

# ENVIRONMENTAL HEALTH WORKFORCE AVAILABLE TO LOCAL HEALTH DISTRICTS

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Recognition in Ohio of the importance of restricting practice of environmental health to well prepared professionals is demonstrated by the state's mandatory registration requirement. Individuals seeking to practice environmental health must meet demanding preparatory requirements, culminating in being recognized as a Registered Sanitarian (RS). Requirements for this recognition include educational preparation, experience, and performance on a standardized test. Prior to attaining the necessary experience or passing the standardized examination, individuals meeting the other registration requirements may practice environmental health for no longer than five years as a Sanitarian-in-Training (SIT) under the supervision of an RS. To maintain their status, registered sanitarians must complete continuing education requirements on an annual basis.

Mandatory registration assures confidence that in Ohio individuals practicing environmental health are well prepared. However, concern that mandatory registration may result in insufficient numbers of environmental health practitioners has lingered since the development and introduction of the original mandatory registration bill. In a response to recent legislative query, and to further explore the availability of qualified individuals to practice environmental health in Ohio, the State Board of Sanitarian Registration requested data from local health districts on their sanitarian recruitment experiences. These data were collected to learn if there was a shortage of personnel available to meet the needs for practicing environmental health in Ohio, and to learn if there were particular attributes associated with individual health districts that were related to recruitment success. Also examined was the history of

**Table 1. Last Job Openings for SITs and RS's in Responding Health Districts**

Last Job Opening	SIT Job Openings			RS Job Openings		
	Frequency	Percent	Cumulative Percent	Frequency	Percent	Cumulative Percent
Within the year	21	46	46	17	35	35
Between 1 & 2 Months	8	17	63	63	25	59
More Than 2 Months	17	37	100	20	41	100

**Table 2. Time to Fill Job Openings**

Months to Fill Position	SIT Job Openings			RS Job Openings		
	Frequency	Percent	Cumulative Percent	Frequency	Percent	Cumulative Percent
Within one Month	15	33	33	12	27	27
Between 1 & 2 Months	23	51	84	20	44	71
More Than 2 Months	7	16	100	13	29	100

**Table 3. Perception of Difficulty in Filling Job Openings**

Difficulty in Hiring	SIT Hiring			RS Hiring		
	Frequency	Percent	Cumulative Percent	Frequency	Percent	Cumulative Percent
Very Difficult	5	11	11	18	38	38
Somewhat Difficult	10	22	33	12	25	63
Not at all Difficult	30	67	100	18	38	100

RS and SIT denials by the Board to determine if there were a pattern of factors that led to individual failure to achieve recognition and thus diminish the potential workforce.

**Methods**

A survey was developed to learn about health districts’ recent experiences hiring registered sanitarians and sanitarians-in-training. This survey was distributed to health commissioners at the 2002 Fall Health Commissioners Conference on September 24-27, 2002. Initially, twenty-four (24) surveys were returned during the conference. To increase the response, the survey was then e-mailed to all 138 health commissioners in Ohio on October 7, 2002. Fifty-six (56) of the Ohio health commissioners completed and returned the survey, resulting in a response rate of about 40%.

Also of interest was the success rate of SIT and RS applicants. Examination of applicant data was important to detect any patterns that might indicate obstructions to well-prepared candidates seeking to practice environmental health in Ohio.

**Results and Discussion**

The environmental health workforce was relatively stable, with the majority of reporting health districts having no job openings for either SITs or RSs within the past year (Table 1). There was not a large demand for substantially increased numbers of sanitarians to join the local health district workforce.

When jobs became available, they were filled relatively quickly (Table 2). Within two months, 84% of SIT and 61% of RS vacancies were filled. This reflects qualified individuals being available to local health districts in response to a vacancy. It is not surprising that the more senior level position of RS took a bit longer to fill than for an SIT. Entry-level hiring is commonly done at the SIT rank, so filling a position at the RS level may imply a need for someone with specialized knowledge or considerable experience.

In addition to asking for the time that it took to fill a vacancy, health commissioners were asked for their perceptions on filling vacancies (Table 3). The perception was rare that there would be any difficulty in hiring an SIT. Approximately two-thirds of the responders reported that hiring was “not at all difficult.” In contrast, only about 38 percent of the responders indicated that it was “not at all difficult” to fill a vacancy for an RS. This response is somewhat

**Table 4. Relationship of Salary to Reported Hiring Difficulty**

Difficulty in Hiring	SIT Reported Difficult			RS Reported Difficulty		
	Mean Salary (\$/hour)	N	Std. Deviation	Mean Salary (\$/hour)	N	Std. Deviation
Very Difficult	12.15	5	1.648	14.03	15	2.063
Somewhat Difficult	12.07	8	1.951	14.61	10	2.636
Not at all Difficult	12.66	26	1.666	13.86	17	4.11

**Table 5. Relationship of Agency Size Salary to Reported Hiring Difficulty**

Difficulty in Hiring	SIT Reported Difficult			RS Reported Difficulty		
	Mean # of Professionals	N	Std. Deviation	Mean # of Professionals	N	Std. Deviation
Very Difficult	6.2	5	5.586	5.47	17	3.793
Somewhat Difficult	8	9	6.519	6.08	12	6.244
Not at all Difficult	7.16	29	6.303	7.79	17	7.943

**Table 6. Reasons for Denial of Sanitarians-in-Training Applications**

Reason for Denial	Year Denied					
	1997	1998	1999	2000	2001	2002
Failure to Meet Education Requirement- Insufficient Hours of Science/math	8	9	6	3	6	4

inconsistent with other responses (reported on Table 2) regarding time to fill a vacancy, in which about 71% of the positions were filled within two months. Individuals perceive hiring difficulties yet hire within two months. This difference may be due to health districts perceiving a greater problem senior level person (an RS) leaves as compared to needing to fill a junior (SIT) level position. However, neither type of vacancy generally remained unfilled for very long.

An additional concern was that although most health districts were not experiencing hiring difficulties, certain types of health districts were. Particularly suspect were small rural health districts with small budgets. We hypothesized that these types of health districts may be unattractive to many potential candidates, and thus have disproportional difficulty in hiring.

To explore this hypothesis, we looked for relationships between hiring difficulties and starting salary (Table 4), and between

hiring difficulties and agency size measured as the number of professional environmental health staff (Table 5). We discovered that our hypothesis was false. Starting salary was not a critical variable responsible for much of the variation in reported hiring difficulty. In fact, those reporting that hiring an RS was “somewhat difficult” offered a mean starting salary \$0.81 greater than those reporting that hiring was “not at all difficult.” Although this difference was not statistically significant, it may be reflective of those districts in less desirable regions needing to offer higher salaries to attract candidates. However, it also may simply reflect salaries generally being adequate to attract appropriate candidates. Certainly salary is an important consideration to an individual seeking a position. However, in composite, salaries appeared to be adequate to hire qualified individuals.

Similarly, no relationship was found between agency size as measured by the number of professionals and hiring difficulty (Table 5). Although those reporting that hiring of registered sanitarians “was not at all difficult” came on average from the largest agencies, this relationship also was not statistically significant. Again, although agency size may play a role in an individual’s decision if to apply for or to accept a position, it is not a controlling variable strongly affecting the ability of an agency to successfully recruit new staff.

In addition to collecting new survey data, information from the Sanitarian Registration Board files were examined to determine if registration requirements were placing unreasonable barriers on applicants (and thus limiting the pool of candidates for available positions). Over the past six years, an average of 127 SITs and 67 RSs have been registered. About four percent of the applicants have been denied registration. The SIT denials are based on not having completed the appropriate science and math based undergraduate degree (Table 6). Eight applications for RS have been denied over the past six years for a variety of reasons (Table 7). The existing system for recognizing RS does not present a surprising obstacle to hiring experienced personnel in Ohio, although of course any individual may be unaware of the requirements for registration.

**Conclusions:**

Ohio’s has a sufficient number of people available to work as Sanitarians-in-Training and as Registered Sanitarians to meet the need of local health districts. Contrary to

**Table 7. Reasons for Denial of Registered Sanitarian Applications**

Reason for Denial	Year Denied					
	1997	1998	1999	2000	2001	2002
Insufficient Education		2				
Insufficient Experience				2		1
Insufficient Examination Requirement			1			1
No State Registration Act	1					
<b>Total Denials</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>2</b>

what may be a common perception, the larger health districts do not necessarily have an easier time finding personnel to meet professional vacancies in environmental health. Similarly, salary does not seem to be a controlling factor influencing recruitment success across the state.

Of course, these conclusions apply to the general situation in Ohio rather than directly to any individual health district. These results do not suggest that a health district that offered much more salary than the norm, all other things being equal, should not expect to be a preferred place to work. Similarly, some health districts may be in such an attractive part of the state that their

location serves as an excellent recruitment tool. However, the more important finding is that if a health district is offering working conditions similar to other districts, it should not be unreasonably difficult to recruit well-qualified environmental health professional staff.

Health districts experiencing substantial difficulty in hiring should reflect on what in its particular situation varies substantially from the norm. This study refutes what may be “common knowledge” to many that only the larger districts with higher pay can easily recruit environmental health professional staff. There is a professional workforce in Ohio well prepared to meet the challenges of providing environmental health services.