

TENNESSEE VALLEY AUTHORITY

Division of Navigation Development and Regional Studies

Watts Bar Nuclear Plant

CONSTRUCTION EMPLOYEE SURVEY

May 1976

Prepared by

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Results of May 1976 Survey

of

Watts Bar Nuclear Plant Construction Employees

In May 1976, TVA conducted the third survey of construction employees at the Watts Bar Nuclear Plant near Spring City, Tennessee. This survey was taken as a part of a continuing program to evaluate the temporary impact of large TVA construction projects. At the time of the survey, construction employment was at the projected peak of about 2,800.

From the survey, the following information was obtained: (1) the number of employees who moved into the area and where they moved to, (2) the number of employees moving into the area who brought their families, (3) the total number of children accompanying families moving into the area and how many were of school age, (4) the kind of accommodations selected by the new arrivals, and (5) the number and location of workers who already lived in the area.

Information for the survey was obtained from a questionnaire distributed to all employees--both the trades and labor hourly (referred to in the following table as Hourly) and the salary policy annual (referred to in the following table as Annual). Of the approximately 2,800 questionnaires distributed, 2,490 were returned with usable information. Table 2 contains the towns where all surveyed employees live. The employees in each town are categorized into those who moved there (765) and those who were already living there (1,725). Figure 1 shows the area surrounding the construction site with the towns where employees live underlined (if the towns were shown on the base map). Of the 765 employees who moved into the area, 668 responded to questions concerning accommodations and family status. This information is contained in Table 1.

Table 3 contains selected data from all TVA surveys. To make the data comparable, the percentages calculated from actual survey data were applied to the total number of employees. This assumes that the survey sample accurately reflects the situation of the total work force. It is possible that a bias is introduced due to nonresponse, but there is no obvious reason to expect nonrespondents as a group to differ significantly from that portion of the work force which returned questionnaires.

The nearby town of Spring City and surrounding area has continued to absorb the largest proportion of the employees moving into the area, but its share declined significantly from the first two surveys. In the first two surveys, the Spring City area absorbed 37% and 35% compared to 29% in this survey. However, this decrease did not produce a second major mover concentration; rather, small increases were noted in several other communities. Movers to the Athens and Decatur area rose from 6% and 7%, respectively, to 10%; while Dayton rose from 4% to 5%. However, movers to the Ten Mile area dropped from 10% to 7% and in the Kingston area from 8% to 7%. No other community contained 5% or more of the movers. The communities discussed above account for about 69% of the movers. The remaining 31% are distributed among at least 34 different communities at varying distances from the site ranging from Chattanooga to Clinton.

Overall, the housing choice distribution finds 41% of the movers in houses, 37% in mobile homes, 16% in apartments, and 6% in sleeping rooms. This distribution is similar to that found in the first two surveys, except for a slight shift away from houses and mobile homes to apartments. Also, there continues to be a large difference between the Annual and Hourly

employees housing choice distribution. Nearly 60% of the Annual movers own or rent homes compared to 33% of the Hourly employees. Apartments are rented by 22% of the Annual employees compared to 14% of the Hourly employees. Only 2% of the Annual employees occupy sleeping rooms compared to 8% of the Hourly employees. Finally, mobile homes are rented or owned by about 22% of the Annual employees while 46% of the Hourly employees occupy mobile homes. Since a number of employees have moved without their families and room together, some double counting of accommodations, particularly mobile homes, is in the data. However, there is no way to adjust the data for this with the present information.

Movers who brought their family totaled 460, and they were accompanied by 341 school-age children. This average of 0.7 school-age child per family is slightly higher than the second survey but is still low compared to previous surveys at other projects.

TABLE 1  
SUMMARY CHARACTERISTICS-CONSTRUCTION WORKERS WHO MOVED INTO AREA OF  
WATTS BAR NUCLEAR PLANT

MAY 1976

ANNUAL EMPLOYEES

TYPE OF ACCOMMODATIONS	WITH FAMILIES					WITHOUT FAMILIES	ANNUAL TOTAL
	TOTAL	WITH CHILDREN			NUMBER OF CHILDREN IN SCHOOL		
		IN SCHOOL	GRADE	HIGH SCHOOL COLLEGE			
HOUSE OWNED	93	65	47	11	7	3	96
HOUSE RENTED	19	8	4	2	0	10	29
APARTMENT OWNED	0	0	0	0	0	0	0
APARTMENT RENTED	25	9	0	1	0	22	47
TRAILER OWNED	22	6	6	1	1	8	30
TRAILER RENTED	2	1	1	0	0	5	7
SLEEPING ROOM	0	0	0	0	0	4	4
TOTAL	161	89	58	15	8	52	213

HOURLY EMPLOYEES

TYPE OF ACCOMMODATIONS	WITH FAMILIES					WITHOUT FAMILIES	HOURLY TOTAL
	TOTAL	WITH CHILDREN			NUMBER OF CHILDREN IN SCHOOL		
		IN SCHOOL	GRADE	HIGH SCHOOL COLLEGE			
HOUSE OWNED	82	70	65	21	4	3	85
HOUSE RENTED	57	42	45	17	2	9	66
APARTMENT OWNED	0	0	0	0	0	0	0
APARTMENT RENTED	40	29	19	3	0	22	62
TRAILER OWNED	78	52	42	9	1	20	98
TRAILER RENTED	42	34	37	10	1	68	110
SLEEPING ROOM	0	0	0	0	0	34	34
TOTAL	299	227	208	60	8	156	455

ANNUAL AND HOURLY EMPLOYEES

TYPE OF ACCOMMODATIONS	WITH FAMILIES					WITHOUT FAMILIES	ANNUAL AND HOURLY TOTAL
	TOTAL	WITH CHILDREN			NUMBER OF CHILDREN IN SCHOOL		
		IN SCHOOL	GRADE	HIGH SCHOOL COLLEGE			
HOUSE OWNED	175	135	112	32	11	6	181
HOUSE RENTED	76	50	49	19	2	19	95
APARTMENT OWNED	0	0	0	0	0	0	0
APARTMENT RENTED	65	38	19	4	0	44	109
TRAILER OWNED	100	58	48	10	2	28	128
TRAILER RENTED	44	35	38	10	1	73	117
SLEEPING ROOM	0	0	0	0	0	38	38
TOTAL	460	316	266	75	16	208	668

TOTAL NUMBER OF CHILDREN LIVING WITH PARENTS 595

TABLE 2

TOWN OF CURRENT RESIDENCE  
WATTS BAR NUCLEAR PLANT  
MAY 1976

TOWN	MOVED TO TOWN	ALREADY LIVING IN TOWN	TOTAL	1970 POPULATION
ATHENS, TN	77	85	162	11,790
CHATTANOOGA, TN	11	79	90	119,082
CLEVELAND, TN	19	92	111	20,651
CROSSVILLE, TN	9	70	79	5,381
DAYTON, TN	40	78	118	4,361
DECATUR, TN	75	58	133	698
ENGLEWOOD, TN	6	15	21	1,878
EVENSVILLE, TN	13	20	33	250
HARRIMAN, TN	26	80	106	8,734
KINGSTON, TN	53	84	137	4,142
KNOXVILLE, TN	18	117	135	174,587
LENOIR CITY, TN	7	55	62	5,324
NIOTA, TN	6	13	19	629
ROCKWOOD, TN	20	83	103	5,259
SPRING CITY, TN	225	117	342	1,756
SWEETWATER, TN	30	42	72	4,340
TEN MILE, TN	56	27	83	200
WOLF CREEK, TN	7	0	7	200
SUBTOTAL	698	1115	1813	
BENTON, TN	0	13	13	749
CALHOUN, TN	1	12	13	624
CLINTON, TN	1	30	31	4,794
CONCORD, TN	3	13	16	400
DUNLAP, TN	0	8	8	1,672
ERIE, TN	1	8	9	25
ETOWAH, TN	3	22	25	3,736
GEORGETOWN, TN	3	5	8	100
GRANDVIEW, TN	5	15	20	150
GRAYSVILLE, TN	2	18	20	951
GREENBACK, TN	2	5	7	318
HIXSON, TN	0	20	20	6,188
LAKE CITY, TN	0	12	12	1,923
LOUDON, TN	3	28	31	3,728
MADISONVILLE, TN	2	40	42	2,614
MARYVILLE, TN	1	20	21	13,808
OAKDALE, TN	3	10	13	376
OAK RIDGE, TN	5	13	18	28,319
OLIVER SPRINGS, TN	2	22	24	3,405
OLTEWAH, TN	0	7	7	900
PETROS, TN	0	6	6	850
PIKEVILLE, TN	0	15	15	1,454
POWELL, TN	1	14	15	2,000
RICEVILLE, TN	2	12	14	500
SALE CREEK, TN	1	9	10	900
SODDY-DAISY, TN	2	42	44	7,569
SUNBRIGHT, TN	0	6	6	500
TELLICO PLAINS, TN	3	40	43	773
VONORE, TN	1	7	8	524
WARTBURG, TN	3	12	15	541
SUBTOTAL	50	484	534	
OTHER	17	126	143	
TOTAL	765	1725	2490	

NA - INFORMATION NOT AVAILABLE

TABLE 3  
COMPARISON OF EMPLOYEE IMPACT SURVEYS  
MAJOR TVA CONSTRUCTION PROJECTS SINCE 1968

PROJECT NAME DATE OF SURVEY	PARADISE JAN 1968	CUMBERLAND SEPT 1968	CUMBERLAND SEPT 1969	CUMBERLAND MAY 1971	CUMBERLAND APRIL 1973
TOTAL EMPLOYEES	2000	544	1450	2900	725
EMPLOYEES SURVEYED	2000	544	1100	1500	625
EXPECTED PEAK	2000	2900	2900	2900	2900
TOTAL MOVERS NUMBER	643	158	435	1035	340
% TOTAL EMPLOYMENT	32	29	30	36	47
PRIMARY TOWNS IMPACTED AND NUMBER OF EMPLOYEES MOVING THERE	DRAKESBORO CENTRAL CITY GREENVILLE MADISONVILLE	ERIN-65 CLARKSVILLE-22 CUMBERLAND CTY-31 TENNESSEE RDG-16 WAVERLY-11	ERIN-140 CLARKSVILLE-69 CUMBERLAND CTY-97 TENNESSEE RDG-31 WAVERLY-23	ERIN-294 CLARKSVILLE-212 CUMBERLAND CTY-230 TENNESSEE RDG-74 WAVERLY-51 DOVER-41	ERIN-99 CLARKSVILLE-69 CUMBERLAND CTY-74 TENNESSEE RDG-28 WAVERLY-13 DOVER-12
HOUSING TYPE SELECTED					
HOUSE-BOUGHT	34 (5%)	25 (16%)	65 (15%)	155 (15%)	75 (22%)
RENTED	181 (28%)	50 (32%)	144 (33%)	300 (29%)	75 (22%)
TOTAL	215 (33%)	75 (48%)	209 (48%)	455 (44%)	150 (44%)
M. HOME BOUGHT	60 (10%)	23 (14%)	100 (23%)	228 (22%)	78 (23%)
RENTED	55 (9%)	11 (7%)	30 (7%)	155 (15%)	45 (13%)
TOTAL	121 (19%)	34 (21%)	130 (30%)	383 (37%)	123 (36%)
APARTMENT	113 (18%)	10 (6%)	26 (6%)	73 (7%)	36 (11%)
SLEEPING ROOM	194 (30%)	39 (25%)	70 (16%)	124 (12%)	31 (9%)
GRAND TOTAL	643 (100%)	158 (100%)	435 (100%)	1035 (100%)	340 (100%)
MOVERS WITH FAMILIES	317 (49%)	90 (57%)	296 (68%)	683 (66%)	224 (66%)
WITHOUT FAMILIES	326 (51%)	68 (43%)	139 (32%)	352 (34%)	116 (34%)
SCHOOL-AGE CHILDREN NUMBER PER FAMILY	410 1.3	94 1.0	356 1.2	668 1.0	145 0.7

TABLE 3 (Continued)

PROJECT NAME DATE OF SURVEY	BROWNS FERRY JCT 1969	BROWNS FERRY APRIL 1971	BROWNS FERRY JULY 1973	BELLEFONTE APRIL 1975	BELLEFONTE MAY 1976
TOTAL EMPLOYEES	2500	3200	2100	900	2200
EMPLOYEES SURVEYED	1700	2500	1800	650	1350
EXPECTED PEAK	3200	3200	3200	3300	3300
TOTAL MOVERS NUMBER	425	795	410	279	736
% TOTAL EMPLOYMENT	17	25	20	31	33
PRIMARY TOWNS IMPACTED AND NUMBER OF EMPLOYEES MOVING THERE	ATHENS-225 DECATUR-46 TANNER-31 HUNTSVILLE-16 ROGERSVILLE-12 FLORENCE-10 MOULTON-10	ATHENS-430 DECATUR-130 TANNER-45 HUNTSVILLE-34 ROGERSVILLE-19 FLORENCE-18 KILLEN-10	ATHENS-154 DECATUR-67 TANNER-20 HUNTSVILLE-24 ROGERSVILLE-14 FLORENCE-19 KILLEN-14 TUSCUMBIA-13	SCOTTSBORO-167 HOLLYWOOD-34 HUNTSVILLE-15 STEVENSON-10	SCOTTSBORO-433 HOLLYWOOD-89 HUNTSVILLE-37 DUTTON-23 SECTION-18 GUNTERSVILLE-13 BRIDGEPORT-11 STEVENSON-10
HOUSING TYPE SELECTED					
HOUSE-BOUGHT	81 (19%)	100 (13%)	172 (42%)	30 (11%)	158 (22%)
RENTED	157 (37%)	146 (18%)	93 (23%)	51 (18%)	112 (15%)
TOTAL	238 (56%)	246 (31%)	265 (65%)	81 (29%)	270 (37%)
M. HOME BOUGHT	68 (16%)	155 (19%)	83 (20%)	71 (25%)	177 (24%)
RENTED	43 (10%)	157 (20%)	22 (5%)	66 (24%)	155 (21%)
TOTAL	111 (26%)	312 (39%)	105 (25%)	137 (49%)	332 (45%)
APARTMENT	51 (12%)	116 (15%)	25 (6%)	40 (14%)	99 (13%)
SLEEPING ROOM	25 (6%)	121 (15%)	15 (4%)	21 (8%)	35 (5%)
GRAND TOTAL	425 (100%)	795 (100%)	410 (100%)	279 (100%)	736 (100%)
MOVERS WITH FAMILIES	340 (80%)	506 (64%)	347 (85%)	144 (52%)	517 (70%)
WITHOUT FAMILIES	85 (20%)	289 (36%)	63 (15%)	135 (48%)	219 (30%)
SCHOOL-AGE CHILDREN NUMBER PER FAMILY	306 0.9	396 0.8	208 0.6	108 0.8	348 0.7

TABLE 3 (Continued)

PROJECT NAME DATE OF SURVEY	SEQUOYAH JCT 1970	SEQUOYAH JULY 1972	SEQUOYAH AUG 1974
TOTAL EMPLOYEES	1100	2200	1600
EMPLOYEES SURVEYED	847	1477	1300
EXPECTED PEAK	2200	2200	2200
TOTAL MOVERS NUMBER	187	513	474
% TOTAL EMPLOYMENT	17	23	30
PRIMARY TOWNS IMPACTED AND NUMBER OF EMPLOYEES MOVING THERE	CHATTANOOGA-29 HIXSON-45 SODDY-DAISY-83	CHATTANOOGA-73 HIXSON-115 RED BANK-15 SODDY-DAISY-215	CHATTANOOGA-63 DAYTON-12 HIXSON-107 RED BANK-21 SODDY-DAISY-192
HOUSING TYPE SELECTED			
HOUSE-BOUGHT	56(50%)	95(19%)	128(27%)
RENTED	28(15%)	76(14%)	48(10%)
TOTAL	84 (45%)	171 (33%)	176 (37%)
M. HOME BOUGHT	46(25%)	130(25%)	130(28%)
RENTED	25(13%)	102(20%)	59(12%)
TOTAL	71 (38%)	232 (45%)	189 (40%)
APARTMENT	30 (16%)	77 (15%)	84 (18%)
SLEEPING ROOM	2 (1%)	33 (7%)	25 (5%)
GRAND TOTAL	187(100%)	513(100%)	474(100%)
MOVERS WITH FAMILIES	138(73%)	376(73%)	349(74%)
WITHOUT FAMILIES	49(27%)	137(27%)	125(26%)
SCHOOL-AGE CHILDREN NUMBER PER FAMILY	124 0.9	276 0.7	216 0.6

TABLE 3 (Continued)

PROJECT NAME DATE OF SURVEY	WATTS BAR MARCH 1973	WATTS BAR JULY 1974	WATTS BAR MAY 1976
TOTAL EMPLOYEES	475	1700	2800
EMPLOYEES SURVEYED	400	1500	2500
EXPECTED PEAK	2800	2800	2800
TOTAL MOVERS NUMBER	95	420	860
% TOTAL EMPLOYMENT	20	25	31
PRIMARY TOWNS IMPACTED AND NUMBER OF EMPLOYEES MOVING THERE	SPRING CITY-35 DECATUR-12	SPRING CITY-147 TEN MILE-44 KINGSTON-35 DECATUR-29 ATHENS-27 HARRIMAN-18 DAYTON-16	SPRING CITY-253 ATHENS-87 DECATUR-84 TEN MILE-63 KINGSTON-60 DAYTON-45 SWEETWATER-34 HARRIMAN-29
HOUSING TYPE SELECTED			
HOUSE-BOUGHT	25 (26%)	122 (29%)	233 (27%)
RENTED	14 (14%)	61 (15%)	122 (14%)
TOTAL	39 (40%)	183 (44%)	355 (41%)
M. HOME BOUGHT	21 (22%)	109 (26%)	165 (19%)
RENTED	22 (23%)	67 (16%)	151 (18%)
TOTAL	43 (45%)	176 (42%)	316 (37%)
APARTMENT	5 (6%)	40 (9%)	140 (16%)
SLEEPING ROOM	8 (9%)	21 (5%)	49 (6%)
GRAND TOTAL	95 (100%)	420 (100%)	860 (100%)
MOVERS WITH FAMILIES	66 (70%)	311 (74%)	592 (69%)
WITHOUT FAMILIES	29 (30%)	109 (26%)	268 (31%)
SCHOOL-AGE CHILDREN NUMBER PER FAMILY	27 0.4	191 0.6	439 0.7

