who had at least two years of employment through the union local before 1959 and who worked at least 1,200 hours between October 1, 1957, and September 30, 1958. Since its formation it has been a closed category. B men can move up

only upon the death or retirement of A men.

Class B. This category remained open until the end of 1963 and consists of men who have completed two years of employment through the local since January 1, 1959, and have worked 1,200 hours in each contract year. Up to its closing, men were automatically placed in B on the day of completing two years of service. At present, advancement is possible only upon an incumbent's death or retirement.

Class C. This category, the highest currently attainable by length of service alone, is scheduled to remain open until the end of 1968, when the entire seniority plan will be restudied. At the present time, any D man with one year in that grade and working at least 700 hours through the union during the contract year is placed in C.

Class D. All E men who have worked six months or more since January 1, 1959, with 500 hours between either October 1st and March 31st or April 1st and September 30th are placed in D on June 1st and January 1st, respectively.

Class E. Advancement to this class is available to F men below the age of 45, not employed elsewhere, and

possessing the equivalent of a high school education. Entry is contingent on the number of men moving from E to D, the order depending on the date the men were placed "on the board."

Class F. The lowest of the seniority classifications is supposedly open to anyone who desires to enter the industry. Since September 1963, however, because of the low level of port activity, the union has refused to accept applications.

A, B, and C men prevented from working by illness or injury are credited with 24 hours per week; D and E men receive 14 hours. These credits can be of prime importance because participants who fail to make the minimum hourly requirements of their class are dropped to the next lower grade. For example, B men failing to work 1,200 hours through the union during the year are dropped to C. They are not eligible for reinstatement until they have again met the requirements of their former class. An even more severe penalty, complete loss of seniority status, is imposed on men failing to work at all during the year.

However, men with 20 years or more of continuous service are not subject to any seniority loss for failure to work, nor are men over 65 years of age.

Longshoremen: The seniority system applicable to longshoremen was established only recently in its present form, following extensive modifications in 1961 and 1962. The two longshore locals in the port now have adopted generally similar seniority systems and hiring procedures.

The seniority system established the following length-of-service classifications for all deep-sea longshoremen:

Gold Star	25 years of service
Class AAA	20 years of service
Class AA	15 years of service
Class A	10 years of service
Class B	5 years of service
Class C	2 years of service
Class D-1	1 year of service
Class D	Applicants (Casuals)

All men within a given classification have equal hiring privileges. For example, a 19-year man cannot claim preference over another AA man with less than 19 years of service.

To retain their seniority classifications, all except Gold Star men must work at least 1,200 hours during each

contract year. This rule was apparently adopted on the grounds that a worker averaging less than three days of waterfront employment per week is not a "regular" and should be discouraged from remaining in the industry. If he fails to meet this minimum, the worker receives no credit for the year and is automatically dropped to the next lower seniority rating - for example, AA to A, A to B, etc. He can, however, return to his former classification if he subsequently works 1,200 hours per year.

The seniority plan makes allowances for breaks in service for reasons of illness, military service, and other specified causes, at the rate of 24 hours per week. To claim credit for hours lost because of sickness or physical disability, a longshoreman must either draw benefits from the ILA Welfare Fund or be entitled to workmen's compensation. Statements from doctors or any other source are not accepted.

Classification disputes can be submitted to an Appeals Committee composed of two longshoremen appointed by the local's executive board and one public member. The

Committee is authorized to render a final and binding decision; should the members disagree, the decision of the public member prevails. Very few cases, however, have gone to the Appeals Committee.

At the end of each quarter, each man's seniority hours are posted in the hall. This not only informs him whether he will retain his seniority status, but also whether he will be eligible for vacation pay (500 hours) and pension benefits (700 hours).

Day-to-day hiring procedures are handled entirely by the union. A stevedoring company in need of gangs for the following day calls both longshore locals to specify the number and size of the gangs he requires and the time and place the ship will work. Placing the order terminates the employer's role in the hiring process. At this point, the stevedore does not know which gangs he will get, who the gang foremen will be, or whether he will get the number of gangs he requested. These matters are determined by officials of the two locals whose members, on the basis of longstanding practice, alternate assignments on each ship

between fore and aft hatches. The division of assignments is made when the union officials, at about 7:00 p.m. each evening, check the orders for the next day. The local union which is next to be assigned to the forward hatches has first choice of any newly arrived ship. All other ships are then divided between the two locals, fore and aft, in the order in which they were called in.

Deadlines for ordering gangs are as follows: 7:00 p.m. for work to begin at 7:00 a.m. or 8:00 a.m. the next day; 8:00 a.m. for the 10:00 o'clock call; 11:00 a.m. for 1:00 p.m.; 1:00 p.m. for 3:00 p.m.; and 5:00 p.m. for 7:00 p.m. The employer has until the deadline to cancel an order; if not cancelled, the men report to work and are entitled to four hours' pay under the guarantee clause.

Under the terms of the contract, the Master Stevedores Association of Texas has the right to name men as gang foremen. In practice, however, it appears that this procedure is not followed. Rosters are kept by the local union which list all gang foremen and their earnings for the year.

Under the rules of the hiring hall, the man having the lowest

amount of earnings goes out first. The earnings records are posted daily in the business agent's office, so that each foreman knows exactly where he stands in relation to other foremen and how soon he can expect a call to work.

The name of the foreman and all related information (employer, ship, wharf, time, size of gang, etc.) are posted on a blackboard in the hiring hall. Essentially the same information is also put on recording machines so that foremen can learn of assignments without coming to the hall and longshoremen have an idea as to how busy the port is going to be.

The foreman does not have the right to pick a particular ship or cargo. He either accepts an assignment in the order in which his name comes up or else he automatically goes to the bottom of the list. In addition, each foreman must turn in his work order within 12 hours after a job has been completed so that his earnings record can be kept as current as possible.

After receiving work orders, the foremen proceed to the hiring area and, about 45 minutes before the call to

work, begin to pick their gangs. By this time the men have assembled in the hall and, as required, have segregated themselves according to seniority categories - Gold Star, AAA, AA, etc. When the hiring starts, the foremen must first offer jobs to Gold Star men, then to AAA men, AA next, etc., until the gang is completed. Men for dock and deck jobs are hired first, holdmen last, so that the physically more demanding jobs go to the junior men. A foreman can reject a job seeker only if he is certain that the man is unable to perform a particular job. A longshoreman, on the other hand, is free to turn down a foreman for any reason at all no matter how badly men are needed. Under this arrangement, a foreman is likely to have different men every time he goes out to work. Moreover, he may be unable to assemble enough men for a gang. If this occurs, work on the ship will be delayed and, the stevedore's only recourse is to place the order for the next call, hoping that enough men will be available in the hall and willing to accept the assignment at that time.

The system of equalization of earnings for foremen and seniority preference for jobs among the men has created an orderly hiring procedure in Houston. In addition, the requirement that a man must work at least 1,200 hours annually to maintain seniority goes far toward establishing a stable workforce in the port. In this regard, the union has done well with the responsibility it carries for administering the hiring procedures.

On the other hand, there is evidence that the present system has certain serious deficiencies. Frequently it fails to provide adequate manpower to meet the needs of the port. Gangs report short because men refuse certain jobs; men accept jobs but then quit before the work is completed; gangs are composed of different men from day to day and not all of the men are competent to perform the jobs to which they are assigned, particularly as winchmen or drivers.

Management has no recourse under the present system to rectify these conditions and to the extent such situations exist, has a reasonable cause for dissatisfaction. In administering its full authority over hiring procedures,

the union has not accepted the accompanying responsibility to control the men. There is no requirement that men must either accept the job offered or lose future opportunity for employment by being dropped to the end of the list, though such a rule does apply to foremen. Even more important, there is no requirement that men, once hired, must remain with the gang until the job is completed.

Unless these situations are corrected, the efficiency of operations in the port will continue to be handicapped, and the services of the men who work in longshoring will not be properly directed to meet port needs.

Alternative solutions to this problem appear to be available to the parties. One would be for the union to establish reasonable rules which would eliminate these conditions. The other would be to agree to the establishment of regular gangs. Time probably would be required to work out the mechanics of the latter, but it offers the possibility of meeting both the employers' need for a workforce on which they can depend and the union's desire for greater job security. Regular gangs assume regular employers.

It would be implicit in such an arrangement that a gang would have preference for available work offered by the stevedore to whose service it was "attached." Further, arrangements could be made to use these regular gangs as extra gangs for other employers when they were needed.

The union's seniority system could still be used both to establish the roster of the regular gangs and to supply extra men as needed for specific operations. It would be important that procedures be developed to give senior men first opportunity to obtain the security of employment implicit in regular gang membership. Regular gangs, once established, should remain as units. This would further tend to insure that the opportunity to perform the available work would go first to the men with greater length of service in the industry.

One of the problems related to present Houston hiring practices is that men refuse to accept jobs, while they wait for a preferred employment opportunity at one of the later hiring times. This practice would appear to be a result of the existence of five starting times for work each day.

Moreover, these numerous starting times appear also to contribute to other practices previously cited as problems. Gangs report short because the men have later opportunities for employment; men leave their jobs before the work is completed to seek work elsewhere at a later hiring time; inadequately trained men serve in gangs because men in the regular workforce wait for later calls. Therefore, it would appear advisable that the parties should give serious consideration to reducing the number of hiring calls.

MANPOWER UTILIZATION

Gang Operations: There is no minimum gang size specified in the West Gulf contract which covers operations in Houston. Stevedores determine the number of men to be hired in the gang based on such variables as the type of ship, the pier to which the ship is assigned, the nature of the cargo, etc. However, some gang sizes have tended to become standardized. On the piers included in the study a 15 or 16-man gang, including both foremen and drivers, generally was used to load or discharge general cargo.

This general cargo gang normally is distributed eight men to the hold; three men on deck; and four or five men on the dock. The deckmen include two winch runners and the foreman who also serves as signalman. On the dock, the workforce of four or five men includes two hook-on men, one or two drivers, and a pileman.

The 16-man gang was the one most frequently observed in the study, although in a few instances an 18-man gang was used. The additional men were added either to the hold or dock sections. The number of men observed in gangs handling heavy lifts ranged from 12 to 17 men, with no consistent pattern. Pre-palletized cargo and containers constitute such a small proportion of the cargo handled in the port that there is no special gang size, so the regular general cargo gang is used.

Cotton operations are handled on a piece rate basis by a 15-man gang, the only fixed gang size in the port. The gang is composed of eight holdmen; three deckmen; and four dockmen. The dockmen may include either a single slinger, and three handtruckers, or there might be two slingers and

two squeeze-truck operators.

In addition to the gangs, there are two "walking foremen" on each ship, one for the foreward hatches and the other for the aft hatches. The "walkers" are union members but are hired directly by the stevedore for each assignment. The walking foremen are under the direction of a "superintendent" for the ship, and each transmits his instructions to the gang foremen at the end of the ship.

Flexibility to reassign men from one position to another within the gang is not barred by the contract but, as a matter of practice, rarely occurs. The contract provides that gangs may be moved from hatch to hatch if the union is notified and gives its approval, but sometimes the gang itself will then refuse to accept the reassignment. Under a union rule individual members of a gang may not be transferred to another gang.

Ship-to-ship transfers of gangs also are governed by the contract. Management must hire a fresh gang for a hatch on a second ship. If, however, the union cannot supply a fresh gang, then a gang may be transferred from ship to ship.

A gang may not be transferred on waiting time. Here, again, as in hatch-to-hatch reassignments, the gang may refuse to accept the transfer.

Manpower utilization problems in the Port of Houston are primarily problems of the hiring system and gang structure. Since management has no share or responsibility for hiring gangmen, it has no recourse when men are inefficient or do not possess necessary skills to perform assigned jobs. They cannot be discharged or otherwise disciplined. Further, the men are completely independent of any ties to the company or to the gang foreman. This creates a problem of absenteeism. Gangs may fail to appear as ordered, or may report short of a full complement. Some men in the gang may quit after work has started. This is particularly likely to occur if a better job opportunity becomes available, such as a cotton operation where higher earnings are usually possible under the piece rate system.

In the absence of any attachment of the men to their foreman, gangs have no basic structure. A gang often is made up of different individuals from day to day. Thus, the

men are unable to develop the degree of teamwork that generally exists among gangs who are accustomed to working together. Moreover, at times when piecework on a cotton operation is available, senior men will take the piecework jobs leaving only junior men to fill general cargo gang jobs, including such positions as winchmen and drivers. Under these circumstances operations tend to become less efficient and manpower utilization less effective. Until the problem of gang structure is resolved, the matter of gang size cannot be properly evaluated.

Observations of general cargo operations in Houston, as in other ports, indicate that the number of men in a longshore gang who can be effectively utilized varies with several factors: (1) the type of cargo; (2) whether it is being loaded or discharged; (3) the amount of sorting required; (4) whether it is handled on pallets or in rope slings or nets, as well as many other conditions. In nearly all ports in the study, however, it was accepted practice to use 10 or 12 holdmen under certain cargo handling conditions. Some of the ports have fixed gang sizes, others do

not. In either case, for specific types of cargo, 10 or 12 men are regularly assigned to the hold section of the gang even when the resulting gang size is larger than the minimum provided in the contract. Study observations indicated that, for much general break-bulk cargo, 12 men can be productively used in the hold. These observations are supported by evidence compiled in a Maritime Cargo Transportation Conference study published in 1957.^{1/} That study reported that the principal bottleneck in cargo handling is the hook, but that, when units which require manhandling are being stowed, productivity increases in direct proportion to the number of men in the hold gang up to a total of 12 men. No instance of the use of 12 men in the hold was reported in the Port of Houston. Rarely were even 10 men assigned to the hold.

^{1/} Cargo Ship Loading: National Academy of Sciences, National Research Council, Washington, D. C. .
Publication No. 475, 1957.

Opinions differ on the relative efficiency of various methods of cargo handling. The Labor Department study is addressed primarily to manpower utilization, not stevedoring methods. There is the distinct possibility, however, that "over-utilization" of manpower could be as significant a factor in this industry as under-utilization of manpower. Samples of shipping costs obtained during the course of this study would indicate that high costs of operations may result from the use of too few men in gangs as well as from too many men.

Although the findings of the manpower utilization study have not included any judgment of the suitability of various manning patterns, they have indicated clearly any redundancy found to exist in the various ports. Conversely, the opposite finding must be made for Houston. The general cargo gang size normally used in this port includes fewer men than were productively utilized in most other ports for a substantial proportion of general break-bulk cargo handling operations.

Management might well give further consideration to the extent to which manpower is being effectively used under their present gang size practices. The union must recognize, however, that until the problems of gang structure and gang responsibility are corrected, effective utilization of the gang is limited, regardless of gang size.

Two other problems involving gang operations were reported in Houston: (1) the dual job assignment of the signalman-foreman, and (2) the need for a training program for winchmen and drivers.

The signalman-foreman, according to management, does not give enough attention to supervision. The union contends that the functions should be divided into two jobs. In all other ports in the study, these are two separate jobs. Observations of cargo handling in other ports indicated that the gang foreman normally moves from deck to dock to hold supervising the men as the needs of the operation require. The signalman, on the other hand, must give his full attention to the progress of the hook. If management believes that more efficient operations would result from a

greater degree of supervision than exists under the present arrangement of two walking foremen per ship, they could increase the number of these foremen to one per gang, the normal complement in other ports, and assign full supervisory responsibility to them.

Need for a training program, particularly for winchmen, was cited by both parties. Each, however, considered it the responsibility of the other. So long as there continues to be no attachment to a job, a foreman, or an employer, gangs may be expected to continue to be composed of different men each time they report for work. Moreover, such gangs may lack completely both experienced winchmen and drivers. Therefore, some program to insure proper training in various assignments would appear to be essential for safety reasons alone.

Terminal Operations: Terminal cargo handling services in Houston, including the receipt and dispatch of cargo and terminal storage, are provided by the Harris County Navigation District, the terminal operator at the public piers,

which includes all general cargo piers except four privately owned facilities. The Harris County Navigation District is not a party to the labor agreement, but employs ILA labor and voluntarily accepts the terms and conditions of the West Gulf Agreement.

Outbound cargo arrives at Houston terminals by rail or truck. In either instance, it is delivered to the terminal rather than to the stevedore. The unloading of the railroad car or truck is handled by car unloaders who are employed by the terminal. The cargo must also be checked by the terminal to verify quantity and condition, to determine measurement, and to complete the usual clerical processing. This checking is done by terminal employees.

Since the terminal may have many berths - particularly the Harris County facility - the car unloaders, clerks and checkers are not assigned to any one berth. The terminal operators maintain their staffs at a central location and can assign employees to any berth at which a truck or railroad car awaits unloading. The car unloaders move the cargo from the railroad car or truck, place it on pallets and

transfer the loaded pallets to the place of rest.

In unloading, these men work in teams of five men for railroad cars, and six for trucks. The car-unloading gang includes a machine operator and four laborers. An additional driver is added when servicing trucks, and two trucks are handled simultaneously. When difficult to move cargo is encountered, all six men combine forces to handle it.

When the car unloaders bring the cargo to the place of rest, it is checked by the shipping company's checkers, and thereafter it is the responsibility of the shipping company. Since there are no preferential berths and ships are not handled regularly at any single pier, the checker who receives the cargo is sent to the pier from the shipping company's central staff, or he may be hired for the day.

When a ship is being loaded or discharged one clerk becomes Steamship Clerk or Clerk Working Ship. He is responsible for all records in connection with locating and placing cargo and the progress of the operation. Cargo is again checked when it is moved from the place of rest and

put aboard ship. When cargo is discharged, a checker directs sorting in the hold and another checks it onto the pile. Trucks or rail cars that take delivery of the cargo are loaded by the terminal car loaders.

There is a substantial amount of flexibility in terminal assignments in Houston. In general, a clerk from the shipping company's regular staff may be sent to do any clerical or checking job. Once assigned, the clerk may be recalled and assigned to another job on another wharf. The only exceptions are the clerks assigned as timekeeper or as Clerk Working Ship. They cannot be delegated any other work while the ship to which they are assigned remains in port. Nor can they be reassigned during the four-hour guarantee period if hired for these specific jobs.

The restrictions on these two jobs, however, were reported to be consistent with their responsibilities. By and large, terminal workers are employed on a fairly regular basis by either the steamship companies or the terminal operators. This factor, together with flexibility in assignments, may account for the absence of any major

manpower utilization problems in terminal operations in the port.

CONCLUDING OBSERVATIONS

In Houston, the contract provides that the stevedore has the option of employing any number of men he may consider proper when doing longshore work. Thus, there are no problems in this port of under-utilization of manpower due to contractual requirements for specified gang sizes. On the other hand, some consideration should be given to the reverse aspect of manpower utilization. Comparison with other ports indicates that, at least for some commodities, larger gangs than those employed in Houston might well be used, particularly in the hold section.

The employment of larger gang sizes, however, would contribute little to increased efficiency in port operations, unless the parties could also solve the manpower utilization problems that have their origin in the hiring system. It has been noted that the lack of any attachment of the men to either the foreman or the employer creates an

instability in the gang structure. The daily changes in the composition of gangs, the lack of union responsibility indicated by the practices of failing to report for work or of leaving jobs uncompleted, and the tendency of senior men to accept only the better jobs, all contribute to this instability. Elimination of these conditions is an essential preliminary to other manpower adjustments.

The most recent technological changes in general cargo handling, namely unitized (pre-palletized and containerized) packaging of cargo, has had little effect on operations in Houston. Only a minimal amount of such cargo comes through the port at the present time, except at one specialized containership operation. Nevertheless, increasing use of unitized cargo packaging is projected for the future in studies of the shipping industry. Therefore, both parties might well give some consideration to the effect on manning patterns of technological advances that can be anticipated over the next several years. If adjustments to such changes are discussed and planned for in advance, the impact on the men who obtain their livelihood from longshoring can be minimized.

PART III

PORT OF GALVESTON

Galveston and Houston both are encompassed by the West Gulf Coast labor agreement. The two ports have much in common. However, all ports differ from one another in some respects. To the extent that conditions reported in the study are the same in Houston and Galveston, and are discussed in Part II of these findings, they are incorporated only by reference in this section on Galveston. Part III, therefore, covers primarily aspects of the study found to be different in Galveston from those in Houston.

LABOR FORCE CHARACTERISTICS

In Galveston, as in Houston, data on employment and hours worked by longshore workers cover only employees working 700 hours or more each year. No information is available on the number of men with less than 700 hours of work. Estimates based on payroll records, however, indicate that the Galveston workforce is highly casual. Only about 22 percent of the more than 4,000 employees in the

industry work more than 700 hours a year.

Within the group of "under-700-hours" employees in contract year 1962-63, the majority, 40 percent of the total workforce, earned \$100 or less and averaged only ten hours of work during the year. About 23 percent more of the men in the workforce during contract year 1962-63, earned between \$100 and \$1,000 in the industry and averaged 97 hours of work. The number in the "under-700-hours" group, about three-fourths of the total workforce, performed nearly one quarter of the work available in the port during the year.

The basic workforce of the industry in the Port of Galveston, those employed 700 hours or more, has averaged slightly under 1,000 men over the six-year period, contract years 1956-57 through 1961-62. In each of those years, the average annual hours of work of employees in this group has been both relatively high and quite stable, ranging from a low of 1,814 to a high of 1,887. Moreover, close to two-thirds of the men in the over-700-hours category have averaged more than 1,200 hours in each year.

Weekly employment of longshoremen, clerks, and checkers in Galveston during the 1962-63 contract year averaged 717 workers. During 29 weeks of the year, the number of men employed was within the range between 500 and 800, which could thus be considered the normal range of employment opportunities in the port. These figures do not include dock labor employed on piers operated by terminal companies. Nevertheless, they provide a significant measure of port needs for workers and emphasize the disparity between those needs and the total size of the workforce. With some 1,000 men who are attached to the industry and regularly work more than 700 hours, there would appear to be little need for the large number of casual employees. Some of the manpower utilization problems in this port which originate from gang instability might be reduced if this large group of casual employees could be eliminated.

HIRING PRACTICES

Although the same collective bargaining agreement governs longshore labor relations in Houston and Galveston,

the two adjoining ports differ markedly in their hiring practices. The longshore locals in Galveston, unlike those in Houston, have not changed hiring procedures which, in general, have been in effect for several decades. There is no seniority preference in hiring in Galveston.

Longshoremen: The method followed by stevedores in ordering gangs differs only slightly from that in Houston. An employer calls the two principal longshore locals for gangs and informs them of the number of gangs required for the end of the ship they will work. The two locals divide the work evenly between fore and aft hatches in the order in which calls are received. There is also a third longshore local whose jurisdiction is limited to three stevedoring companies. Dispatching practices for this local are virtually the same as for the two larger locals.

The major difference in the hiring procedure in the two ports is in the gang "toter" (foreman) system that exists in Galveston. Instead of regular gang foremen, each toter has a following of four men and all gangs are assembled in units of five, each group including a toter. For example,

should an order call for ten men, then the two toters lowest in earnings on the union lists would be dispatched with their men. The toter "first out" would act as the foreman for the entire gang. If a subsequent order calls for 15 men, the next three toters and their men would form the 15-man gang and get the job. The procedure, however, differs slightly if only 13 men are ordered. In that case, two toters and their gangs - a total of 10 men - would be assigned, while the other three would be picked up either in the union hall or in front of the pier. Daily replacements for absentees are hired in the same manner. In the absence of a seniority or any other priority system, the toter is free to hire any one he chooses.

Union officials expressed sharp opposition to any form of seniority hiring. Some of them said, for example, that a young man coming into the industry has "a chance" under the present gang system if he shows up regularly, while under a seniority system he would not. In addition, fears were expressed that under seniority hiring unqualified senior men would have to be hired and this, in turn, would

lead to disputes with stevedores over gang performance. This comment can perhaps be explained by the fact that cotton, by far the port's major commodity, is stowed on an incentive basis. Men who are able to stand the pace set by the men in the gangs can earn as much as \$6 to \$10 per hour. Gangs saddled with individuals physically unable to produce at that rate would earn proportionately less.

The toter is a union member and is appointed to his post by his local. Most toters have been in their present jobs for a number of years, replacements, or additions occurring very infrequently. Should a toter leave the industry, then the senior man assumes this post, if approved by a vote of the local's membership.

Under the system the gang foreman does not hire the complete gang, but only that section of it for which he is toter. Even though each toter may consistently hire the same four men, the gang consist changes from day to day. Moreover, different toters become gang foremen each time a gang is assembled. Thus, the foremen would tend to have little supervisory authority over the gang as a whole.

These conditions of instability of gang structure and limited supervision cause fewer problems in cotton gangs, where the gang shares incentive pay, than in general cargo gangs. For general cargo operations, however, the problems resulting from this gang structure are similar to those outlined for the Port of Houston, with the added factor of even more inadequate supervisory control by the gang foremen.

Clerks and Checkers: Of the limited number of clerks and checkers in the port, nearly half are employed either on a monthly or weekly basis. These clerks are considered regular company employees and are only rarely available for work with other employers.

The remaining men on the roster, about 25 union members and 15 nonmembers, work as checkers and are hired daily "off the board." Since the union local does not maintain an office of its own, the mechanics of the hiring process have been turned over to a telephone answering service. Men willing to work the next day call this service and ask that their names be placed "on the board." As requests are made by employers, a list of available members, or nonmembers if

all members are already hired, is read by the operator. Employers then make their selections and inform the service where and when the men are to report. After hiring hours are completed, 7:00 p.m. for 8:00 a.m. starts and two hours in advance of other starts, a union official calls the service and receives the ordering schedule. He then calls the men at home and relays the information.

Under this system, the employer is free to hire anyone he chooses. There is no seniority system or rotation in assignments. However, all union members must be employed before nonmembers can be hired.

MANPOWER UTILIZATION

Galveston is primarily a cotton port. As much as one-third of the total American export of cotton is handled through this port. Although there are exports and imports of general cargo through Galveston, they are a relatively minor proportion of total operations compared with cotton.

Gang Operations - Cotton: The size of the cotton gang is not specified in the contract, but it is standardized at

15 men. This includes eight holdmen, who work four on either side of the hold; a signalman and two winch runners on deck; and two hook-on men and two machine drivers on the dock. The signalman also serves as the foreman. Unlike other gangs, the cotton gang works on a piece rate basis rather than at an hourly rate. There are two walking foremen, one fore and one aft, employed to supervise the gangs at either end of the ship.

Observations indicated that these gangs work at a very fast pace. This was particularly noticeable in the speeds employed by the squeeze trucks. Both parties agree that the speed of the operation increases the dangers of the work, but pointed out that the pace is set by the men themselves. The gang's speed is, presumably, dictated by its desire to make as much money as possible in the least amount of time, coupled with the individual's competitive need to retain his place among others in the gang. It appears that, from experience, the men prefer a gang size of 15 men. The gangs make their own rules. Thus, they "quarter" every two hours. That is, four men from the dock exchange places with four in

the hold every two hours as long as the work lasts. The objective is to maintain speed which is the common goal of all, through keeping fresh men in the hold.

Gang size is not raised as a problem by either party in reference to the cotton gangs working on piece rates. Based on reports of the pace of that operation, however, a real question exists whether the present practice in cotton handling is in the best interests of either management or men. It cannot be in the best interest of the health of the men to carry on hard physical labor at such a pace all day, much less day after day. It could also be questioned whether this is the most efficient operation from management's standpoint. At all other ports where cotton is handled, except Houston, management uses a 19-21 man gang on an hourly rate, in every case a greater number than the minimum number required by the contract. Presumably, this larger number of men is used because management at those ports believes it to be more efficient. The current practice in Galveston would appear to warrant study by the parties to determine whether the existing complement of cotton gangs

is appropriate.

Gang Operations - General Cargo: Although there is no standard gang size except for cotton, the general cargo gang size for both loading and discharging operations in Galveston is usually 14 men. This gang includes eight holdmen, who work four on either side of the hold; three deckmen, including a foreman-signalman and two winch operators, and three dockmen, including two hook-on men and one machine driver. Exceptions to the use of the 14-man gang observed in the study included an instance in which additional fork-lift drivers were added to the dock section of the gang and another case when four hook-on men were needed to handle cargo in a net.

Other types of cargo, such as heavy lifts and unitized cargo, are a negligible part of the operations in the port and no special gang size practices were reported for handling such commodities.

Flexibility in gang assignments is similar to the practice in Houston. Gangs can be shifted from hatch to hatch, if the union is notified and if the gang is willing. On the other hand, gangs may not be moved from ship to ship

unless the local is unable to supply a fresh gang. Gang moves are not permitted on waiting time, nor can gangs or gang members be moved to the terminal, which is within the jurisdiction of another local.

The problems of gang manpower utilization for general cargo operations in Galveston are basically similar to those outlined for Houston, including "over-utilization," and the comments in Part II of these findings apply also to Galveston. To some degree the instability of gang structure is intensified in Galveston because of the practice of hiring gangs through the toter system.

Terminal Operations: General cargo is handled in Galveston in much the same manner as in Houston. Cotton, however, is handled in the terminal on a piecework basis.

Cotton is brought from the nearby cotton compresses to the terminal by jitneys which haul trailing wagons each of which holds several bales of cotton. Delivery is made to the cotton headers, who are employees of the steamship agent. One header rolls the cotton off the jitney and onto a hand truck; the second wheels it away. A steamship agent generally

employs two to four of these cotton headers. The number employed is a matter of his own choice.

If the cotton bales are scheduled to remain in the terminal, the cotton headers bring them to the pile and deposit them there. If sufficient space is available, they are deposited at floor level. If they must be stacked because space is at a premium, two additional men may be hired, although the original two men sometimes do some stacking.

Headers have no guarantee but they are on a piecework basis. Two men may alternate between heading and stacking work, sometimes at intervals as brief as 15 minutes. The men rotate back and forth from a piecework rate as headers to an hourly rate as stackers.

Flexibility in assignment is not important for cotton headers. They are pieceworkers and are paid only for what they do. There is no need for the steamship company to attempt to move them elsewhere when they have nothing to do, for this does not represent a cost item. They sometimes do work on an hourly basis (stacking) but they have no guarantee

and, when the work is finished, they merely revert to their piecework status. When general cargo rather than cotton is handled the terminal force is reduced by the number of its normal complement of cotton headers.

Cotton is not checked at the time it is received at the terminal but is checked during the loading operation. Often, a single checker works the entire ship, checking the cotton coming aboard. Although the checker is responsible for an accurate check, the demands made upon him often appear to militate against this.

As in Houston, each ship has a Clerk Working Ship, and there is also a timekeeper for each working ship. Except for these positions, there is complete flexibility in both the number of men employed and the assignment of the clerks, checkers, and warehousemen.

In general, no major manpower utilization problems were reported in terminal operations in Galveston. The union, however, believes there is a need for the establishment of additional jobs and a clearer definition of existing ones.

CONCLUDING OBSERVATIONS

Since Galveston is principally a cotton port, it is likely to be less affected than other ports by the technological changes anticipated for general cargo. On the other hand, increased mechanization at the bulk cargo piers in the port has provided an illustration of manpower effects of such changes.

It was reported that after the introduction of bulk sugar-handling methods in Galveston manpower requirements were reduced from 130 men to 32 men per ship. The newest bulk sugar carriers, equipped with gantry cranes, now need only 12 men per ship. Similarly, grain ships which formerly required up to 40 men in each hatch to hand trim the grain, now need only six men per hatch with grain-trimming machines.

The union is understandably concerned with these serious inroads into job opportunities which have already occurred. They foresee the possibility of similar effects if major technological advances occur in general cargo handling, despite the preponderance of cotton operations

in the port. Any important change that reduced manpower needs in cotton loading would, clearly, have a paramount impact in Galveston.

The observations made in Part II, Houston, with respect to manpower utilization, particularly gang structure and gang size, also apply to the Port of Galveston.

It has been noted that the longshore workforce in Galveston is extremely casual. Hiring procedures have been developed in some ports in order to insure job preference for men in the established workforce and to reduce the number of casual workers. A similar course could well be adopted in Galveston. There are many different types of hiring systems that the parties could consider. It is most important, however, that the system should be adapted to the needs of the port, rather than that it conform to any particular pattern.

Moreover, should major reductions in job opportunities occur in the port in the future, there appears to be no basis upon which protection for displaced employees could be planned. The large number of casual workers, plus the

absence of any seniority system or other means to identify men with long attachment to the industry, restricts the possibility of determining who is entitled to protection. To this extent, job security measures would be of limited effectiveness in their application in Galveston. Both a reduction in the number of casual workers and the identification of a regular, stabilized workforce are essential preliminaries to the establishment of job security in the longshore industry in the Port of Galveston.