

AMERICAN BRAKE Shoe Co.

Report. Plants.

WOMAN IN INDUSTRY SERVICE

August 14, 1918.

My dear Mrs. Rantoul:

Your letter of August sixth regarding your investigation of the employment situation in Erie, Pennsylvania is received, and your recommendations regarding the need for a standard wage will be brought to the attention of the Chairman of the War Labor Policies Board. The Chairman of the Board has been negotiating with representatives of the workers and of employers on this subject with promising results. The outcome is of course not yet certain, as the problem is a very large one.

May I suggest that it would be helpful to have the complete report of your investigation of Erie before bringing this matter to the attention of Mr. Frankfurter.

Sincerely yours,

Mary Van Kleeck,
Director, Woman in Industry Service.

Mrs. Lois B. Rantoul,
Women's Branch, Industrial Service Section,
Ordnance Department,
6th and D Streets,
Washington, D. C.

*Report not sent to Mr. Frankfurter
No data on wages or wage variations.*

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ORDNANCE
PRODUCTION DIVISION
WASHINGTON

August 6, 1918

To insure prompt attention,
in replying refer to

No. _____
Attention of

c 3-5845

Miss Mary Van Kleeck, Director
Women in Industry Service
Department of Labor
Washington, D.C.

My dear Miss Van Kleeck:

The Women's Branch at the request of the Cleveland district office, and after conference in Washington with representatives of the Industrial Service Section, Production Division, of the Ordnance Department, and representatives of the Federal and State Employment Service, and the Pennsylvania Department of Labor and Industry, made an investigation of the employment situation in Erie, Pa., and specifically of all factors relative to the large turnover of labor in the large plant of the American Brake Shoe & Foundry Co. of Erie, Pa.

One of the issues in the investigation was "How can the local labor force be stabilized?" After a careful investigation covering this issue, the recommendation was made in the report as follows: "That a standard wage scale for all classes of metal workers be adopted to eliminate all competition in wages between the industries in Erie, and between Erie and other centres of war work." The investigation further showed that "the enormous shifting of workers in and out of Erie has been due chiefly to a lack of uniformity of rates paid in munitions areas," and gave as some of the factors causing the shifting between the industries of Erie as follows:

- (a) Unfair practices in local labor recruiting (the majority of which were made possible by an unstandardized wage).
- (b) Competition in wage rates offered by War and Navy contractors.

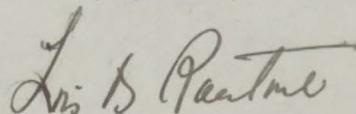
Attached is a list of plants employing metal workers in Erie, Pa.

The Women's Branch is bringing this information to the attention of the Women in Industry Service with the request that they bring it to the attention of the War Labor Policies

Board for possible action towards a standardization of the wages of the metal workers in Erie, Pa. and surrounding districts, for the purpose of lessening the shifting of labor in Erie itself and in the surrounding districts.

By direction of the Chief of Ordnance.

Sincerely yours,



LOIS B. RANTOUL

Asst. Director, Women's Branch
Industrial Service Section.

Report to U.S. Employment of Labor
Bureau of Industrial Housing and Transportation

To C.W.A. Vedlitz

Name	Number of Employees	Products
Am. Brake Shoe & Foundry Co.	6300	
Amer. Sterilizer Co.	128	Sterilizers & Disinfectors
Ball Engine Co.	420	Steam shovels & engines- gray iron castings
Bay City Forge Co.	75	Forgings
Burke Electric Co.	650	Electrical machinery
Bury Compressor Co.	75	Air Compressors
Cascade Foundry Co.	110	Gray iron castings
Erie Art Metal Co.	30	Steel office specialties
Erie Bolt & Nut Co.	100	Bolts
Erie-Buffalo Tube Co.	70	Seamless brass & copper tubes
Erie Car Works	70	Repair. Cars, steel forgings
Erie City Iron Workd	600	Steam engines, boilers, tank work
Erie Engine Works	60	Steam engines
Erie Forge Co)	1800	
Erie Forge & Steel Co.)		
Erie Foundry Co.	225	Steam hammers, gray iron castings
Erie Malleable Iron Co.	1700	Malleable iron castings
Erie Metal Products Co.	25	Metal Stampings, El. Plating
Erie Specialty Co.	375	Aircraft parts
Erie Steel Construction Co.	120	Fabricated steel-elec. cranes
Erie Tool Works	75	Tools, vises
General Electric Co.	5000	
Gormann Bronze Co.	65	Bronze castings
Globe Iron Works	25	Grey iron castings
A. Gottfried & Co.	25	Wood & Metal Organ Parts
Griffin Mfg. Co.	300	Cold rolled strip steel hardware
Hays Mfg. Co.	258	Plumbers, steam fitters & water supplies
Heisler Locomotive works	60	Locomotives
Hollands Mfg. Co.	30	Tools & vises
Jarecki Mfg. Co.	350	Grey iron castings, tools
Gust Krack & Son	35	Sheet steel piping in con- nection with ventilation heating & airblast systems
Lakeside Forge Co.	190	Steel forgings, wrenches

Report to the Commission on
 the State of the Iron and Steel Industry
 in 1914

Modern Tools Works	460	Threading tools, cylinder grinders
Nagle Engine & Boiler Works	145	Boilers, tanks, engines, ee castings
Nagle Corliss Engine Works	135	Air compressors-engines
National Foundry Co.	450	Steel ingots
Parker White Metal & Machine Co.	32	White metal castings
Penna. Boiler Works	100	Boilers & Tanks
Perry Iron Co.	185	Pig iron
Reed Mfg. Co.	230	Vises & pipe tools
Rickert Shafer Co.	48	Tap machines-threading tool
Skinner Engine Co.	147	Automatic Stationary steam engines
Sims Company	60	Condensers, heaters, tanks
Triangle Tool Co.	36	Tools, gauges, fixtures
U.S. Horse Shoe Co.	350	Horse & Mule Shoes, picket pins, repair iron bars
Union Iron Works	130	Steam boilers
Walker Foundry Co.	130	Grey iron castings
H.P. Watson Co.	480	
G.H. Williams Co.	52	Clam shell buckets, cranes for handling coal, etc.

August 6, 1918

Miss Mary Van Kleeck, Director
Women in Industry Service
Department of Labor
Washington, D.C.

My dear Miss Van Kleeck:

The Women's Branch at the request of the Cleveland district office, and after conference with Washington with representatives of the Industrial Service Section, Production Division, of the Ordnance Department, and representatives of the Federal and State Employment Service, and the Pennsylvania Department of Labor and Industry, made an investigation of the employment situation in Erie, Pa., and specifically of all factors relative to the large turnover of labor in the large plant of the American Brake Shoe & Foundry Co. of Erie, Pa.

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- (a) Unfair practices in local labor recruiting (the majority of which were made possible by an unstandardized wage).
- (b) Competition in wage rates offered by War and Navy contractors.

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Board for possible action towards a standardization of the wages of the metal workers in Erie, Pa. and surrounding districts, for the purpose of lessening the shifting of labor in Erie itself and in the surrounding districts.

By direction of the Chief of Ordnance.

Sincerely yours,

LOIS B. RANTOUL

Asst. Director, Women's Branch
Industrial Service Section.

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ORDNANCE
INTRAOFFICE MEMORANDUM

FOR USE WITHIN THE ORDNANCE OFFICE ONLY

DATE _____

FROM: The Mucci's Branch _____

NAME

BUREAU OR DIV.

SECTION

TO: Miss Van Rleet _____

NAME

BUREAU OR DIV.

SECTION

SUBJECT:

Report on Eric, as requested

July 26, 1918.

FROM: Industrial Service Section, Women's Branch,
Ordnance Office, Washington, D. C.

TO: Cleveland District Ordnance Office, Cleveland, O.

SUBJECT: Industrial Survey of Erie, Pa.-July 21-25, 1918.

I. OCCASION FOR SURVEY

- (a) Request from Cleveland District Ordnance Office July 17 that Women's Branch report on employment situation in Erie, Pa.
- (b) Conference July 18th in Washington with representatives of Industrial Service Section, Production, and Women's Branch, Ordnance, and with representatives of Federal and State Employment Service and Pennsylvania Department of Labor & Industry.
- (c) Survey of Erie made July 21-25, by Misses Cornell and Halsey and Mrs. Rantoul, of Women's Branch, Miss Harnish, of the Pennsylvania Department of Labor & Industry, and Mr. Kelly, of the Cleveland District Ordnance Office.

II. SCOPE OF SURVEY

1. Issues

- (a) What are the possibilities of the expansion of Erie as a manufacturing centre for war industries?
- (b) How can the local labor force be stabilized?
- (c) In how far is the local labor supply exhausted by essential industries?
- (d) Can assurance be had that new equipment for American Brake Show & Foundry Company would be manned?

2. Findings

- A. Erie as a centre of war industry (Appendix 1)
 - (a) General aspect
 - (b) Industries and industrial practices
 - (c) Labor supply

(d) Housing.

(e) Transportation

B. American Brake Shoe & Foundry Company: Employment management (Appendix 2)

III. SOURCES OF INFORMATION

- (1) Chamber of Commerce
- (2) City Officials
- (3) Department of Labor, Housing Bureau
- (4) Federal Employment Bureau
- (5) Leading Industries
- (6) Local Draft Boards
- (7) Manufacturers Association
- (8) Transportation Companies
- (9) Social Agencies
- (10) Trade Union Officials

IV. CONCLUSIONS

1. The expansion of Erie as an industrial center is limited only by the available local labor supply. Transportation facilities are adequate for more extended shipping. Industrial establishments are located in the outskirts of the city, where additional houses could easily be erected without overloading the local transportation facilities.
2. The enormous shifting of workers in and out of Erie has been due chiefly to a lack of uniformity in rates paid in other munitions areas, and to lack of housing in Erie, which state has been improved recently by the building of additional houses by the Government. A large amount of shifting is between the industries of Erie, and is due in part to the following factors:
 - (a) Unfair practices in local labor recruiting
 - (b) Competition in wage rates offered by war and navy contractors.
 - (c) Pro-German attitude of large group of local inhabitants.
 - (d) Profiteering in staples and in rents in certain localities
 - (e) Temporary lapsing of government contracts.

3. The local supply of male labor seems to be exhausted by essential industries, though it is probable that by training unskilled workers, part of the increasing demand for skilled workers could be met locally.
There is very slight employment of females in war industries, and it is believed that little difficulty would be met in drawing more women into industries suited to their abilities.
4. Industrial practices at the American Brake Shoe & Foundry Company indicate that a high per cent. of the labor turnover is due directly and indirectly to the poor condition of the machine tools in Plant A, and that the higher wages offered to certain classes of workers on Navy contracts is an important factor. Failure of raw materials supplied by the Government has caused enormous disintegration in the working force on several occasions.

V. RECOMMENDATIONS

In analyzing the causes of industrial instability in Erie, the weight of evidence points directly to the acute competition for workers between war industries as of primary importance. The following recommendations are offered as a means of relieving this situation:

1. That a standard wage scale for all classes of metal workers be adopted to eliminate all competition in wages between the industries of Erie and between Erie and other centres of war work.
2. That recruiting of labor be regulated through the Federal Employment Service, so that no worker employed on war contracts be induced to leave that work for work in another shop.
3. That efforts be made by the Ordnance Office to regularize the letting of contracts and the delivery of materials to the end that no unnecessary disintegration of the working force in factories on essential government work be reduced.

LOUISE CORNELL
OLGA S. HALSEY
LOIS B. RANTOUL

July 26, 1918.

Appendix I.

SUBJECT: Erie as a Centre of Manufacturing for War Industry.

A. GENERAL ASPECTS OF ERIE.

The city of Erie is locally estimated to have a population of 105,000 in 1918, an increase of 28% over the census of 1915. This figure does not, however, include the population of the suburban districts contiguous to the city, in which are located some of the large industrial plants, and in which a somewhat greater proportional increase is indicated. The general impression of its social forces from an industrial standpoint is clearly dominated by its Manufacturers Association which is practically 100% organized. Labor on the other hand is organized to a far lesser degree; in fact seems below the normal organization of most places of its size. The population is reported to be under normal conditions 70% German which suggests a strong pro-German feeling in the city, the results of which are said to show themselves insidiously in the industrial situation.

B. INDUSTRIES & INDUSTRIAL PRACTICES

k. Types of Industries

The manufacturing of metal products is the industry employing the largest number of workers; one textile mill, two breweries, one paper mill, several hardware and rubber factories being the chief non-metal plants. It is estimated by the Chamber of Commerce that 90% of the output is in war essentials. Government contracts have been placed here by Ordnance, Air Service, Quartermaster, Medical, Navy and Shipping Board.

The accompanying list shows some of the leading establishments, types of work, and number employed.

II. Increase in Number employed 1916-1918.

- A. The Industrial Directory of Pennsylvania Department of Labor & Industry for 1916 reports 15,000 men and women employed in industrial establishments in Greater Erie. Of this number less than 2,000 were women.
- B. The Chamber of Commerce estimates June 1918, 27,000 males and females were employed in greater Erie factories, in comparison with figures presented in the Industrial Directory for

July 26, 1918.

Appendix 1.

-2-

1916 and the accompanying table indicates an increase in numbers employed in leading industrial establishments of from 7% to 200%. In addition to these factories is the American Brake Shoe & Foundry Company, which has developed an entirely new organization of 6300.

III. Competition for Workers

With the increased demand for skilled workers, competition between local industries has become intense. Several cases were reported where a skilled man in the employ of one company was offered double pay to work in another shop. There is no standard wage rate in the community, which factor increases the tendency to instability among workers. The Erie Forge Company for example is said to be in a position to advance rates above any competitor.

IV. Summary

The expansion of the war industries of Erie has promoted intense activity in the procurement of labor. This activity seems not, however, to have been uniformly accompanied by features of employment management tending to adapt the worker to the job, systems of training, reduction of turnover, etc. On such plans the manufacturers should be urged to unite.

Erie, Pa., July 5, 1918.
Report to U.S. Department of Labor, Bureau of
Industrial Housing and Transportation

Form S.4

To C. W. A. Veditz.

Name	Number of Employees	War Contracts	War Essentials	Products.
Am. Brake Shoe & Mfry. Co.	6300	yes	yes	
Emer. Sterilizer Co.	128	yes	yes	Sterilizers & Disinfectors
Ball Engine Co.	420	yes	yes	Steam shovels & engines-gray iron castings
Bay City Forge Co.	75	yes		Forgings
Burke Electric Co.	650	yes	yes	Electrical machinery
Bury Compressor Co.	75	yes	yes	Air Compressors
C. E. Carter Col	85			Mechanical toys.
Cascade Foundry Co.	110	yes	yes	gray iron castings
Constable Bros. Co.	135		yes	Finished wood work & lumber
Continental Rubber Works	535	yes	yes	Rubber goods
Dunn Brick Works	33	yes	yes	Building brick
Erie Art Metal Company	30			Steel office specialties
Erie Bolt & Nut Company	100	yes	yes	Bolts
Erie-Buffalo Tube Co.	70	yes	yes	Seamless brass & copper tubes
Erie Burial Case Co.	40			Caskets
Erie Car Works	70		yes	Repair, cars, steel forgings &
Erie City Iron Works	600	yes	yes	Steam engines & boilers, tank
Erie City Mfg. Co.	25		yes	Agricultural implements. wk. wood handles.
Erie Engine Works	60	yes	yes	Steam engines
Erie Forge Company	1800	yes	yes	
Erie Forge & Steel Co.		yes	yes	
Erie Foundry Company	225	yes	yes	Steam hammers, gray iron casti
Erie Malleable Iron Co.	1700	yes	yes	Malleable iron castings nga
Erie Metal Products Co.	25	yes	yes	Metal Stampings-El. P. Plating
Erie Specialty Company	375	yes	yes	Aircraft parts
Erie Steel Construction Co.	120		yes	Fabricated steel-elec. cranes
Erie Stove & Mfg. Co.	50	yes	yes	Gas ranges & heating stoves
Erie Tool Works	75		yes	Tools, vises
General Electric Co.	5000	yes	yes	
Hermann Bronze Company	65		yes	Bronze castings
Globe Iron Works	25	yes	yes	Gray iron castings
A. Gottfried & Co.	25			Wood & Metal organ parts
Griffin Mfg. Co.	300	yes	yes	Cold rolled strip steel hrdw.
Griswold Mfg. Co.	300m	yes	yes	Cooking Utensils
Hammermill Paper Co.	870	yes	yes	
Hays Mfg. Company	258	yes	yes	Plumbers steam fitters & water supplies
Heisler Locomotive Works	60	yes	yes	Locomotives
Hollands Mfg. Co.	30		yes	Tools & vises
Jarecki Mfg. Co.	350	yes	yes	Grey iron castings tools, valves, machines, etc.

Name	Number of Employees	War Contracts	War Essentials	Products.
Johnson Lumber Co.	25			Finishing lumber for indirect war contracts
Kalbfleisch Corp.	135	yes	yes	Heavy Chemicals
Gust Krack & Son	35	sub-contracts for U.S. Gov.		Sheet steel piping in connection with ventilation, heating & air blast systems
Lovell Mfg. Co.	390			Clothes Wringers
McCreary Mfg. Co.	50	Not direct	yes	Food containers, tubes for roller bearings
Lakeside Forge Co.	199	yes	yes	Steel forgings, wrenches
Metric Metal Works	400	yes	yes	
Modern Tool Works	460	yes	yes	Threading tools, cylinder grinders
Nagle Engine & Boiler Wks.	145	yes	yes	Boilers, tanks, engines, castings
Nagle Corliss Engine Wks.	135	yes	yes	Air Compressors-Engines
National Foundry Co.	450	yes	yes	Steel ingots.
Parker White Metal & Machine Co.	32	yes	yes	White metal castings
Penna. Boiler Works	100	yes	yes	Boilers & tanks
Perry Iron Co.	165	yes	yes	Pig Iron
Reed Mfg. Co.	250	yes	yes	vises & pipe tools
Rickert-Shafer Co.	48		yes	tap machines-threading tools
Henry Shenk Co.	40		yes	Houses & factory Bldgs.
Skinner Engine Co.	147	Direct & Indirect	yes	Automatic Stationary engines, steam
Sims Company	60	yes	yes	Condensers, heaters, tanks
Straus Mfg. Company	75		yes	Pants, Overalls
Standard Mfg. Company	200	yes	yes	Trousers
Triangle Tool Co.	36		yes	Tools, gauges, fixtures
U.S. Horse Shoe Co.	350	yes	yes	Horse & Mule Shoes, picket pins repair iron bars
Union Iron Works	130	yes	yes	Steam boilers
Vulcan Rubber Co.	60	Products under gov. tests.	yes	Auto inner tubes and tire accessories
Walker Foundry Co.	150	yes	yes	Grey iron castings
H.F. Watson Co.	480	yes	yes	Roofing paper-asbestos material
G.H. Williams Co.	52	yes	yes	Clam shell buckets, cranes for handling coal, coke, etc.

Number of companies employing:

25 to 100 employees...40
100 to 500 employees...35
500 to more employees..10

C. LABOR SUPPLY

I. Sources of Labor SupplyGrowth of Local Population 1910-1918.

Because Erie is not in the center of an extended industrial territory labor supply is drawn from the immediate vicinity. The city of Erie has expanded in population from 66,000 in 1910 to 82,000 in 1915 according to census figures. Local estimates which appear fairly conservative place the present population of Erie city at 105,000 in 1918,--an increase of 28.1% over 1915 census figures, and of 19.3% over the estimated population of 1916.

The growth of population in the districts just outside the city limits and contiguous to the largest industrial plants is even more important as a source of labor supply. The only figures available indicate that the population increase in this area has been at a still more rapid rate than within the city limits, making a population of approximately 4,000 in 1916. It is in this section that the new houses recently built by the Government and by the large plants of Erie are located, so that the increase in the last year and a half has been probably still more rapid. It is possible that this district now totals 10,000, making a total population of 115,000 for Greater Erie. This estimate is conservative in comparison with other estimates current in Erie.

II. Effect of the Military Service upon Labor SupplyA. Numbers Drafted

The three local boards covering the city of Erie report a total of approximately 2,900 men "inducted and called for induction" to date.

B. Numbers Enlisted

The army recruiting officer for the Erie District reports 883 enlistments in the Army from January 1, 1918 to July 24, 1918,. Of this number approximately one-half or in the neighborhood of 440, are from the city of Erie. The navy recruiting officer reports 299 enlistments in the navy from August 1, 1917 to July 25, 1918 for the recruiting district of Erie which includes out-lying territory. Many of the men enlisting in the navy are transients.

July 26, 1918.

C. Exemptions

District Board No. 2 of Western Pennsylvania reports 2,165 "industrial and agricultural exemptions" from December 15, 1917 to June 29, 1918 for the city of Erie. Of this number it is probable that the majority are industrial exemptions. This is more than the number of men drafted in the same six months' period.

D. Crowder "work or fight" Order

The local draft boards are taking no aggressive steps to enforce the order; action is taken only when offenders are called to the attention of the Boards.

E. Significance of the Draft.

The numbers drafted since the beginning of the War represent 2.9% of the estimated population of 105,000 for the city of Erie in 1918; and 10.7% of the 27,000 factory employees (male and female) as estimated by the Erie Board of Commerce. The draft, of course, draws upon all classes of the population so that the factory workers have not been depleted by 10%. Any such depletion must be considered in connection with the estimated addition of 5,000 to the population of the city of Erie in the single year 1917 to 1918 and the growing population in neighboring districts. It is apparent, therefore, that the draft, numerically considered, is a factor, but not a dominant one in the labor shortage. The large number of exemptions for industrial and agricultural workers may be taken as an indication that men essential to industry have been given deferred classification.

III. Available Supply of Male Labor.

The expansion of Erie's industries compared with the population increase indicates that industrial expansion has been the more rapid of the two. An estimate made by the Erie Board of Commerce places the number of persons employed in industries of Greater Erie at 27,000. Compared with 15,000 reported employed in 1916 by the Pennsylvania Department of Labor, this is an increase of 75%. Data from a group of twenty-two plants gathered by the Federal Employment Service shows that in these plants persons employed have increased 50.9% from 1916 to May 1918. Data gathered in July 1918 by the Erie Board of Commerce indicates a total expansion of 29.6% since 1916 in all industries.

July 26, 1918.:

These estimates indicate that industrial expansion of the last two years has outrun the estimated population increase within the city limits of Erie and probably the increase for Greater Erie. In this connection it should be recalled that only conservative population estimates have been given which maybe too low.

Scarcity of male labor is evident from returns made in May, 1918 by thirty-four of the leading industrial establishments of Greater Erie to the Federal Employment Service. Data from numbers of men employed in May constituted but 79.4% of the male labor requirements of this group of plants.

This condition is more marked in Erie than in other towns and cities in the jurisdiction of the local office of the Federal Employment Service. Reports from forty-one plants outside of Greater Erie indicate that male labor employed in May constituted 98.3% of that needed by this group of plants.

A word of caution should be added. In interpreting the questionnaire of the Federal Employment Service some firms may have taken "numbers needed" to mean numbers needed because of future expansion; not the present need.

IV. Available Supply of Female Labor

The ease with which firms employing women obtain workers at relatively low wages indicates that woman labor is plentiful. For example, the Continental Rubber Works employing 245 women pays a starting wage of 20¢ an hour; The Hammermill Paper Company 22¢ an hour and the Erie Specialty Company (doing war work) pays 25¢ an hour.

Industries of Greater Erie normally employ but a small proportion of women workers. In 1916 the women employees in the fifty-five establishments employing fifty or more workers and employing 84.7% of all factory employees, constituted but 10.7% of the 12,723 employees of these establishments. Of the fifty-five plants, only twenty-nine reported any women employed; in others, the numbers of women employed were so small as to suggest that the women were employed in the office only.

The employment of women in factories has increased since 1916. Figures available for fifteen establishments show

July 26, 1918

that those plants which in 1916 employed 654 women, employed 1169 in May of 1918--small numerical increase, but an increase of 78.7%. The decreased number of men and the increased number of women employed in one or two factories suggest the possibility that women are directly or indirectly replacing men. These figures are given in greater detail in the attached table.

The rapid and great numerical increase in the population of Greater Erie compared with the slight numerical increase in women employed in factories suggests that Erie contains a large potential reserve of female labor. The problem is to make conditions of labor and wages such that this reserve may be attracted to the industries of Erie.

V. Shifting of Workers

Shifting of male labor is a frequent complaint in the metal trades.

Reports made to the local office of the Federal Employment Service by thirty-four of the leading industrial establishments of Greater Erie indicate that shifting is common. Figures available for twenty-eight of these plants indicate that the total number of men employed by these plants as a group during the six months--November 15--May 15-- was 149% of the men employed in middle of May. This shifting is most marked in the metal trades. For example, of nineteen plants employing 100 or more men, in eleven the hirings during the six months' period were 100% or more than the force employed in May; of these nine are in the metal trades group. In the remaining eight plants the hirings were less than 100%, and of these only four are in the metal trades group.

Comparative figures to show the shifting among women are not available for any large number of industrially employed women. In the Continental Rubber Works employing 245 women in May the hirings during the six months' period were 102% of the total number employed in May.

These figures are merely an indication of shifting; they are not conclusive, since the returns to the questionnaire of the Federal Employment Service take no account of possible expansion during the six months' period.

July 26, 1918.

VI. Shifting in Particular Classes of Labor

The experience of the local office of the Federal Employment Service suggests that the "turnover" among unskilled labor is 600%; among semi-skilled, 300%; and among skilled, 250%.

VII. Causes of Shifting of Workers.

A. Variation in Wage Rates

Variation or reported variation in wage rates is the prime cause for shifting.

B. Methods of Labor Recruiting

Reports to the Federal Employment Service made by eighty-four plants in and without Erie reveal an almost complete absence of scientifically planned methods of recruiting. Some plants report no special methods, while the majority rely upon newspaper advertisements and applications at the factory. Others have employment departments and representatives in the field recruiting labor. More objectionable still is the "stealing" of labor, said to be practiced by some plants.

C. Stoppage of Work

An intermission in contracts not infrequently causes a plant to curtail its work and to dismiss its workers. (See Appendix 2) This increases unnecessarily the amount of shifting.

Inability to obtain raw materials is also a cause for stoppage of work and the dismissal of the workers. (See Appendix 2)

VIII. Summary.

Male labor is scarce. There is a potential supply of female workers and a limited supply which may be drawn from non-war industries. A decrease in shifting of workers, which is a serious factor in the metal trades, could be accomplished by concerted action of contractors and federal authority, and would go far toward relieving the situation.

D. HOUSING

The problem of housing the rapidly increasing number of workers coming to Erie has been a serious one, and has evidently had a great deal to do with the general restlessness of the labor situation. As far as can be learned, the figures below will give the approximate situation in numbers of accommodations recently built, available, and under construction.

I. New Houses within City Limits (occupied)

(1) 1915	410	
(2) 1916	669	(30 additional, made into 2 family houses)
(3) 1917	544	
(4) 1918	155	(July 17th)

Note: Local real estate companies are building for sale, rather than to rent.

II. New Houses outside City Limits (partially occupied)

(1) General Electric approx. 576 (family houses)

III. New Dormitories

(a) Completed	9 total	450 rooms
General Electric		
(b) In course of construction	18 total	934 rooms
American Brake Shoe		

IV. New Apartments (completed and partially occupied)

(1) American Brake Shoe approx. 199- of 3, 4, and 5 rooms

V. Houses and Apartments available for use now

(1) Family houses	109
(2) Apartments (light housekeeping)	43
(3) Rooms, with & without brd.	2000 (for one to three people)

VI. Summary

The problem of sufficient small houses and light house-keeping apartments in Erie is not yet adequately solved, although the situation is growing better instead of worse. The Government in co-operation with the General Electric Company and the American Brake Shoe & Foundry Company are building as rapidly as possible simple houses, dormitories and apartment houses. The Department of Labor (Eidlitz Commission) has already bought sufficient land in the eastern,

July 26, 1918.

-4-

western and southern portions of Greater Erie (outside city limits) for 800 to a 1000 houses, and expects to begin building as soon as possible. These houses would undoubtedly relieve the present situation and allow for further expansion of the population.

Private building of houses is almost at a standstill, owing to the fact that all the available labor supply for building is being employed on the government houses. There seems to be at present no shortage of rooms. The report of the Erie War Workers Housing Bureau, which is doing splendid work, is that there are plenty of rooms available (ranging from \$2.50 to \$5.00 without board) and an untouched future supply.

There also seems to be no shortage of restaurants and eating places, for those rooming without board.

There has been and still is undoubtedly gross profiteering in the renting of rooms, apartments and houses, but the situation is growing slightly better, and should grow much better, though the work of the Erie War Workers Housing Bureau which is registering all available houses, rooms and apartments, and in that way stabilizing the rents asked.

It has been rumored that discrimination has been made against the workers at the American Brake Shoe & Foundry Company in charging them higher prices, not only for rent, but also for food.

Taken as a whole, Erie is trying to solve her housing problem intelligently and as rapidly as possible, and evidences seem to point to ultimate success.

E. TRANSPORTATION

1. Railroads*

(1) Pennsylvania (east)	team trackage	26	cars
	" " in const.	56	"
	freight house trackage	137	"
(2) N.Y. Central	team trackage	40	"
	freight house trackage	60	"
(3) Nickel Plate	team trackage	60	"
(4) Erie & Bessemer	team trackage	18	"
	freight house trackage	20	"
(5) Pennsylvania (west)	team trackage	77	"
	freight house trackage	20	"

* Figures obtained from railroad officials.

The five railroads at Erie seem to be handling outgoing and ingoing freight and raw materials in a satisfactory manner. Their freight trackage facilities seem adequate, and no congested points were found. There is also ample room for freight yard expansion.

II. Street Railways.

Buffalo & Erie Traction Company

The street car service has been inadequate at rush hours to handle the number of men and women going to and coming from work. At present, however, the situation has been greatly relieved by additional facilities which have been provided through the construction of a double track line east and west, connecting with existing lines thereby permitting more frequent operation of cars throughout the city.

III. Boat Line

Great Lakes Transit Line.

There is only one line of boats at present. These boats are used almost solely for the conveyance of raw material such as iron ore, coal and wheat.

Owing to the fact that the Government has taken many of the boats, the water routes of Erie have been considerably cut down in their usefulness.

IV. Summary

Taken as a whole, the transportation facilities of Erie are good. The five railroads make a distribution of finished products in all directions a comparatively easy matter, especially under the simplified billing facilities of government regulation. There are no congested points for freight within a wide area around Erie, so that the movement of raw material and finished product is rapid. The facilities for improved street car service are increased, and further increases are contemplated. The water routes can, of course, be made of greater value when tonnage can be made available.

July 26, 1918

Appendix 2.

SUBJECT: Employment Management- American Brake Shoe
and Foundry Company, Erie, Pa.

I. NUMBERS EMPLOYED

July 20, 1918 - 6903
Figures show steady weekly increase
from 5720 May 31st to 6903 July 20th.

II. NUMBERS LEAVING EMPLOYMENT

Figures indicate average weekly turnover of approximately 30% for all shops. Shop A shows a higher rate than B or C- a fact that may be attributable to rundown equipment.

III. CAUSES OF LEAVING EMPLOYMENT

In report of June 29th to Cleveland Office, Lieut. Pettingill reports the most important causes of leaving as:

- (1) Insufficient pay
- (2) Dissatisfaction with work
- (3) Equipment not in A 1 condition
- (4) Living Conditions in Erie
- (5) Hours of work

A. Insufficient pay

Dissatisfaction with work
Equipment not in A 1 condition

The first three causes mentioned bear directly on conditions of equipment in Shop A; for example, with present heavy "Davis" or "Fairbanks & Morse" engine lathes, considerable energy is spent in chucking the forging. The work of 155 m/m shell is too small for these tools. Hence energy is wasted and time lost. Good workmen will not remain at work, and poor ones are discouraged that they cannot produce high output.

B. Living Conditions in Erie.

The housing situation has been somewhat relieved by facilities for 200 families in

the vicinity of the shop. Dormitory accommodations for 1000 individuals are under construction. In addition to this Department of Labor rooming register will relieve situation.

C. Hours of Work-three 8 hour shifts
Management reports that repeated efforts to encourage men to work overtime have brought little result. Hence it is probable that dissatisfaction with "hours of work" is based on failure to make day rate, or to monthly turn of shift bringing night work.

D. Other Causes of Turnover

1. Shortage of Raw Material

Failure of supply of base forgings and copper bands for 9.2 shells, and of jacket forgings for guns has caused numbers of men to leave, within the last months. On several occasions entire groups were put on day rate through failure of incoming raw materials. At this time large numbers drifted out of the Company's employ.

2. Competition for Workers

Wage inducements offered by other concerns in Erie and out of Erie caused men to leave continually. It is rumored that pro-German activity may be at the back of some of these cases.

IV. RATES OF PAY

45¢ per hour-operators.

65-85¢- machinists and tool makers

\$6-\$8 per day average piece work earnings

(Greatest shortage is among maintenance men)

The basic wage scale is approximately that of the Shipping Board, and no reductions or increases are reported during the past six months.

V. TRAINING

New operator is placed at machine with experienced worker, who instructs him for several days. During this time the new worker receives basic 45¢ rate, teacher receiving production bonus on putput. The establishment of a training school for light work on guns is under consideration.

VI. EMPLOYMENT OF WOMEN

Very little work can well be performed by women under present conditions. Some work on breach blocks, and on gun boring lathes could be handled by women under close supervision. With new machines, equipped with compressed air control devices, it is thought women's services could be utilized to advantage on 155 m/m shell.

VII. SUMMARY

The high rate of turnover in evidence at the American Brake Shoe and Foundry Company is due to rundown equipment, to competition for workers, and to failure of a continuous flow of raw material, rather than to fault of management. It is believed that the turnover would be reduced by re-equipping Shop A in a fashion which would allow the later use of women's services to meet the growing labor shortage.

VIII. RECOMMENDATIONS

- A. That Shop A be thoroughly overhauled and equipped with tools adapted to 155 m/m shell.
- B. That a training school be established for teaching new operators.
- C. That efforts be made by the Production Division to assure a continuous supply of forgings and other component parts.

WOMEN'S BRANCH.

American Brake Shoe + Foundry Co.

WOMEN IN INDUSTRY SERVICE

July 20, 1918.

My dear Mrs. Rantoul:

At Miss Van Kleeck's request I am enclosing a copy of Lieutenant Pettengill's report on the American Brake Shoe and Foundry Company.

Very truly yours,

Secretary to Miss Van Kleeck

Mrs. Lois B. Rantoul,
Industrial Service Section,
Women's Branch,
Ordnance Department,
Washington.

COPY

War Department
Cleveland District Office
Production Division -- Ordnance Department
2036 East 22nd Street,
Cleveland, Ohio.

June 29, 1918.

From: Lieut. Pettengill, Cleveland Ordnance Production Division,
To: Chief, Cleveland District Office.
Subject: Report on the American Brake Shoe and Foundry Co., Erie, Pa.

1. With the intention of securing information relative to the high turnover the labor at the above plant, I, personally, interviewed on June 26th and 27th, the employees as they left the employ of this Company, and further information for this report was obtained from the reports made out by the Employment Department of the American Brake Shoe & Foundry Company.

2. This investigation shows that for the month of May the following labor turn was out:

Plant A- employed 1331;	Left employment 788
Plant B- employed 967;	Left employment 884
Plant C- employed 613;	Left employment 464

3. This shows that of those employed during the month of May, that in Plant A 59% quit, in Plant B 91% quit and in Plant C 75% quit. In all the plants they employ about 6300 and in the month of May 2312 left their employment. This represents a turnover of 35%.

4. From interviewing the men, who left, and going over some of the reports, the reasons for the men leaving may be classified as follows:

1. Insufficient Pay
2. Dissatisfaction with the work.
3. Equipment not in "A-One condition.
4. Living conditions in Erie
5. Hours of Labor.

5. 1-(a) It appears that about 37% of the employees quit for reasons which can be directly attributed to insufficient pay, the wages being in some cases less than they can earn in other cities and in other cases the relative increase of pay not being enough to induce the men to remain in Erie. An operator works on a piece rate with a minimum of 45% per hour, or \$3.60 per day, and some operators complain that they often do not exceed the day rate.

6. 2-(a) It is the practice of this Company to take on men, inexperienced as operators, and place them under the instructions of an operator with the pay of \$3.60 per day. It is estimated that an apt apprentice, under these instructions would be a competent operator in three or four days. Some of the men interviewed complained that they were not properly considered while working as an apprentice. Some had been there two to four weeks and left because they were still on the 45%

an hour rate, and were not given a chance to operate a machine. Others had been there two days and quit because they were discouraged, while if they had been given a little more consideration they might have made operators out of these men. Some stated that they only had a chance to operate one or two hours a day and that it was the practice of the foreman to take a machine away from them if some other operator's machine broke down.

7. 2-(b) Some of those hired were entirely unsuited for factory work. Some complained that the work was too hard for them. Others objected to the dirty condition of Plant A. Others stated that 9.2 work was too heavy for them. Others that they were improperly assigned. For example, a man who was employed by them for six months as a varnisher on the British Contract was re-hired and given a job trucking. In one day on Operation three, there were at least four men quit and gave for their reason that the Company had required them to perform three operations whereas heretofore they had been required to perform but two operations on Operation three and as a result their pay dropped to about day rate, where previously they had earned from \$7.50 to \$8.00 a day.

8. 3-(a) They also stated that the equipment referring to the 21 amalgamated lathes, were not in the best of condition to insure them constant production. There was a similar complaint that some of the threading equipment in Operation 11, in Plant B, is not in the best of condition. In the factory I noticed that in the bank of machines used for boring the shell, out of thirty-five machines they were expected to be in operation, fifteen were idle. This was partly due to lack of operators, partly because they were shut down for repairs.

9. 4-(a) The cost of living in Erie is considered to be very high, and there are a few satisfactory places for boarding and rooming.

10. 5-(a) Some of the men object to coming to work at twelve o'clock, at night caused by rotating shifts. At the end of the month a number of men quit rather than to go on this twelve o'clock night shift.

11. As a result of visits to the plant and from discussion of conditions affecting the production of their contracts, it seems worth while to consider the following points:

1. Revision of wages and piece work rate.
2. The establishment of a bonus system for foremen based on production.
3. Change from three shifts of eight hours to two shifts of ten and twelve hours each.
4. Establishment of a closer relationship between the employee and the management.
5. Establishment of a school for instruction for making operators.
6. The establishment of a welfare department.

Cleveland Ordnance Production Division,

By: I. W. Pettengill,
Lieut. Ord. R. C.

American Brake & Shoe Foundry Co

WOMEN IN INDUSTRY SERVICE.

July 20, 1918.

My dear Miss Cornell:

At Miss Van Kleeck's request I am enclosing
a copy of Lieutenant Pettengill's report on the American
Brake Shoe and Foundry Company, and also a copy of Miss
Van Kleeck's letter of July 19th to Mr. Scovil.

Very truly yours,

Secretary to Miss Van Kleeck.

Miss Louise Cornell,
Philadelphia District Ordnance Office,
1710 Market Street,
Philadelphia, Pennsylvania.

COPY

War Department
Cleveland District Office
Production Division -- Ordnance Department
2036 East 22nd Street,
Cleveland, Ohio.

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