

Salary Information for Health Physicists and Nuclear Engineers, June 2001

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INTRODUCTION

Salary information was collected for June 2001 for personnel working as nuclear engineers and health physicists. The salary information includes personnel at the B.S., M.S., and Ph.D. levels with zero, one, three, four to seven, and eight to ten years of professional work experience.

Information is provided for utilities and non-utilities. Non-utilities include private sector organizations and U.S. Department of Energy contractor-operated facilities. Government agencies, the military, academic organizations, and medical facilities are excluded.

The number of salary requests and responses received are summarized in Table 1. Percentage increases in starting salaries by year between 1996 and 2001 are provided in Table 2. Salary data for 2001 by degree and years of experience are provided in Table 3. This includes average, median, 25th percentile, and 75th percentile salaries. Salary data for 2001 for utilities and non-utilities is provided in the appendix.

Table 1. Salary Information Requests and Responses, June 2001

	<u># Requests</u>	<u># Responses</u>	<u>% Responded</u>
Utilities:	41	17	41%
Non-Utilities:	136	52	38%
	<u>177</u>	<u>69</u>	<u>39%</u>

Utility responses include 4 refusals.

SUMMARY HIGHLIGHTS -- JUNE 2001 SALARY INFORMATION

Trends in Starting Salaries (Table 2)

For the third year, reported increases in starting salaries for health physicists and nuclear engineers are substantially higher than those experienced during the mid 1990s. This trend indicates a continuing "tight" labor market where demand for new graduates is increasing relative to the supply of new graduates.

Health physicists' starting salaries increased 5.9% for B.S. level personnel, 6.0% for M.S. level personnel, and 7.7% for Ph.D. level personnel between 2000 and 2001.

- These are all higher than the increases than reported between 1999 and 2000, and much higher than the annual increases experienced between 1996 and 1998.
- For the Ph.D. level, the 2000 to 2001 increase is almost twice as large as the annual increase between 1999 and 2000.

Nuclear engineers' starting salaries increased 6.4% for B.S. level personnel, 5.9% for M.S. level personnel, and 5.5% for Ph.D. level personnel between 2000 and 2001.

- These are higher than, or equal to, the increases reported between 1999 and 2000, and much higher than the annual increases experienced between 1996 and 1998.
- At the B.S. level, this is the third consecutive year with an increase of 6.0% or greater. Also, the 2000 to 2001 percentage increase was higher than the percentage increase for salary offers for chemical and mechanical engineers as reported by the National Association of Colleges and Employers ("Salary Survey," Fall 2001).
- At the M.S. level, this is the third consecutive year that the percent change has increased.

June 2001 Salaries (Table 3)

Health physicists' starting (zero experience) annual salaries

B.S. median (50th percentile) starting salary is \$42,000 and 75th percentile is \$45,000.

M.S. median (50th percentile) starting salary is \$46,500 and 75th percentile is \$50,500.

Ph.D. median (50th percentile) starting salary is \$62,000 and 75th percentile is \$67,900.

Nuclear engineers' starting (zero experience) annual salaries

B.S. median (50th percentile) starting salary is \$47,100 and 75th percentile is \$49,500.

M.S. median (50th percentile) starting salary is \$49,900 and 75th percentile is \$53,900.

Ph.D. median (50th percentile) starting salary is \$63,300 and 75th percentile is \$70,000.

Health physicists with 8-10 years experience, annual salaries

B.S. median (50th percentile) 8-10 years experience salary is \$70,000 and 75th percentile is \$77,100.

M.S. median (50th percentile) 8-10 years experience salary is \$72,400 and 75th percentile is \$80,600.

Ph.D. median (50th percentile) 8-10 years experience salary is \$87,100 and 75th percentile is \$96,000.

Nuclear engineers with 8-10 years experience, annual salaries

B.S. median (50th percentile) 8-10 years experience salary is \$71,900 and 75th percentile is \$76,800.

M.S. median (50th percentile) 8-10 years experience salary is \$79,100 and 75th percentile is \$85,400.

Ph.D. median (50th percentile) 8-10 years experience salary is \$89,000 and 75th percentile is \$96,500.

**Table 2. Starting Salary Annual Percentage Changes, 1996 - 2001
for Personnel with Zero Years of Experience**

The annual percentage changes are for organizations providing salary data for both years in each column.

ALL ORGANIZATIONS (utilities plus non-utilities)

	B.S. Level Personnel, with no experience				
	<u>1996 to 1997</u>	<u>1997 to 1998</u>	<u>1998 to 1999</u>	<u>1999 to 2000</u>	<u>2000 to 2001</u>
Health Physicists					
Total Number of Organizations:	23	20	20	20	18
Average Percent Change in Salary:	2.4%	2.0%	6.1%	5.4%	5.9%
Nuclear Engineers					
Total Number of Organizations:	27	17	17	16	19
Average Percent Change in Salary:	3.1%	3.6%	6.5%	6.0%	6.4%
	M.S. Level Personnel, with no experience				
	<u>1996 to 1997</u>	<u>1997 to 1998</u>	<u>1998 to 1999</u>	<u>1999 to 2000</u>	<u>2000 to 2001</u>
Health Physicists					
Total Number of Organizations:	21	18	16	15	13
Average Percent Change in Salary:	2.8%	1.9%	6.8%	5.1%	6.0%
Nuclear Engineers					
Total Number of Organizations:	23	18	14	14	14
Average Percent Change in Salary:	3.1%	4.6%	5.2%	5.5%	5.9%
	Ph.D. Level Personnel, with no experience				
	<u>1996 to 1997</u>	<u>1997 to 1998</u>	<u>1998 to 1999</u>	<u>1999 to 2000</u>	<u>2000 to 2001</u>
Health Physicists					
Total Number of Organizations:	19	13	14	12	10
Average Percent Change in Salary:	1.4%	3.2%	5.8%	4.0%	7.7%
Nuclear Engineers					
Total Number of Organizations:	19	14	12	10	10
Average Percent Change in Salary:	2.9%	3.4%	5.8%	5.5%	5.5%

**Table 3. All Respondents (Utilities and Non-Utilities Combined)
June 2001**

total number of responding organizations = 69

HEALTH PHYSICISTS

Years of Experience:	Annual Salary (rounded to the nearest hundred)														
	B.S. Degree Level Personnel					M.S. Degree Level Personnel					Ph.D. Degree Level Personnel				
	0 Years	1 Year	3 Years	4-7 Yrs	8-10 Yrs	0 Years	1 Year	3 Years	4-7 Yrs	8-10 Yrs	0 Years	1 Year	3 Years	4-7 Yrs	8-10 Yrs
number responses:	25	21	27	33	41	23	15	27	28	29	15	9	10	16	16
Average (mean):	\$41,600	\$44,700	\$49,400	\$58,000	\$70,700	\$48,500	\$50,200	\$57,100	\$67,200	\$76,900	\$63,000	\$63,100	\$68,100	\$77,800	\$89,300
Median (50 percentile):	\$42,000	\$44,200	\$49,500	\$58,700	\$70,000	\$46,500	\$48,400	\$56,100	\$67,200	\$72,400	\$62,000	\$53,900	\$64,600	\$75,300	\$87,100
(25 percentile):	\$38,500	\$40,400	\$45,700	\$53,500	\$65,000	\$45,000	\$46,200	\$52,300	\$57,500	\$69,000	\$51,400	\$53,500	\$58,500	\$72,600	\$80,500
(75 percentile):	\$45,000	\$47,800	\$55,200	\$65,000	\$77,100	\$50,500	\$52,500	\$58,300	\$76,400	\$80,600	\$67,900	\$70,700	\$75,800	\$85,400	\$96,000

NUCLEAR ENGINEERS

Years of Experience:	Annual Salary (rounded to the nearest hundred)														
	B.S. Degree Level Personnel					M.S. Degree Level Personnel					Ph.D. Degree Level Personnel				
	0 Years	1 Year	3 Years	4-7 Yrs	8-10 Yrs	0 Years	1 Year	3 Years	4-7 Yrs	8-10 Yrs	0 Years	1 Year	3 Years	4-7 Yrs	8-10 Yrs
number responses:	23	24	27	29	32	18	18	20	26	30	11	13	11	16	20
Average (mean):	\$47,500	\$51,200	\$55,100	\$63,100	\$72,400	\$51,200	\$55,800	\$58,900	\$67,400	\$78,300	\$62,900	\$66,300	\$68,500	\$78,900	\$85,800
Median (50 percentile):	\$47,100	\$50,400	\$54,500	\$61,600	\$71,900	\$49,900	\$53,600	\$57,400	\$66,000	\$79,100	\$63,300	\$69,900	\$67,200	\$80,600	\$89,000
(25 percentile):	\$43,400	\$47,800	\$52,400	\$58,600	\$65,100	\$46,800	\$48,700	\$53,900	\$61,800	\$69,500	\$52,100	\$56,500	\$60,800	\$72,400	\$75,000
(75 percentile):	\$49,500	\$53,000	\$58,100	\$66,400	\$76,800	\$53,900	\$57,100	\$63,200	\$71,600	\$85,400	\$70,000	\$71,800	\$75,000	\$85,500	\$96,500

SURVEY RESPONDENTS 2001
(Organizations Authorizing the Listing of Company Name)

UTILITIES

**Ameren UE-Callaway Nuclear Plant
Calvert Cliffs Nuclear Power Plant, Inc.
Dominion Resources, Inc.
Energy Northwest
Nebraska Public Power District
Omaha Public Power District
PPL Corporation
Rochester Gas & Electric Corporation
Southern California Edison
STP Nuclear Operating Co.
Tennessee Valley Authority
Vermont Yankee Nuclear Power Corp.**

NON-UTILITIES

**ABSG Consulting, Inc.
Argonne National Laboratory
Bechtel Bettis, Inc. - Bettis Laboratory
Benchmark Environmental Corporation
Berkeley Nucleonics Corp.
Brookhaven National Laboratory
BWX Technologies, Inc.
BWXT-Y12, L.L.C.
Computer Simulation & Analysis, Inc.
Fluor Hanford Inc.
Framatome Technologies
H&R Technical Associates, Inc.
Honeywell
Idaho National Engineering. & Envir. Laboratory
Landauer
Los Alamos Tech. Associates
NAC International, Inc.
Nuclear Fuel Services, Inc.
Oak Ridge Associated Universities
Oak Ridge National Laboratory
SAIC (Las Vegas)
SAIC (Oak Ridge)
Sandia National Laboratories
SC&A, Inc.
Shonka Research Associates, Inc.
Stanford Linear Accelerator Center
Tenera Rocky Flats, L.L.C.
Tetra Tech NUS, Inc.
Thomas Jefferson National Accelerator Facility
United States Enrichment Corporation (USEC)
West Valley Nuclear System**

APPENDIX TABLE

Salary Information for Utilities and Non-Utilities

**Appendix Table. Salary Information, June 2001
by Utilities and Non-Utilities**

Utilities Salary Information

total number of responding utilities = 17

HEALTH PHYSICISTS

Annual Salary (rounded to the nearest hundred)

	B.S. Degree Level Personnel					M.S. Degree Level Personnel					Ph.D. Degree Level Personnel				
	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>
Years of Experience: number responses:	3	4	4	5	10	2	1	2	2	4	1	0	0	0	1
Average (mean):	\$42,400	\$49,700	\$58,200	\$62,800	\$72,600	\$50,900	\$51,500	\$71,600	\$70,000	\$73,600	\$89,500				\$88,200
Median (50 percentile):	\$43,200	\$46,300	\$57,800	\$61,100	\$73,100	\$50,900	\$51,500	\$71,600	\$70,000	\$71,900	\$89,500				\$88,200
(25 percentile):	\$41,100	\$44,600	\$54,400	\$58,700	\$68,300	\$49,800	\$51,500	\$64,200	\$65,700	\$70,400	\$89,500				\$88,200
(75 percentile):	\$44,100	\$51,400	\$61,700	\$66,000	\$77,100	\$52,100	\$51,500	\$78,900	\$74,300	\$75,000	\$89,500				\$88,200

NUCLEAR ENGINEERS

Annual Salary (rounded to the nearest hundred)

	B.S. Degree Level Personnel					M.S. Degree Level Personnel					Ph.D. Degree Level Personnel				
	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>
Years of Experience: number responses:	8	8	7	10	9	3	3	4	4	6	0	0	0	2	2
Average (mean):	\$50,700	\$55,900	\$58,300	\$67,000	\$76,200	\$55,100	\$64,000	\$66,500	\$69,200	\$81,000				\$81,800	\$61,000
Median (50 percentile):	\$48,400	\$52,900	\$56,800	\$67,100	\$76,000	\$54,000	\$57,200	\$64,100	\$69,700	\$81,000				\$81,800	\$61,000
(25 percentile):	47800	51400	53300	62600	71700	47000	52600	61200	66700	76500				78500	58500
(75 percentile):	49500	58000	59700	70000	81000	62700	72100	69300	72200	87900				85000	63500

Non-Utilities Salary Information

total number of responding non-utilities = 52

HEALTH PHYSICISTS

Annual Salary (rounded to the nearest hundred)

	B.S. Degree Level Personnel					M.S. Degree Level Personnel					Ph.D. Degree Level Personnel				
	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>
Years of Experience: number responses:	22	17	23	28	31	21	14	25	26	25	14	9	10	16	15
Average (mean):	\$41,500	\$43,500	\$47,900	\$57,100	\$70,000	\$48,300	\$50,100	\$56,000	\$67,000	\$77,400	\$61,100	\$63,100	\$68,100	\$77,800	\$89,300
Median (50 percentile):	\$42,000	\$44,000	\$48,700	\$58,500	\$70,000	\$46,200	\$48,300	\$55,800	\$67,200	\$72,400	\$62,000	\$53,900	\$64,600	\$75,300	\$86,000
(25 percentile):	\$37,600	\$38,400	\$44,000	\$50,500	\$60,400	\$45,000	\$46,200	\$52,300	\$57,200	\$67,800	\$51,200	\$53,500	\$58,500	\$72,600	\$79,800
(75 percentile):	\$45,300	\$47,800	\$53,900	\$64,900	\$77,300	\$50,500	\$52,500	\$57,500	\$75,300	\$81,100	\$66,700	\$70,700	\$75,800	\$85,400	\$96,400

NUCLEAR ENGINEERS

Annual Salary (rounded to the nearest hundred)

	B.S. Degree Level Personnel					M.S. Degree Level Personnel					Ph.D. Degree Level Personnel				
	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>	<u>0 Years</u>	<u>1 Year</u>	<u>3 Years</u>	<u>4-7 Yrs</u>	<u>8-10 Yrs</u>
Years of Experience: number responses:	15	16	20	19	23	15	15	16	22	24	11	13	11	14	18
Average (mean):	\$45,800	\$48,800	\$54,000	\$61,000	\$71,000	\$50,400	\$54,100	\$57,000	\$67,000	\$77,700	\$62,900	\$66,300	\$68,500	\$78,400	\$88,600
Median (50 percentile):	\$46,100	\$48,700	\$54,200	\$61,000	\$69,900	\$49,400	\$53,500	\$56,700	\$63,900	\$77,200	\$63,300	\$69,900	\$67,200	\$80,600	\$91,000
(25 percentile):	\$42,000	\$46,400	\$51,100	\$55,500	\$64,800	\$47,100	\$49,400	\$53,200	\$61,700	\$68,800	\$52,100	\$56,500	\$60,800	\$71,100	\$78,500
(75 percentile):	\$48,500	\$52,100	\$57,100	\$62,300	\$75,900	\$53,000	\$56,900	\$60,700	\$71,600	\$82,600	\$70,000	\$71,800	\$75,000	\$84,800	\$97,400