WHO is a Rehabi Engineer?

by Lawrence H. Trachtman, M.S.

The question "Who is a rehabilitation engineer?" cannot be answered as simply as "Who are mechanical engineers or electrical engineers?" Perhaps because rehabilitation engineering lacks a traditional curriculum along with an accredited degree, rehabilitation engineers have come to identify themselves often to their individual liking. Even finding a group of practicing rehabilitation engineers is difficult.

In an effort to determine which professionals identify themselves as rehab engineers, a survey was sent to the 285 members of RESNA's Rehabilitation Engineering Professional Specialty Group (RE-PSG). Of the 184 respondents, only 120 (6.5 percent) "call or consider themselves rehabilitation engineers." Most have an engineering degree (88 percent), but few are registered professional engineers (24 percent). Almost 90 percent of the rehabilitation engineers work in either service delivery or research and development activities.

Others who join the RE-PSG possibly have an interest in rehabilitation engineering, or may consider themselves biomedical engineers or research engineers because they do not provide direct client services.

Interpreting Figures 1 and 2, rehabilitation engineers are possibly becoming sterotyped into primarily service delivery or research and development jobs. This notion is supported by a relatively inexperienced work force having few supervisory responsibilities. (Even though the rehabilitation engineers with advanced degrees outnumber those with bachelor's degrees 4 to 1.)

While the rehabilitation engineers report education/training and management/administration as secondary areas of work, these more advanced career opportunities (along with policy/planning) do not appear readily available. Taking this one step further, most jobs for rehabilitation

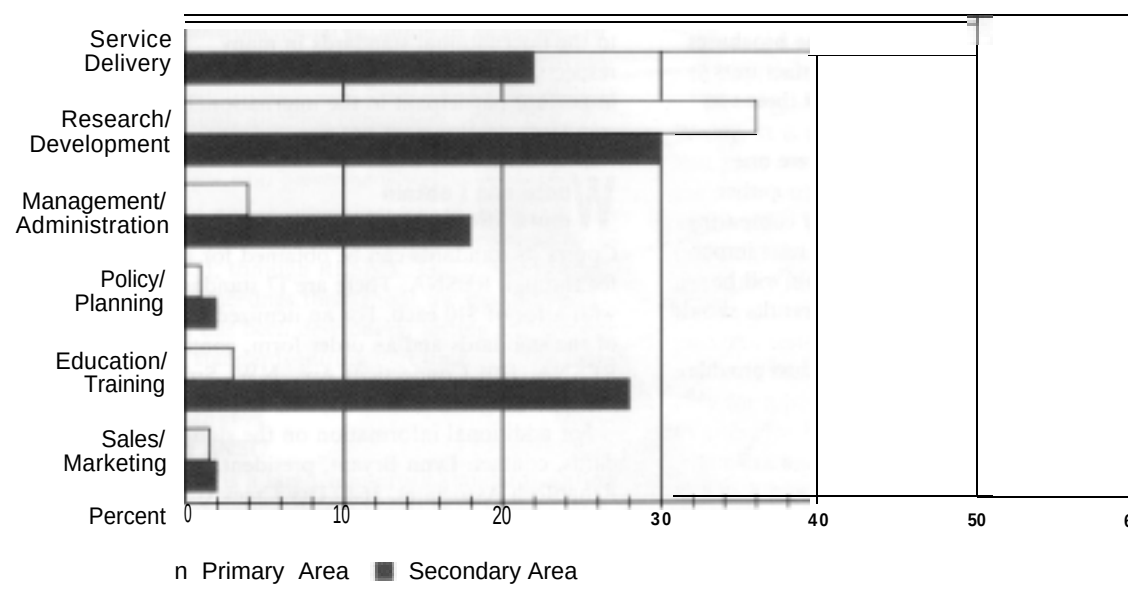

Figure 1. Rehabilitation engineers' areas of work

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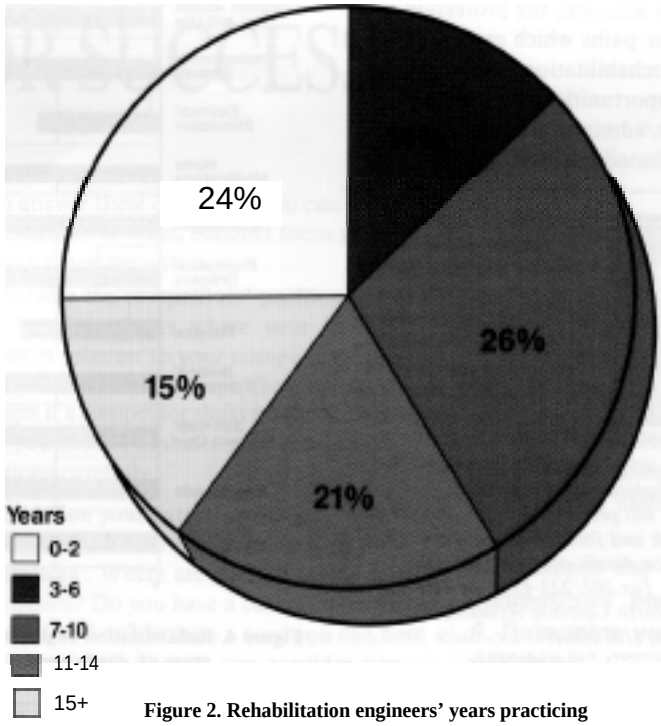

Figure 2. Rehabilitation engineers' years practicing

engineers still exist in either hospitals or universities (Figure 3). Few of the rehabilitation engineers work in residential settings, industry or with disability service agencies. Community-based rehabilitation engineering might not be occurring because few rehabilitation engineers are in private practice or consulting.

Salaries for rehabilitation engineers are concentrated between $30,000 and $50,000 (Table 1). However, rehabilitation engineers can expect to earn more with a doctoral degree, especially consulting or in research and development.

Rehabilitation engineers report a diversity of proficiency areas covering most types of assistive technologies (Figure 4). Areas least selected were those typically delivered

Degree	Responses	Average Salary
None	3	$33,000
Associates	1	$30,000
Bachelors	23	$37,600
Masters	44	$39,300
Doctorate	30	$62,500
Other	2	$56,500

Table 1. Rebabiiitation engineers' average salaries

by other professional disciplines; for example, prosthetics/orthotics and adaptive recreation.

A strong correlation exists between rehabilitation engineering service delivery and self-reported proficiencies.

Rehabilitation engineers must be learning their skills on the job since less than half received any specialized training in the past year. This should cause concern considering assistive technologies' rapid pace of advancement.

According to the study's results, rehabilitation engineering is viewed

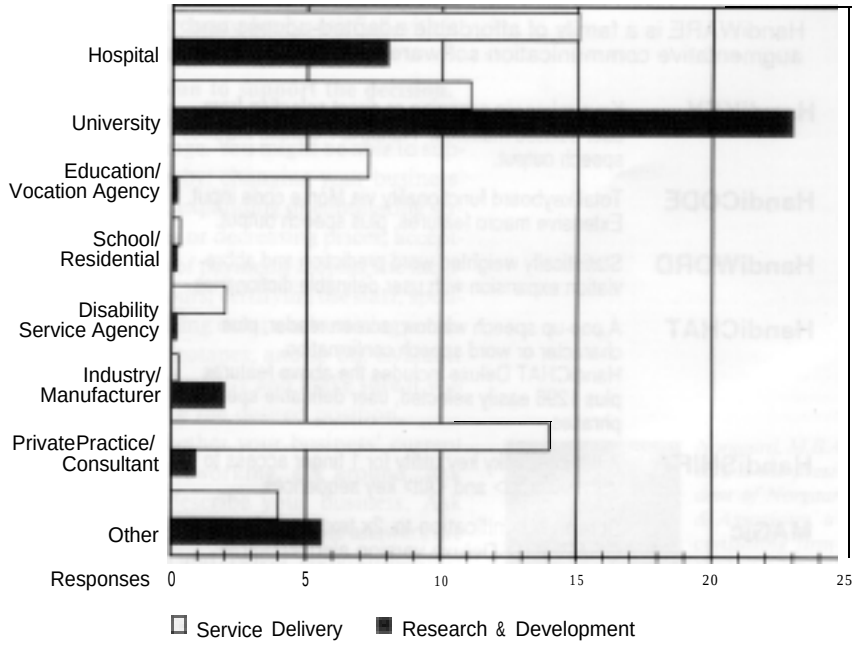

Figure 3. Rehabilitation engineers work settings

primarily as a clinical/research service profession, both by rehabilitation engineers themselves and by rehabilitation engineering employers. Few in number, rehabilitation engineers must unite to address critical issues such as training and certification. In addition, the profession must look at career paths which expand potential roles of rehabilitation engineers including opportunities in industry, management/administration and community-based practices.

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Trachttnan will present the expanded version of his research and findings at the June RESNA conference. For details contact: RESNA, 202/857-1199, Fax 202/223-4579; or Lawrence Trachtman, North Carolina Assistive Technology Center, 1110 Navaho Dr., Suite 101 Raleigh, NC 27609; 919/850-2787.

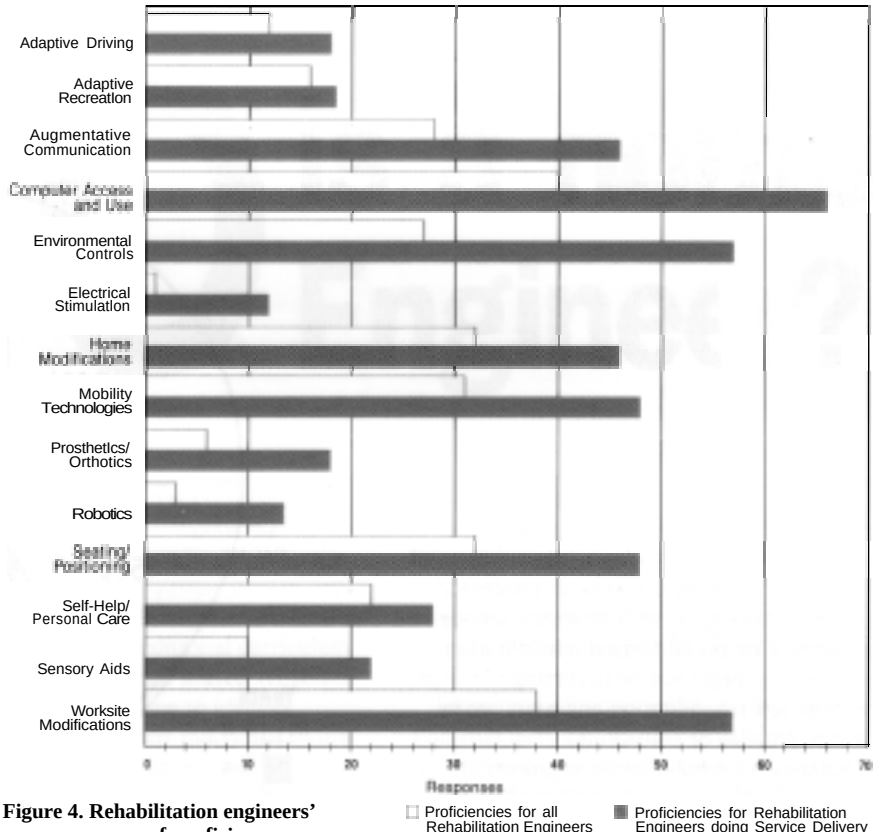

Figure 4. Rehabilitation engineers' areas of proficiency