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# ADDRESSING HUMAN RESOURCE GAPS IN THE SANITATION SECTOR

## Additional Analyses from the African Sanitation Academy Survey

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development of the United States Government.

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## INTRODUCTION

The ambitious goal of achieving universal access to safe water and sanitation as set out in the United Nations' Sustainable Development Goal (SDG) 6, has led to increased investments in water, sanitation, and hygiene (WASH) infrastructure and institutions. However, research by the International Water Association (IWA)<sup>1</sup> shows that a lack of corresponding investments in the human resource (HR) base needed for effective WASH infrastructure management and service delivery has resulted in a significant gap between the current human resources available in the sector and what will be needed to achieve the SDGs. To attract and retain newly qualified and experienced WASH professionals respectively, and to improve service delivery, it is important to invest in the HR needs of the WASH sector. This includes increased HR financing<sup>2</sup> and capacity-building of staff.

In 2017, the [USAID-funded Water for Africa through Leadership and Institutional Support \(WALIS\)](#) project conducted a survey to better understand the training needs and preferences of professionals in the sanitation sector in Africa. Almost 1,000 prospective respondents working in sanitation in Africa received the survey. The overall response rate was 30 percent, which compares favorably with the average expected from online surveys. Results from the survey revealed that to meet the current and projected demand for training, it will be important to have not just formal degree-based education, but also short, 'just-in-time' training opportunities on specific topics that can be delivered using a variety of methods. A summary of the survey results, findings from key stakeholder interviews, and recommendations for creating more targeted training opportunities in the sector were published in the [African Sanitation Academy: Feasibility Report](#)<sup>3</sup>.

## RECOMMENDATIONS BY TARGET MARKET

In 2019 WALIS conducted additional data analysis to identify the unique needs and preferences of different groups that will be important in building the HR capacity of the sanitation sector:<sup>4</sup>

- **Young professionals**<sup>4</sup> - as Africa's population and workforce continue to expand rapidly, this group is vital to the sustainability and growth of the sector. They not only ensure the maintenance of institutional knowledge as they replace older, retired professionals, they will also be critical to the development and maintenance of new technologies and innovations in the sector. Because the sanitation sector is not always seen as an aspirational or priority career by young people, building the sector's profile as aspirational is important to attracting and retaining young professionals<sup>6</sup>.
- **Women professionals** - the HR gap in the sector cannot be filled without recruiting more women to the field. While more women are entering the sector, they still remain an untapped pool of talent and account for only 20 – 30% of professionals<sup>7</sup>. At the same time, research shows

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<sup>1</sup> International Water Association (2014). *An Avoidable Crisis: WASH Human Resource Capacity Gaps in 15 Developing Economies*

<sup>2</sup> World Health Organization (2012). *UN-Water GLAAS 2012 Report: The Challenge of Extending and Sustaining Services*

<sup>3</sup> The research for this report looked at the feasibility of creating an African continent-wide sanitation training center, or African Sanitation Academy (ASA). The ASA was envisioned to be institution of higher learning, not in itself as extensive as a university, but one that draws together specialist expertise, gives its members the opportunity for in-depth learning, promotes analysis and the exchange of ideas, and encourages innovation.

<sup>4</sup> For this analysis, young professionals are defined as respondents in their 20s and 30s

<sup>5</sup> Bloomberg (2019). *Africa's Working-Age Population to Top Asia's by 2100*

<sup>6</sup> WALIS (2017)

<sup>7</sup> World Bank (2019). *Women in Water Utilities: Breaking Barriers*

they still face significant barriers in achieving management-level promotions and other decision-making positions<sup>8</sup>. To achieve water and sanitation for all, therefore, it will be important to close the gender gap in the sector.

- **The private sector/independent consultants** – case studies in Ghana<sup>9</sup>, Ethiopia<sup>10</sup>, Senegal, Malawi, Sierra Leone, and Uganda<sup>11</sup> show that the private sector plays an invaluable role in the sanitation value chain, and in the provision of non-sewered sanitation services. The private sector is typically more flexible than the public sector and, therefore, well placed to supplement public sector capacities. For this reason, building the capacity of this group will be critical to achieving universal sanitation access<sup>12</sup>.

The following sections give details of the unique needs and preferences of each group that should be considered in capacity-building efforts targeted towards them.



## YOUNG PROFESSIONALS

### FINDINGS:

#### 1. Core competencies:

When considering the most important core competencies for a sanitation leader, respondents in their 20s were less likely than older respondents to select advocacy (18.2%), governance (3%), and HR management (3%), as shown in the figure below. However, respondents in their 20s were more likely to view financial planning as a core competency (21.2%) compared to older respondents (7%).

- Although respondents in their 20s generally ranked cross-cutting non-technical skills highest on the list of core competencies, they also rated technical skills like new technologies, fecal sludge management, wastewater management, ecological sanitation, institutional WASH and hygiene relatively higher than older respondents.
- The higher ranking of technical competencies by younger respondents may be due to the fact that they have yet to develop as many technical skills as those who have been in the sector longer and they are thus more likely to rank these technical skills as important.

#### 2. Preferred training topics:

Respondents under 40 were more likely to want training in project management (40.4%) compared to respondents over 40 (24%). This may be reflective of the fact that professionals under 40 are trying to gain experience to move into management positions in their organizations.

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<sup>8</sup> Ibid.

<sup>9</sup> International Water Association (2013). *Mapping Human Resource Capacity Gaps in the Water Supply and Sanitation Sector*

<sup>10</sup> IRC/WASH (2015). *Private Sector Role is Critical to Meeting WASH Targets*

<sup>11</sup> IFMR LEAD (2018). *Service-Level Agreements for Inclusive Urban Sanitation Services: Lessons from a Global Review*

<sup>12</sup> Water Supply and Sanitation Collaborative Council (2016). *Private Sector Engagement in Sanitation and Hygiene: Exploring Roles Across The Sanitation Chain*

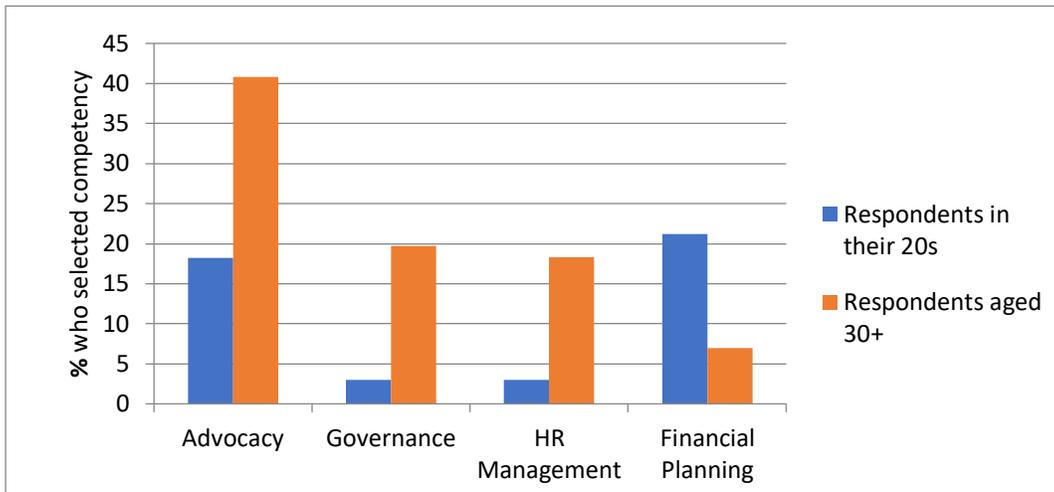


FIGURE 1: MOST IMPORTANT CORE COMPETENCIES FOR A SANITATION LEADER

**3. Preferred training methods:**

Respondents in their 20s prefer mentorship (75.8%) and on-the-job training (45.5%) over in-person short courses (18.2%) to build leadership skills. This contrasts with 45.2% of respondents aged 30 and above who selected in-person short courses as their preferred method of building leadership skills.

**4. Staying in the sanitation sector:**

Respondents in their 20s were just as likely as those in other age groups to report that they want to stay in the sanitation sector. While they are less likely to say they are staying because sanitation is important (69.7%) compared to older respondents (88.9%), they're more likely to say they are staying because of good training opportunities (36.4%) compared to older respondents (19.9%).

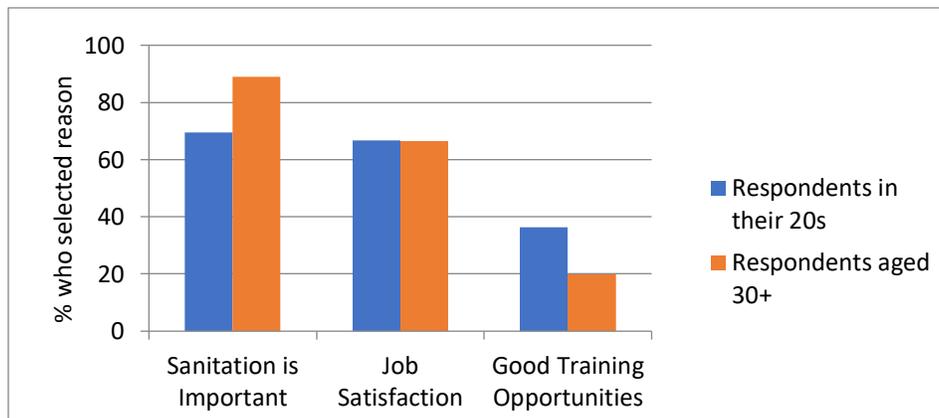


FIGURE 2: REASONS FOR STAYING IN THE SANITATION SECTOR

**5. Role of mentorship:**

Respondents in their 30s particularly value mentorship and were significantly more likely to select mentorship as a preferred training method (41.5%) compared to all other respondents (20.6%). They were also more likely to currently have a mentor, officially or unofficially, to

report having learned management and leadership skills from a mentor, and to have participated in mentorship training (see below).

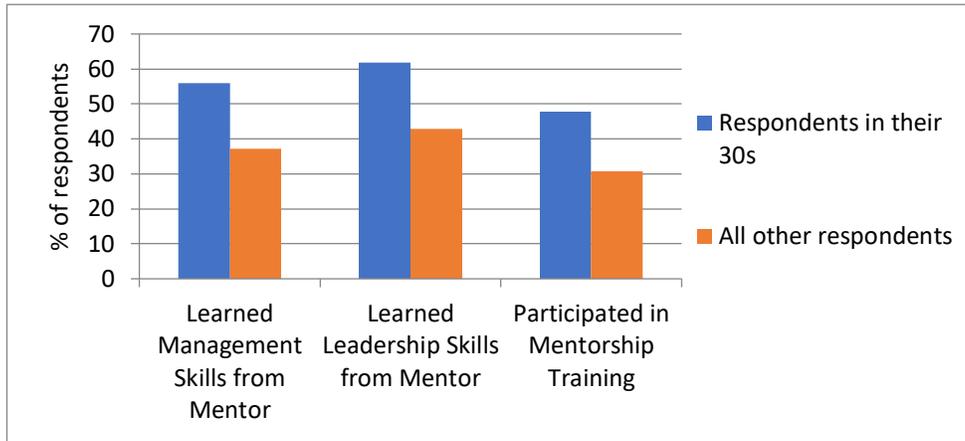


FIGURE 3: ROLE OF MENTORSHIP IN LEARNING

## RECOMMENDATIONS

1. When marketing leadership-focused short courses to younger professionals, consider combining the training with mentorship and on-the-job training.
2. Training and mentorship opportunities can be leveraged to attract young talent to sanitation. More specifically, offering young professionals the opportunity to choose from a range of technical and non-training topics, providing opportunities for project management training and experience, and pairing them with mentors may be effective tools to recruit and retain young talent.



## WOMEN

### FINDINGS

The WALIS survey data suggests that more young women are entering the sanitation field. Women accounted for 28.4% of respondents, but the proportion of female respondents increases as the age bracket decreases:

- of respondents over 50 (n=82), only 21% were women
- of respondents in the 40s (n=84), 27% were women
- of respondents in their 30s (n=76), 33% were women
- of respondents in their 20s (n=36), 39% were women

### I. Self-assessment of competencies:

Female respondents were more likely to say they do not have technical competencies (15.3%) or leadership competencies (19.4%) required for their jobs. In contrast, only 3.9% and 9.7% of male respondents said they did not have the required technical and leadership competencies respectively.

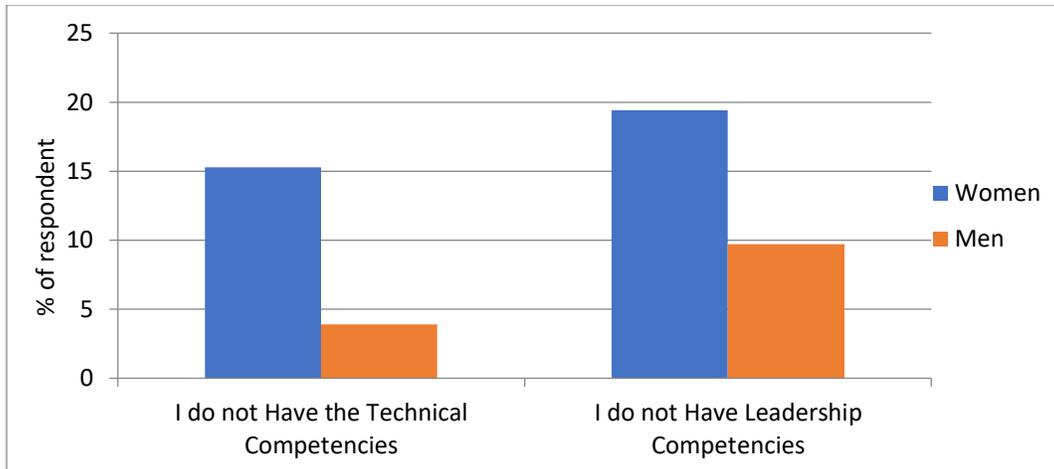


FIGURE 4: SELF-ASSESSMENT OF COMPETENCIES

- This may be due to different perceptions of one’s ability by gender, rather than actual differences in competency; while there are not enough studies in Africa to draw definitive conclusions, research on self-estimates of intelligence and competency generally show that women tend to have lower self-estimates than men regardless of actual ability<sup>13</sup>
- When looking at a combined measure of the number of competencies female respondents reported having for their current job (technical + management + leadership) on a scale from 0 to 3, the only significant predictor of the number of competencies a respondent said they had was gender; with a negative association between female respondents and number of competencies.

**2. Participation in training opportunities:**

Gender disaggregated data suggests a discrepancy between male and female respondents in terms of training opportunities available, as shown in the figure 4. Men are more likely to have participated in in-person short courses (72.5%) compared to their female counterparts (55.7%), advanced formal courses (35.7% vs. 15.7% of women), and exchange visits (61.4% vs. 52.9% of women).

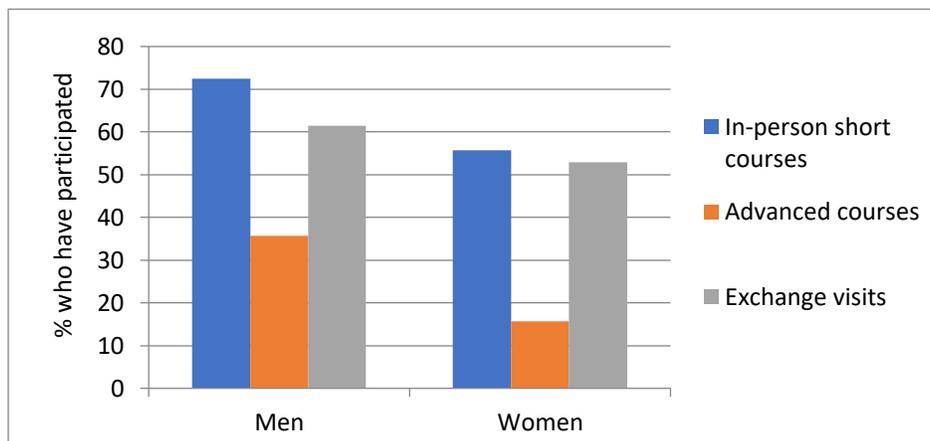


FIGURE 5: PARTICIPATION IN TRAINING OPPORTUNITIES

<sup>13</sup>Dahl (2009). Self-assessed intelligence in adults: The role of gender, cognitive intelligence and emotional intelligence; Furnham & Baguma (1999). Self-estimates of intelligence: A cross-cultural study from three continents; Furnham (2005). Gender and personality difference in self- and other rating of business intelligence.

- Male respondents are more likely to say they prefer in-person short courses (57.6%) compared to female respondents (44.3%), which may be related to the fact that more men have previously taken an in-person short course. Interestingly, female respondents were slightly more likely to say their employer provides opportunities for short courses (83.3%) compared to male respondents (78.8%). This begs the question of whether women are choosing not to participate in short courses more than men, or if they are not being chosen for these opportunities by employers.
- When asked the maximum amount their employer would cover for a degree program, male respondents reported a significantly higher average value<sup>14</sup>.
- Men have paid more for online courses than women, but the survey does not specify whether these costs are covered personally or by employer. If these courses were employee-financed, it may be indicative of who controls funds within a household. For employer-financed online courses this may be further evidence of higher investment in male versus female employees.
- Female respondents are more likely to have a mentor (61.9%) compared to male respondents (50%) and are slightly more likely to participate in a community of practice (COP) (69.8%) compared to male respondents (61.5%, not significant).
- Overall, female respondents preferred to participate in training opportunities that involve face-to-face interaction. It is also worth noting that many of these opportunities (communities of practice and mentorship) are free and must be undertaken on one's own time, which may indicate that women in the sector utilize these training opportunities more because they are not provided with the resources for those opportunities that require time off of work and/or funding.

## RECOMMENDATIONS

While more women are entering the sector, research shows they still face significant barriers to rising to management and other decision-making positions<sup>15</sup>. To help address these barriers, it will be important to empower women by offering training opportunities that help them develop the necessary skills to rise to decision-making positions. Other recommendations are listed below:

1. Where women lack skills required for their jobs, gender-targeted training can help them build the required skills and competencies. However, because women are more likely to under-estimate their own skills and competencies, trainings focused on empowerment and leadership can help build confidence and provide training on how women can advocate for themselves within their organizations and the wider sector.
2. Women professionals are an untapped market for short courses and should be more specifically targeted and/or offered scholarships/funding opportunities for them to participate in such opportunities.
3. Those offering training opportunities should consider how to make them more accessible to women in the sector. Ways to do this could include providing funding or discounts, and/or working with employers to ensure that all employees have access to training opportunities as needed.

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<sup>14</sup> With a t-test the difference between male and female respondents is significant when unequal variance is assumed. Since the data have a significant right skew the non-parametric equivalent test (Wilcoxon-Mann-Whitney) may be more appropriate; using this, the difference is still significant at  $p=0.011$ .

<sup>15</sup>World Bank (2019). *Women in Water Utilities: Breaking Barriers*



## PRIVATE SECTOR / INDEPENDENT CONSULTANTS

### FINDINGS

#### I. Necessary competencies:

Respondents working in the private sector or as consultants were less likely to say their highest qualification equipped them to carry out their jobs (65%) compared to all other respondents (79.7%). The most common reason given was that their highest qualification “didn’t provide sufficient management skills”.

- However, they were not significantly more or less likely than other respondents to say they had the necessary competencies for their job. 95% reported that they have the necessary technical competencies (compared to 92.4% of all others), 87.5% the necessary management competencies (compared to 89% of others) and 87.5% the necessary leadership competencies (87.5% of all other respondents also reported this), as shown in the figure below. This implies that while their highest formal qualification, such as a degree, may not have equipped them for the job, they were able to gain the necessary skills through other means, such as on-the-job training.

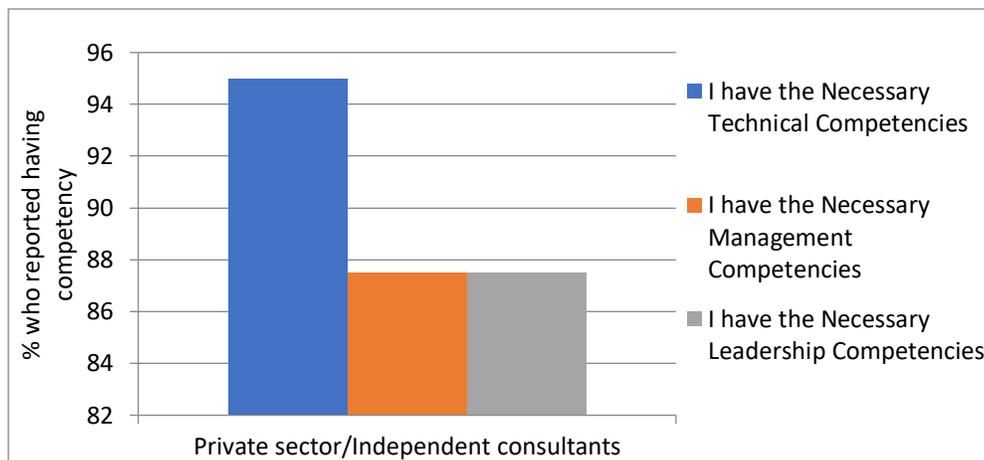


FIGURE 6: ASSESSMENT OF NECESSARY COMPETENCIES

#### 2. Role of employers:

Respondents working in the private sector or as consultants were more likely to say that time away from the office affects employers’ choice of training (53.8%) compared to all other respondents (35.3%). They are also less likely to have employers who provide opportunities for short courses (68.4%) compared to all other respondents (82.5%), and less likely to have any costs related to short courses covered.

#### 3. Preferred training methods:

Respondents working in the private sector or as consultants are more likely to prefer on-the-job training (76.9% ranked it in their top three preferred training methods) compared to all other respondents (60.7%). This may be reflective of the fact that they are not provided other types of training opportunities as frequently.

- Respondents working in the private sector/as consultants are less likely to have gone on an exchange visit in the last three years (30.6%) compared to all other respondents (54.5%) and are less likely to have opportunities for short courses or longer-term training. This indicates that individuals working in the private sector/as consultants are given less opportunities for all types of trainings.

## RECOMMENDATIONS

1. Data indicate that recent graduates or those with only a few years of professional experience would be a prime target market for training.
2. Courses designed for this group should be offered on weekends or during non-work hours, as survey results suggest that this group has less schedule flexibility.
3. For trainings aimed at this group, it may be necessary to consider more targeted marketing strategies. Alternatively, it could be useful to work with employers to find times and pricing structures that work. For independent consultants working on their own, it will be vital to effectively communicate the value of self-financing the training.