SKILLS AUDIT ANALYSIS RESULTS, 2011

Compiled by the Secretariat of the Pacific Community (SPC) Statistics for Development Division (SDD) at the request of the Pacific Statistics Steering Committee (PSSC)

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1 Background

An NSO staff skills audit was undertaken in late 2011, focusing on all countries and US territories (18) where SPC is engaged in regular training; all countries and territories participated except for PNG resulting in the participation by 17 countries. French territories were excluded, as our training activities are very limited there, given the provision of assistance coverage from Paris.

It is important to state up-front when considering the provision of skills training by various statistical providers, that this audit provides a **snapshot of the situation prevailing in these offices at the time**. Given the high degree of staff turn-over, more often than not involving trained staff leaving for employment elsewhere, this has an obvious impact on the training profile of key training providers in the region, such as SPC, SIAP, PFTAC, USP, UN Agencies and the statistical agencies of Australia and New Zealand. It also means that any staff recruited since the audit are not covered in the results of this report.

In general, the focus of this first report is to provide an **overview and a general snapshot of the major findings**.

2 Executive Summary

Office Profile

The total number of staff surveyed was 224, covering every staff working in these 17 offices, with staff numbers ranging from 44 in Samoa to 1 in Tokelau.

4 NSOs had a staff contingent of 25 staff or more (24%), with 8 of the 17 NSOs surveyed having less than 5 staff (47%).

The mean age of staff was 38 (median 37), with ages ranging from 19 to 80 (not a typo).

53 percent of NSO staff were women, with Guam (72%) and Tonga (70%) employing the highest proportion of female staff. This gender parity, however, does not quite translate across job levels, showing a substantial divergence in male and female employment across broad categories. Senior management remains the domain of men, with only 2 of 21 Pacific Island NSOs currently headed by women, whereas administrative support is 100 percent “women only” (Figure 3.16).

On average, length of service totals 12 years – with the Solomon Islands (19) and Guam (18) having the longest established workforce, with staff in Samoa, Vanuatu and Tuvalu showing an average of 7 years of service.

Contrary to popular belief, most NSO staff worked in economic divisions (34%), followed by social and demographic statistics (26%).

79 percent of staff were employed at the professional level, with just 21 percent engaged as support staff or junior officers. The Solomon Islands (50%) and Cook Islands (40%) employed the largest proportion of senior professionals. Tonga (41%), Guam (33%) and Samoa (32%) had the largest proportion of statistical support staff.

Job Duties

On average, staff performed 2 different duties. 45 percent reported having one principal duty, 21 percent reported 2 or 3 duties, 10 percent covering 4 duties, and 3 percent multi-tasking 5 or more duties. Reported duties were aggregated into 17 different job tasks.

Producing economic statistics tables was the most commonly reported job duty, involving one in three NSO staff (32%), followed by statistical support (28%) and economic analysis and report writing (25%).

It is worth noting that 3 of the 5 most commonly reported duties were economics-related, with data processing (2%) and website maintenance (1%) the least frequently reported duties.

Aggregating the 17 main job duties, 42 percent of NSO staff undertook economic statistical-related tasks, which was twice the percentage of staff working in the social and demographic area (20%).

Formal statistical Training summary

NSO staff averaged 3 participations in formal training events, ranging from formal and thematic short-term workshops or seminars, to the six-month SIAP course in official statistics (university courses are excluded here, and will be addressed in a separate section).

24 per cent of staff never attended any formal training, with one person managing 32 such training events.

Quite marked contrasts emerge between countries, with Kiribati averaging 6 such training events, closely followed by FSM, RMI, Solomon Islands, and Tuvalu with 5 each.

Male NSO staff accessed more training opportunities on average (4) compared to women (2.6).

Education

This section covers four areas pertaining to NSO staff's educational background: (i) highest level of secondary education completed; (ii) highest level of post-secondary education attended; (iii) highest level of post-secondary education completed: and (iv) highest post-secondary qualifications achieved.

i. highest level of secondary education completed
   More than half of respondents completed Form 7 or equivalent of High School (56%), 28 percent completed Form 6, 10 percent completed Form 5, and 5 per cent left school before completing Form 5.
ii. highest level of post-secondary education attended
   One in two NSO staff has attended university (49%), 18 percent attended Community College (13%) or a poly-technical institute or TAFE (5%), with one in three (32%) listing no post-secondary education attended.
iii. highest level of post-secondary education completed

41 percent completed a university education, 15 percent completed Community College (13%) or a poly-technical institute or TAFE (2%). Levels of completed post-secondary education varied quite markedly between countries.

iv. highest post-secondary qualifications achieved
One in three NSO staff completed either a degree (29.5%) or a Masters (6.7%), and one in four obtained either a diploma (14.3%) or a certificate (10.3%).

Post-secondary education by job duties

Table 4.1 provides a comprehensive account of highest post-secondary educational qualifications achieved against the seventeen principal job categories.

While 61 per cent of all statistical leaders and those undertaking managerial duties have university qualifications, having achieved either a degree (39%) or Masters (22%), a very diverse picture emerges across the remaining job categories. This may have **significant implications on future statistical training and capacity building strategies.**

While a university degree is not itself a guarantee for statistical capacity or excellence, Table 4.1 highlights some worrying features. The primary concerns being:

- about half of the NSO staff involved in demographic (54.2%) or economic collections (48.7%) have no post-secondary educational/professional qualifications
- a similar pattern emerged with regards to demographic tabulations/compilations (59.3%) and economic tabulations/compilations (41.7%), and
- far too many people involved in demographic (42.1%) or economic (43.9%) analysis and report writing not having experienced technical training from a post-secondary education , skills which a secondary school education simply cannot provide.

This picture is deeply worrying, and needs urgent attention by PSSC, given its intent to developing a long-term Pacific statistical training strategy.

Job-Specific Training - General

The objective here was to establish the prevalence of job-specific training for staff to perform the principal duties they engaged in – irrespective of whether this training was provided on the job, by a supervisor or senior colleagues, or in a more formal learning environment such as attending specific technical workshops or professional attachments provided by different statistical training providers. Since the emphasis was on **current activities**, this covers both new staff (induction type activities) or staff working in new positions. With many staff having had different job duties during their working life at the NSO, job-specific training for each job cannot be established.

Most staff (73%) indicated they did indeed receive job-specific training for the activities they are currently engaged in. On average, staff experienced between 2 and 3 of such trainings, with 17 percent stating that they had received 4 or more such opportunities.

Of this group, the vast majority (87%) participated in **formal training events** provided by different statistical training providers such as SIAP, SPC, USP, UN agencies, statistical agencies of Australia, NZ and the US, PFTAC, IMF, and the World Bank. Most staff (72%) had exposure to between 1 and 3 such opportunities.

The three **most commonly referred to trainings** covered census/survey planning (34.8%), specialized-thematic workshops (34.1%) and Data analysis and Report Writing workshops (26.8%). Around 10 percent of staff were trained in data processing, leadership/project management type activities, and introduction to basic computer skills.

The three **most common training providers** for Pacific island statistical agencies, in terms of staff numbers having attended courses, were SPC (41.5%), SIAP (29.9%) and trainings received in-house by colleagues of the respective NSO (27.4%).

Job-Specific Training – by duty of respondents

A **substantial training gap** exists between current professional work undertaken by NSO staff, and formal training received in this particular field of activity (Table 5.1). Most staff working across each of the 17 major task categories have not been exposed to formal training in the areas they currently work in.

Notable exceptions are

- the two staff who claim **website maintenance** is their principal duty, and who both have been exposed to programming and web-design training; and
- people engaged in **managerial duties**, many of who have been exposed to specialized/thematic/ technical training (51.2%), census and survey planning (36.6%), Data analysis and Report writing (26.8%) and Leadership/Project management courses (24.4%)

When it comes to the majority of NSO staff performing **core statistical business**, such as data collection, tabulations, analysis and report writing, the **training gap is substantial**. This is, in our view, one of the more worrying findings of this skills audit, requiring urgent attention, including a better dialogue between training providers and NSOs, and improved governance arrangements pertaining to the organization and management of such learning events.

Job-Specific Training Sufficiency

Apart from a not always perfect fit between technical job demands and having had access to job-specific training, a second major finding is that **only one in three people** having received job-specific training (38%) **believed this training to be sufficient to do a competent job** in their office.

- Nearly half of all staff having received job-specific in specialized fields (44.6%) stated they require further training in this area;
- the same applies to staff having been exposed to Data processing (CSPro) training, with one in three expressing the need for more training (38.1%); and
- one in four people having attended Data analysis and Report writing training (27.3%) or leadership/ project management courses (23.5%) stated they require further training in these fields

While these findings should not come as a surprise considering that most such learning events are of a short-term duration (with the exception of the 6 month SIAP course in official statistics), these findings should alert the PSSC TWG on statistical training given the substantial investment in time and resources in such training.

In terms of what **NSO staff identified as their own specific training needs**, one in four staff (24.6%) was interested in specialized thematic courses (e.g. economic and social/demographic topics and methods) , Data Analysis and Report Writing (18.3%) – ahead of basic computer skills (12.5%), census and survey planning (12.1%) and data processing (9.8%).

Of staff who never received any job-specific training, basic computer courses (29%) and specialized/ thematic courses top the list, ahead of Data Analysis and Report Writing (17%) and census and Survey planning (17%).

General Statistical Training and Training providers

Apart from job-specific training received, 61 percent of NSO staff indicated they had participated in, on average, two additional statistical training events.

The **most popular training** received was in Data analysis and Report writing, attended by 24 percent of all 224 NSO staff surveyed, followed by census and survey planning (16.5%), the SIAP six-month introductory course in official statistics (16.1%), Data processing (14.3%), National Accounts/BoP (12.1%), and the SPC-SIAP Three-week introductory course in general statistical concepts and procedures (10.3%).

One out of three NSO staff have taken courses provided by SPC (36%) and SIAP (30.4%), which together with UN technical agencies (19.2%) are the **main providers of statistical training in the region**.

Other Statistical Skills

Staff were also asked to identify other professional skills they have that they consider useful to help them in their job (Table 7.1).

- More than half claimed skills in spread sheets (78%), data analysis (64%), report writing (64%) and databases (51%). While this may look as a distinct positive, it could be argued that work in a statistical agency might call for universal coverage in spreadsheet proficiency, and a higher skill coverage working with databases.

- 46 percent indicated having data processing skills, and 24 per cent claimed GIS skills – a surprise finding from where we sit, as this is something clearly not reflected in statistical outputs in most NSOs.
- Across the 10 skills identified, **formal training by training providers** played a major role in the areas of data analysis, report writing, GIS, project management and web publishing (Table 7.1, 7.2 and 7.3).
- **NSO focused/on the job-training** by colleagues played a major role in acquiring skills with spreadsheets, data processing, database work and accounting;
- IT skills, in most cases, were **self-taught, or learned on the job**.

Where people identified they acquired "other" skills from formal training providers, SPC , SIAP and USP are listed as the main providers (Table 7.3). Having said this, some care is advised in reading too much into this, considering the large proportion of respondents who failed to list the training provider – 29 percent or more of responses were unspecified.

Despite claiming some proficiency across many skills not necessarily related to the respondents' principal duties, more than half of respondents indicated a need for further training in 8 of the 10 different skills.

Training Summary

Combining staff exposure to the various types of training they have been exposed to – job-specific training, general statistical training, and formal trainings in "other" skills shows the following:

- more than half of all NSO staff claim to have had some exposure to data analysis and report writing (55.4%);
- one in three had some formal training in census/survey planning (34.4%) and basic computer skills (33.9%), followed by data processing (30.8%); and
- one in five received formal training in project management and working with databases.

Matching formal training in these various areas with the duties staff currently undertake supports an earlier observation about ***skill gaps*** in specific sectors. Furthermore, it highlights additional NSO management challenges dealing with **skill loss** and **mismatches** between available skills (in the office) which are not applied to related jobs, due to career development (promotion) or changing duty requirements. Table 8.1 illustrates this quite succinctly.

- On the positive side, staff involved in data analysis and report writing had the highest level of complementary skill training, with between 51 and 74 percent claiming to have received formal training in this field.
- A similar picture emerges amongst those undertaking managerial duties, with nearly 50% having attended formal leadership and/or project management training, and two out of three having received training in census and survey planning.
- More problematic challenges emerge when it comes to one of the core activities of any NSO – statistical tabulations, where formal training in database management was very low (22-26%), and only between 36.1 and 51.9 per cent had formal training in data processing, and between 33.3 and 55.6 percent had formal training in basic computer skills.

- And amongst statistical support staff, only 29 percent have had some formal training in basic computer skills, including spreadsheets.

3 A General Profile of the Offices

3.1 Office size

- NSOs in the Pacific region ranged in size from 44 staff members to 1 staff member.
- The average office size was about 10 staff, while the median was slightly larger at 12 staff.

Table 3.1: National Statistical Office Staff Profiles in the Pacific Region

Number of Staff

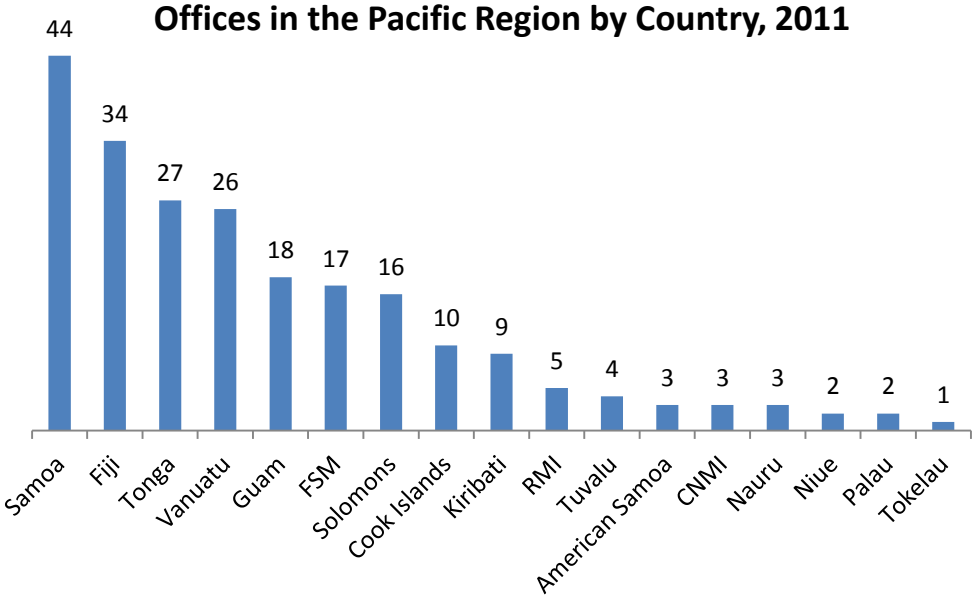
Mean	9.9
Median	12
Minimum	1
Maximum	44
Number of Offices with 5 or Less People	8
Percent of Offices with 5 or Less People	47.1%

N=224

- Samoa was the largest office with 44 staff members. Tokelau was the smallest, employing just 1 person.
- Almost 50 percent of offices in the region had 5 staff or less (47%). This equated to 8 of the 17 offices surveyed.
- Five offices (29%) had employed 6-15 staff members.

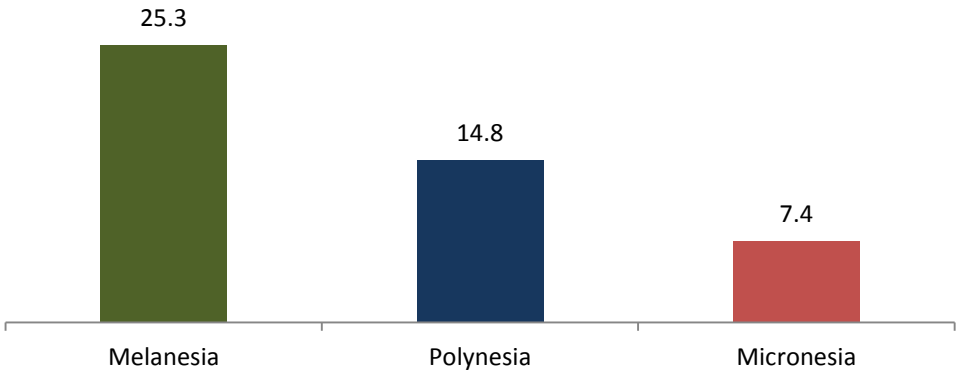
- Just 4 offices (less than 25%) had more than 15 staff members. Only 2 offices (12%) had 25 staff or more.

Figure 3.1: Staff Numbers in National Statistical Offices in the Pacific Region by Country, 2011



- Melanesia had, on average, the largest number of NSO staff (25) followed by Polynesia (15) and Micronesia (7).

Figure 3.2: Average Number of Staff in National Statistical Offices in the Pacific Region, 2011

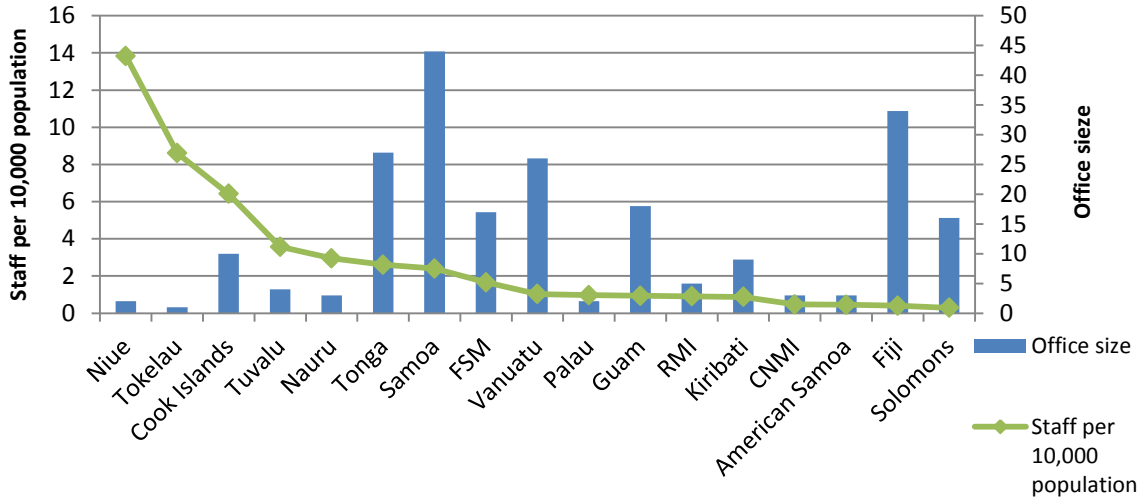


- It is important to consider population size when examining the number of staff in each NSO office. Niue, one of the smallest offices, had the equivalent ratio of almost 14 staff members per 10,000 population compared to the Solomon Islands who had 0.3 staff members per

10,000 population. Niue only had a population of 1,446 in 2011 and an NSO with 2 staff members. The Solomon Islands had a population of 553,254 in 2011 (a population 382 times larger than Niue's) and an office of 16 staff.

- While smaller offices may find it difficult to complete all the tasks required of them with a staff of less than 5, it may not be necessary to have an office as large as some of the more populous countries. It is necessary to have the appropriate balance between the complexity of duties undertaken and the number of staff required to perform these duties.

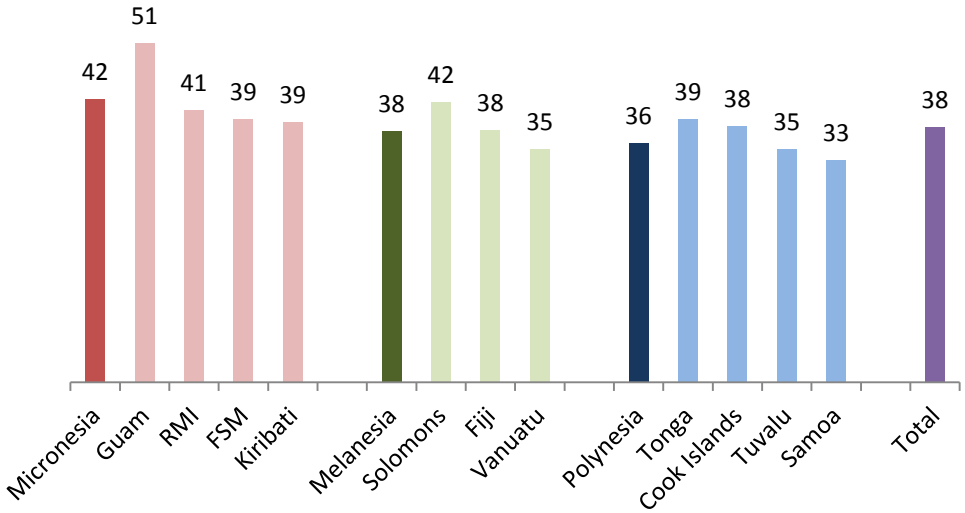
Figure 3.3: Staff per 10,000 Population and Office Size



3.2 Age, Sex, and Years Working in the NSO

- The average age of office staff was 38 and median age was 37.
- The youngest staff member was 19 while the oldest was 80.
- Micronesia had the oldest mean age at 42 years, followed by Melanesia (38), and Polynesia (36).

Figure 3.4: Mean Age by Country and Region



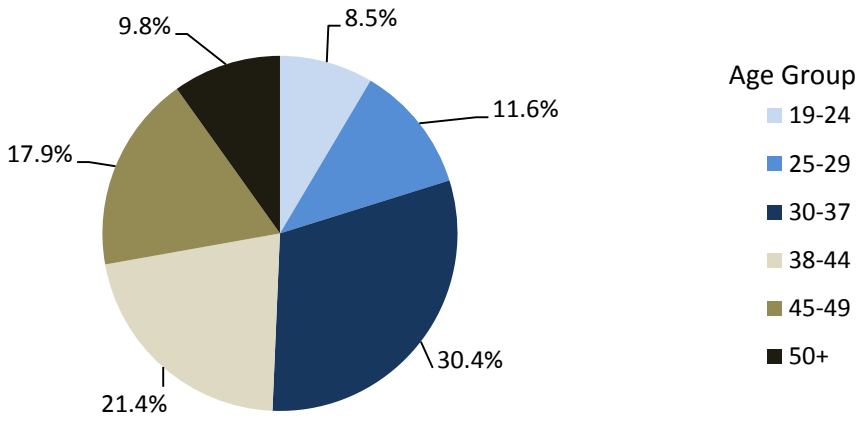
Note: Countries with 3 or less staff are not displayed for confidentiality purposes. Regions and total include all 17 countries.

Table 3.2: Age of Office Staff

Mean	38
Median	37
Minimum	19
Maximum	80

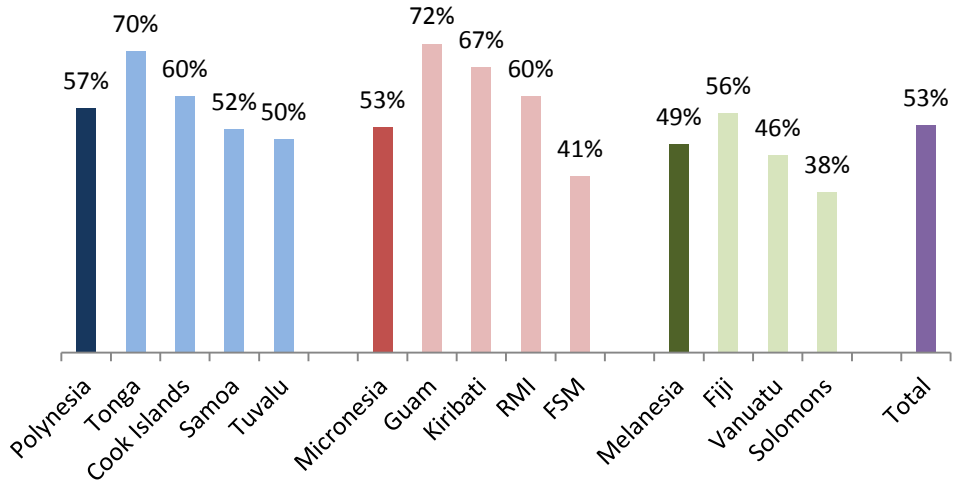
- Only 20 percent of staff were under age 30 while about 28 percent of staff were aged 45 and older.

Figure 3.5: Percent Distribution of Staff by Age Group



- Overall, 53 percent of staff were women. Polynesia was the region with the highest percentage of female staff (57%). All NSOs in the Polynesian region employed at least 50 percent female staff.
- Guam (72%) and Tonga (70%) had large percentages of female staff while Solomon Islands (38%) and FSM (41%) experienced the lowest.
- Gender will be explored in more detail in section 3.6.

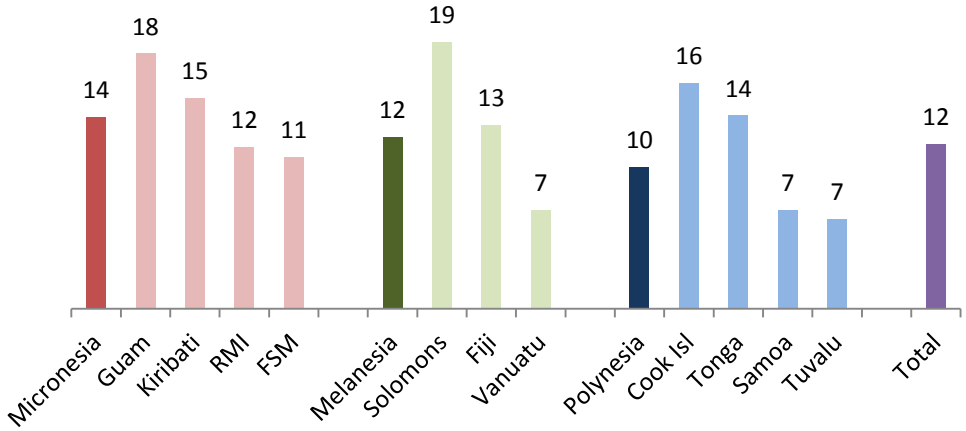
Figure 3.6: Percent of Staff Who are Female by Country and Region



Note: Countries with 3 or less staff are not displayed. Regions and total include all 17 countries.

- On average, staff had about 12 years of experience working in the NSOs. Median years of experience was 10, however, the range of experience varied from 2 months to 35 years.
- The Micronesian region had the highest number of years of experience with 14 years. All countries in this region reported having an average of at least 11 years of experience. This is not surprising as this region also had the highest average age of office staff.

Figure 3.7: Mean Number of Years Working in the NSO by Country and Region



Note: Countries with 3 or less staff are not displayed. Regions and total include all 17 countries.

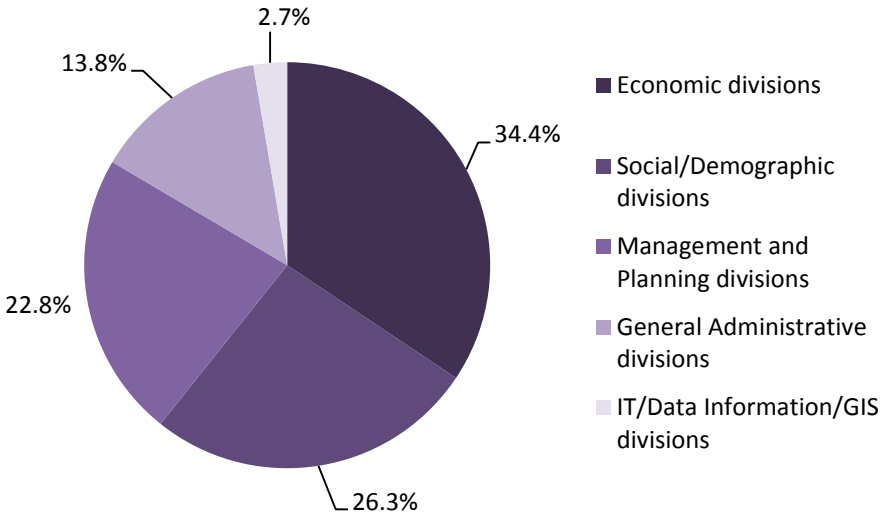
Table 3.3: Number of years working in the NSO

Mean	11.9
Median	10.0
Minimum	.17
Maximum	35.0

3.3 Job Title and Divisional Category

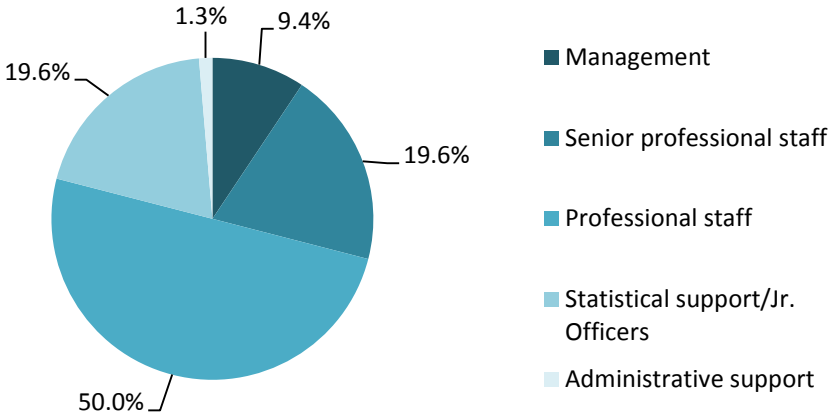
- More NSO staff were allocated to economic divisions than any other division (34%).
- Social and demographic divisions accounted for the second largest percentage of staff at 26 percent. This was followed by Management and Planning divisions (23%), General Administrative divisions (14%), and IT/data information planning divisions (3%).

Figure 3.8: Percent Distribution of Office Staff by Division



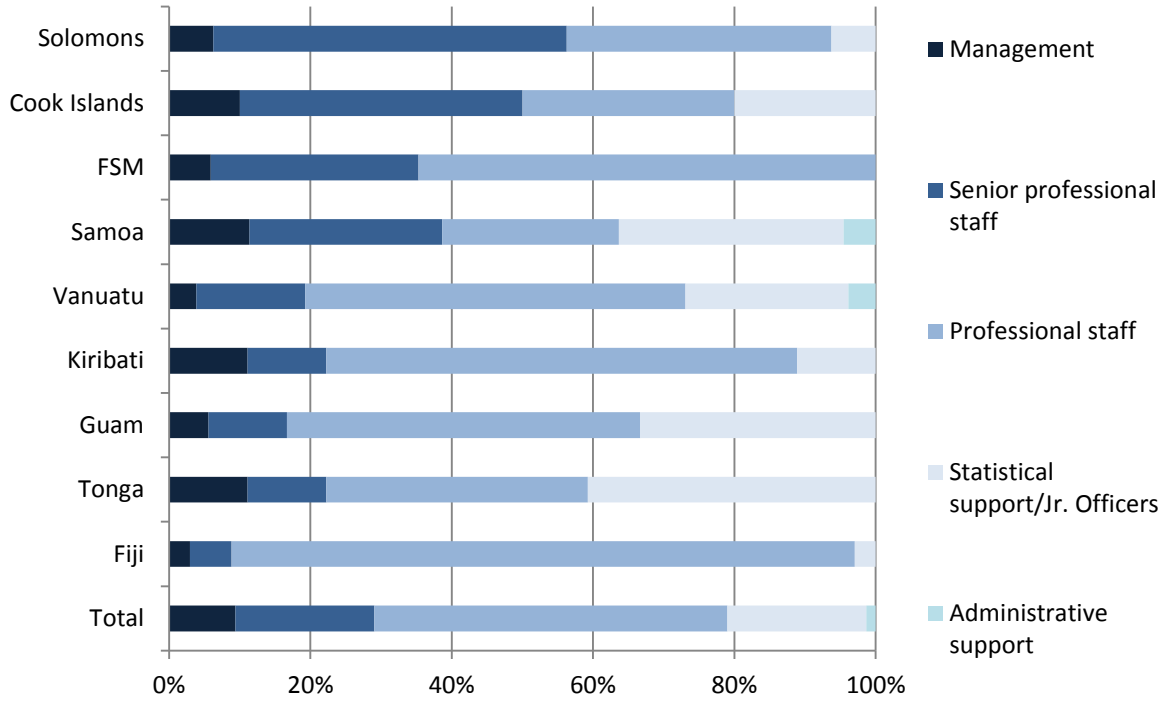
- Seventy-nine percent of staff were professional level staff or above. Just 21 percent were support staff or junior officers.

Figure 3.9: Percent Distribution of Office Staff by Job Category



- The Solomon Islands and Cook Islands had the highest percentages of senior professional staff at 50 percent and 40 percent respectively.
- Fiji had the lowest percent of senior professional staff at 6 percent; however, Fiji was the country with the largest percentage of professional staff at 88 percent.
- Tonga, Guam, and Samoa had the largest percentages of statistical support staff at 41 percent, 33 percent, and 32 percent respectively. FSM had no dedicated statistical support staff. Fiji (3%) and the Solomon Islands (6%) had the next lowest proportions of statistical support staff.
- Only Samoa (5%) and Vanuatu (4%) indicated the presence of administrative support staff.

Figure 3.10: Percent Distribution of Office Staff by Job Category by Country



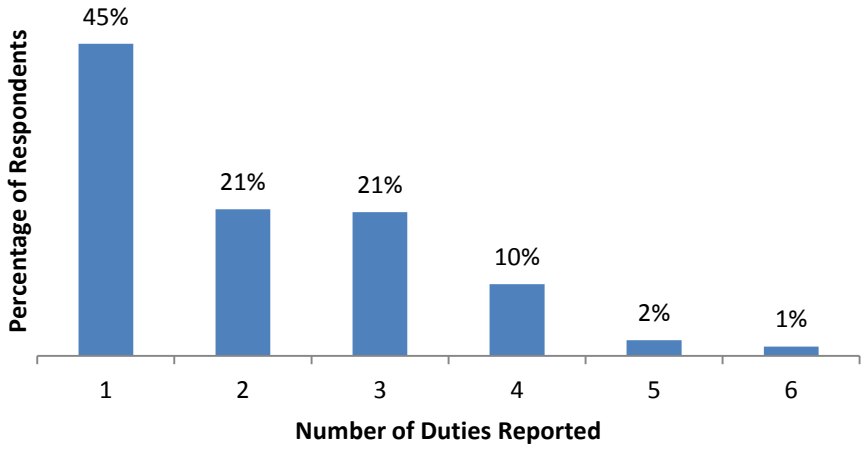
Note: Countries with 5 or less staff are not displayed. Total includes all 17 countries.

3.4 Reported Job Duties

- Respondents were asked to write in their principal job duties in the first section of the questionnaire. Job duties were analyzed and reclassified into 17 distinct tasks. Respondents were assigned as many different tasks as they listed in the response section. Because of this, it was possible for respondents to have 1 duty or as many as 17 duties.
- Some care is advised in interpretting these findings as some people may have answered this question in line with what duties they were performing at the time, and excluded other duties that are part of their general job description. In this respect, this survey may be best regarded as a snapshot rather than an all-ecompassing explanation of the range of job duties undertaken by an individual.

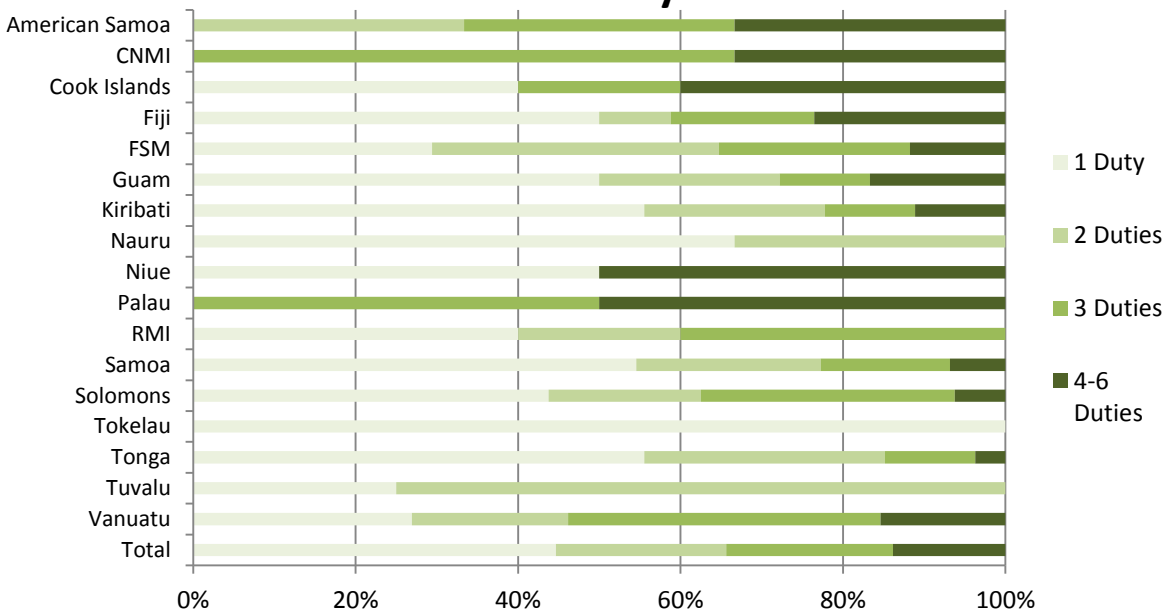
- On average, respondents reported performing 2 different job duties.
- Forty-five percent of respondents reported 1 job duty, 21 percent reported 2 or 3 job duties, and 10 percent reported 4 job duties.
- Just 3 percent of respondents reported 5-6 job duties

Figure 3.11: Number of Duties Reported



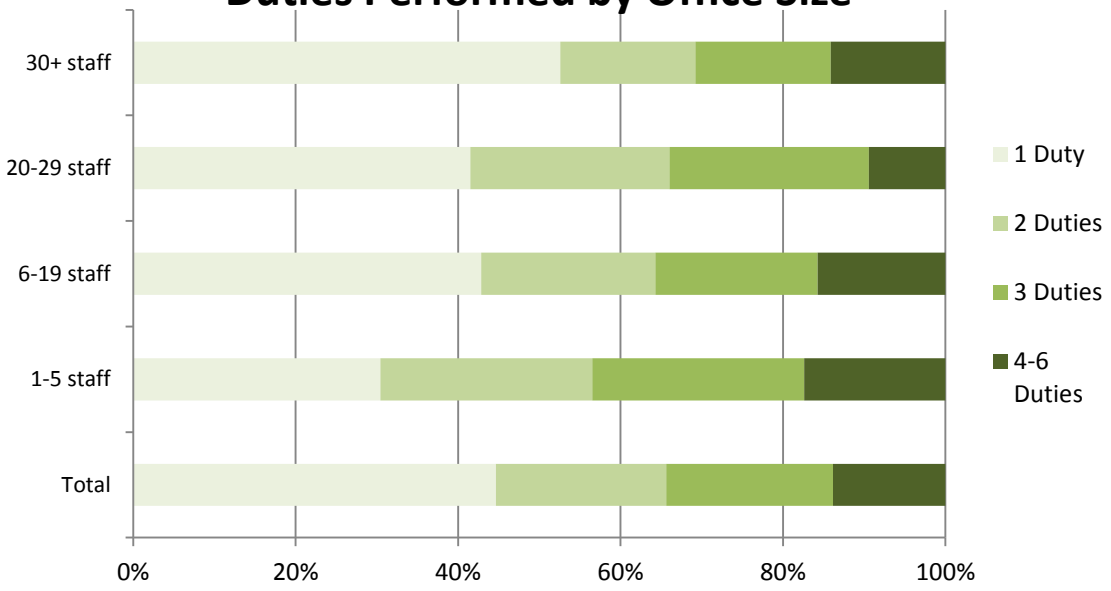
- Respondents reported doing a minimum of 2-3 duties in some of the smaller offices, such as American Samoa, CNMI, and Palau.

Figure 3.12: Number of Duties Performed by Country



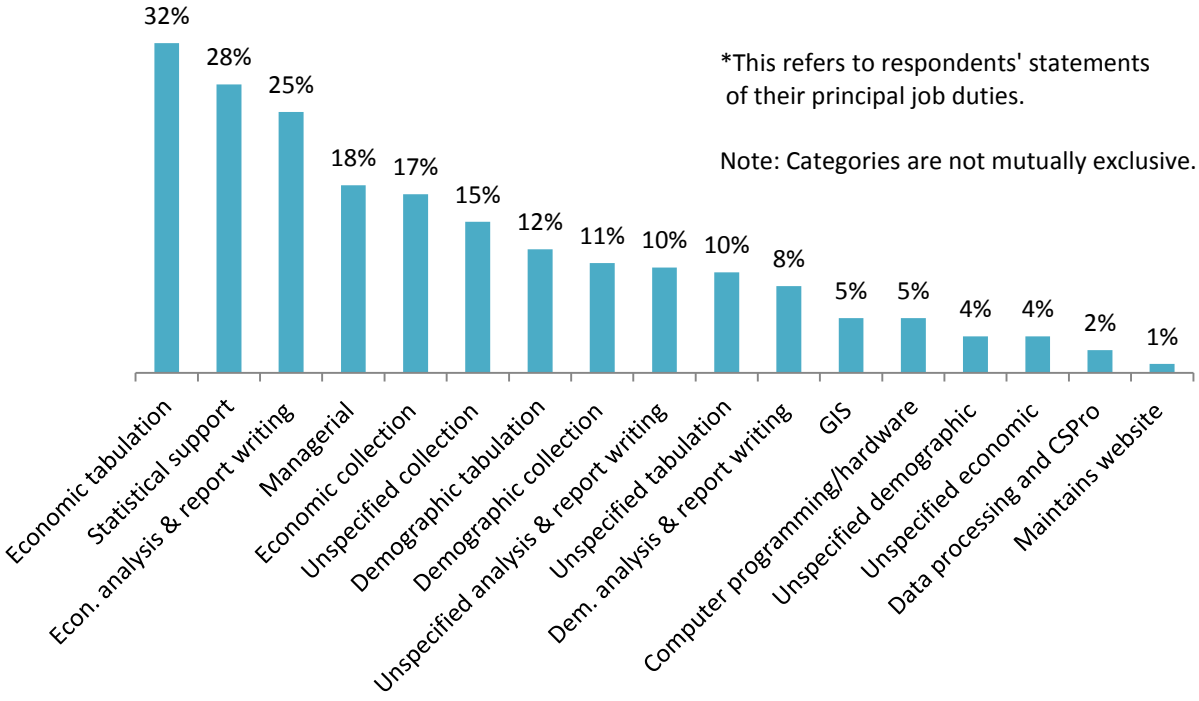
- Countries with 1-5 staff members reported performing more duties, on average, than the larger countries.

Figure 3.12: Percent Distribution of Number of Duties Performed by Office Size



- Economic tablulation was the most commonly reported job duty (32%) followed by statistical support (28%) and economic analysis and report writing (25%).
- It is worth noting that 3 of the 5 most commonly reported job duties were economically-related.
- Some of the least commonly-reported duties were IT-related, such as using GIS (5%), performing computer programming and building computer hardware (5%), and maintaining the website (1%).
- Only 2 percent of respondents listed data processing and using CSPro as one of their job duties.

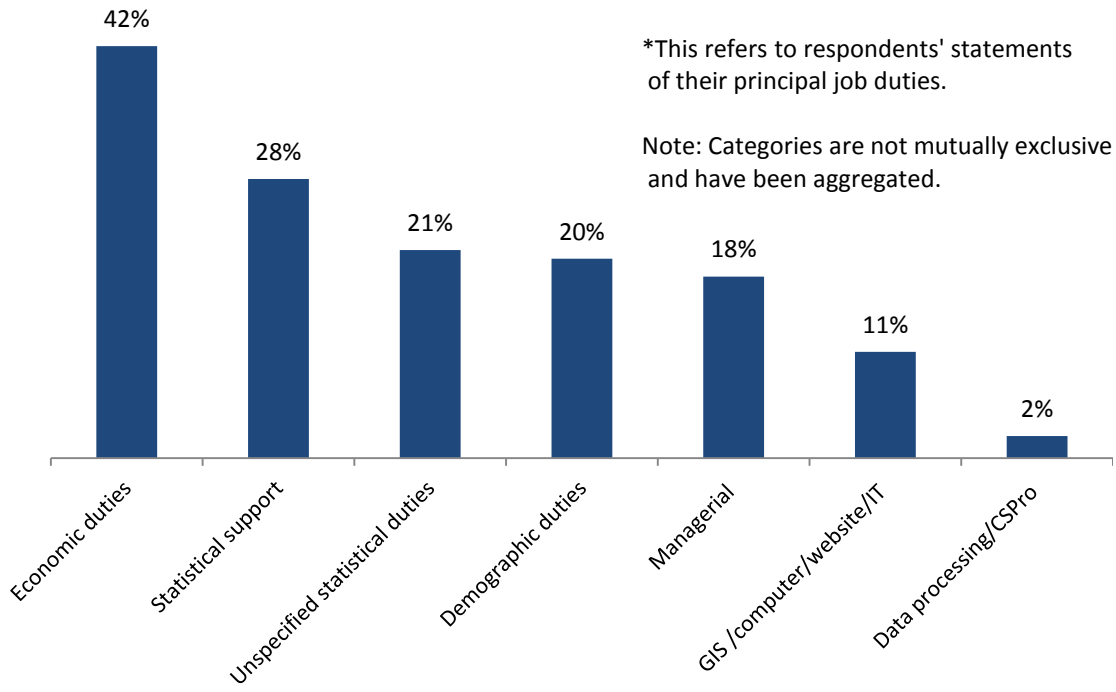
Figure 3.13: Percent of Respondents Who Perform Each Type of Job Duty*



- When duties were aggregated by topic, 42 percent of respondents reported performing economic duties comparted to just 20 percent of respondents who reported performing social and/or demographic duties.

- Eighteen percent of respondents listed managerial duties while 11 percent indicated they performed IT-related duties.

Figure 3.14: Percent of Respondents Who Perform Each Type of Job Duty*



- With the exception of the Cook Islands, less than 50 percent of staff reported performing social and/or demographic duties.
- In all countries, more staff reported performing economic-related duties than social and demographic-related duties.
- Only 4 countries had staff who reported doing data processing and/or CSPro duties.
- Three countries did not have any staff who reported performing IT-related duties such as website maintenance, GIS use, or computer maintenance.

Table 3.4: Percent of Staff Who Perform Each Duty By Country*

Countries	Managerial	Economic duties	Demographic duties	Unspecified statistical duties	Data processing/ CSPro	GIS /computer/ website/IT	Statistical support
Cook Islands	10.0	70.0	50.0	0.0	0.0	10.0	0.0
Fiji	14.7	41.2	23.5	17.6	0.0	23.5	20.6
FSM	23.5	47.1	11.8	58.8	0.0	5.9	5.9
Guam	16.7	38.9	11.1	16.7	0.0	5.6	55.6
Kiribati	22.2	77.8	22.2	11.1	0.0	0.0	0.0
RMI	20.0	20.0	0.0	60.0	20.0	20.0	40.0
Samoa	15.9	34.1	11.4	13.6	4.5	11.4	43.2
Solomons	6.3	43.8	25.0	18.8	0.0	0.0	18.8
Tonga	11.1	29.6	14.8	14.8	3.7	11.1	40.7
Tuvalu	25.0	75.0	25.0	25.0	0.0	0.0	25.0
Vanuatu	30.8	30.8	23.1	26.9	3.8	11.5	30.8
Countries with 3 or less staff	35.7	57.1	42.9	21.4	0.0	7.1	7.1
Total	18.3	41.5	20.1	21.0	2.2	10.7	28.1

*This refers to respondents' statements of their principal job duties. Note: Categories are not mutually exclusive and have been aggregated.

3.5 Formal Trainings

3.5.1 Formal Training Summary

- This is a summary of the number of formal training taken. This includes both formal job-specific and formal statistical training. It does not include informal in-house training or self-taught skills. Formal training will be explored more in detail in the following sections.
- On average, respondents received about 3 formal trainings.
- The maximum number of formal trainings taken by one respondent was 32, while the minimum was zero.
- Nine respondents (4.9%) received 10 or more trainings, while 2 (0.9%) had more than 20 formal trainings.
- Fifty-three (24%) of respondents did not receive any formal training. Of those who did not receive any formal training, 64 percent were women.

Table 3.5: Number of Formal Trainings Taken

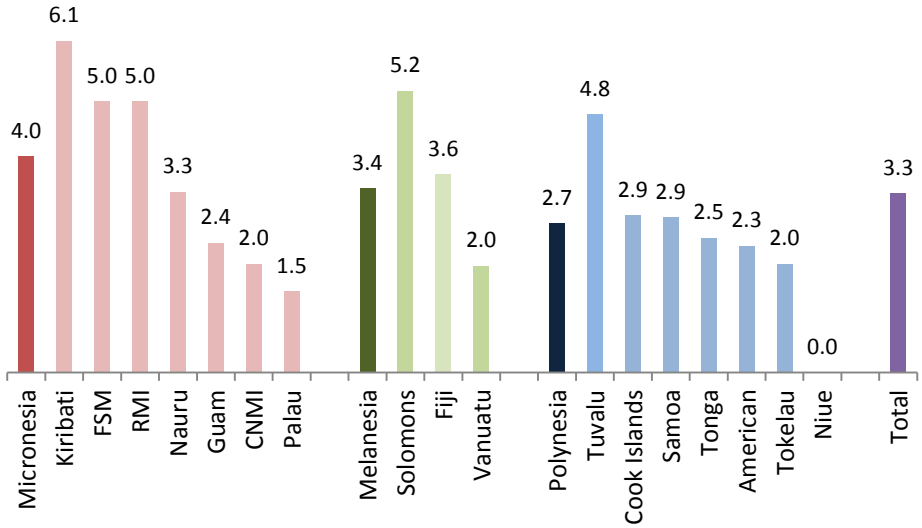
Mean	3.3
Median	2
Minimum	0
Maximum	32

N=224

3.5.2 Formal Training by Country

- The average number of formal trainings taken per staff member ranged from 0 in Niue to 6.1 in Kiribati. Other countries with large numbers of formal trainings included the Solomon Islands (5.2), FSM (5.0), RMI (5.0), and Tuvalu (4.8).
- Micronesia as a region had the largest number of formal trainings (4.0), followed by Melanesia (3.4), and Polynesia (2.7).

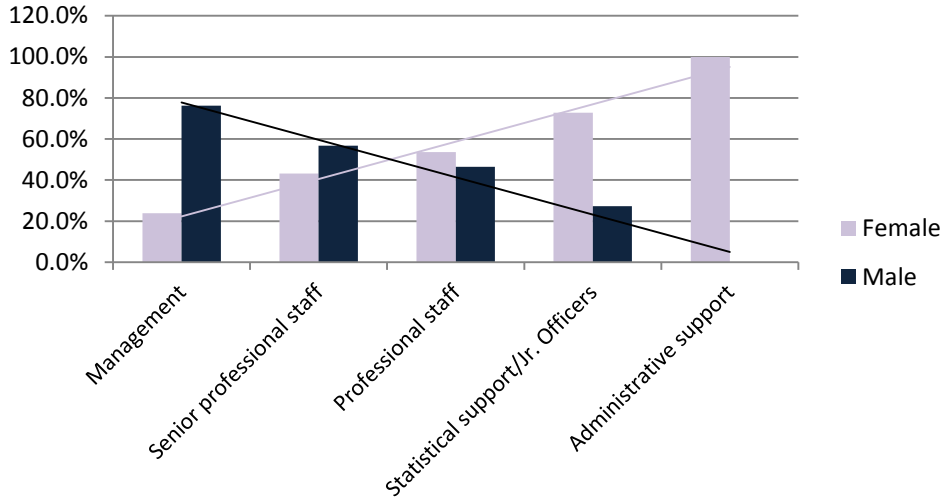
Figure 3.15: Mean Number of Formal Trainings Taken by Country and Region



3.6 Gender

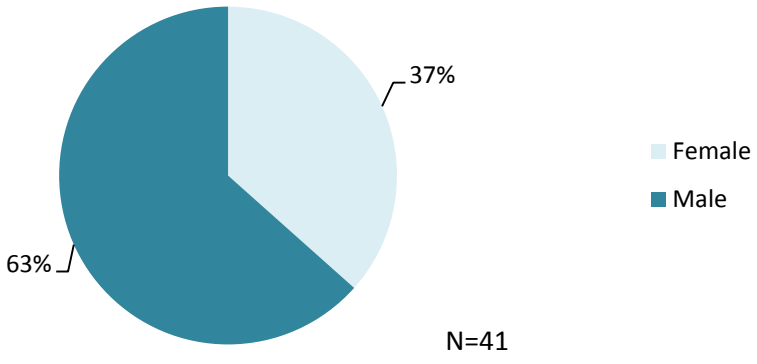
- While it might appear that there is near equality in the number of men and women in the NSOs of the Pacific region, there is actually a high level of divergence based on level of job category. A higher percentage of men occupy higher level jobs compared to women. The higher proportion of women in Pacific NSOs can partially be accounted for by the large percentage of female support staff.
- Only 24 percent of respondents in managerial job categories were women and just 2 of the 21 Pacific Islands Statistics Offices are headed by a woman.
- Conversely, 100 percent of administrative support personnel and 73 percent of statistical support personnel were women.
- Only 71 percent of women fell in the “professional” job-title category or above, compared to 89% of men. Amongst senior professional staff, men (57%) outnumbered women (43%) with a reverse picture emerging amongst professional staff (46% males compared to 54% females).
- Female senior professional staff had about 2 more years of experience than senior male professional staff (data not shown).

Figure 3.16: Job Category by Sex



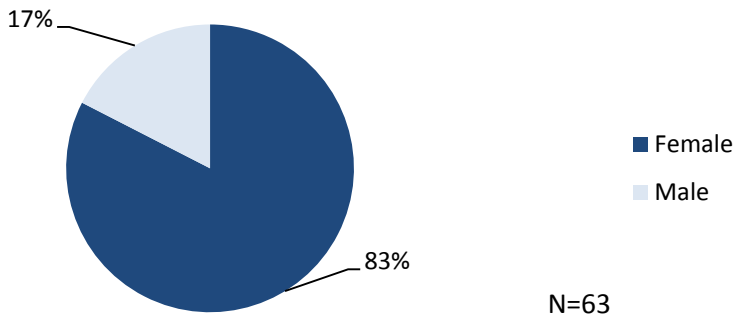
When examining job duties, it emerges that a much larger number of women perform managerial duties than their job titles might suggest. Of the respondents who reported performing managerial duties, 37 percent were women compared to the 24 percent of managers that were women.

Figure 3.17: Percent of Staff Who Reported Performing Managerial Duties by Sex



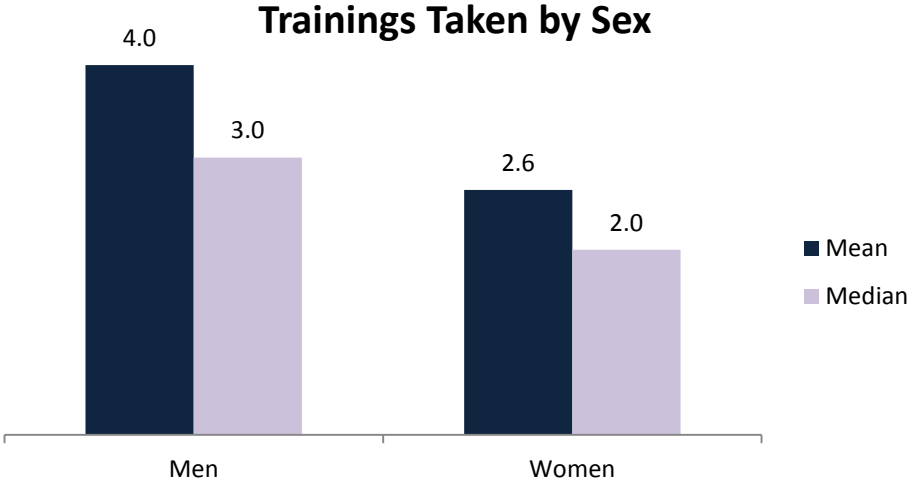
- Looking at job duties, a larger share of women perform statistical support duties than their job titles might suggest. Within the statistical support job title category, 73 percent of staff were women. However, Of the respondents who reported performing statistical support duties, 83 percent were women.

Figure 3.18: Percent of Staff Who Reported Performing Statistical Support Duties by Sex



- Furthermore, men received more formal training opportunities than did women on average (4.0 for men compared to 2.6 for women).

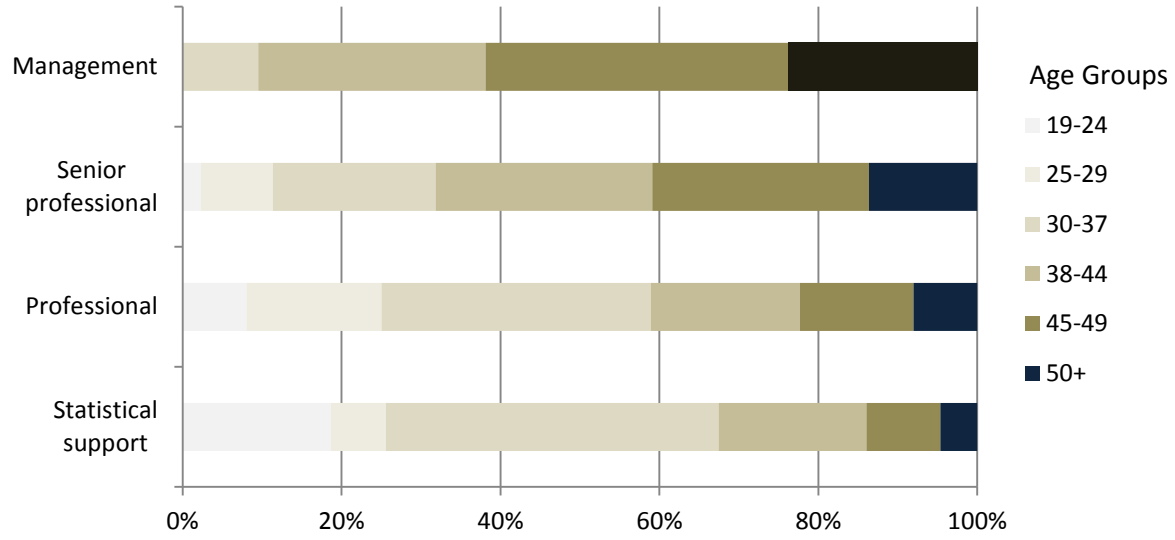
Figure 3.19: Mean and Median Formal Trainings Taken by Sex



3.7 AGE

- All managers were aged 35 and older.
- A little more than three-quarters (77%) of professional staff were aged 35 and older.
- About 50 percent of professional staff were under age 35.

Figure 3.20: Percent Distribution of Age Groups by Job Category



Note: Administrative support category not shown due to small sample size.

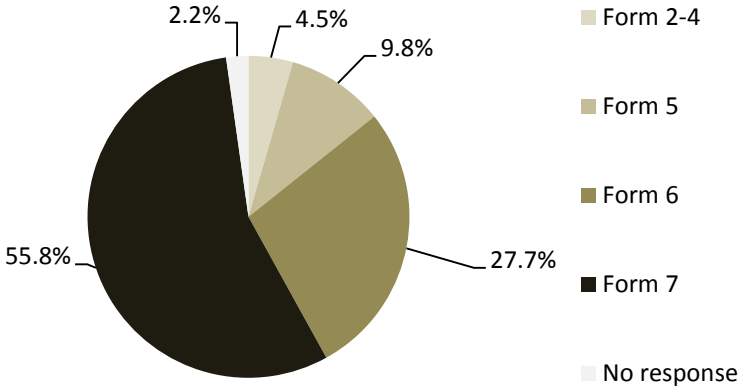
4 Education

- Respondents were asked to answer 4 questions pertaining to their educational background, specifically what was their highest level of secondary education completed, highest level of post-secondary attended, highest level of post-secondary completed, highest post-secondary qualification achieved?

4.1 Secondary Education

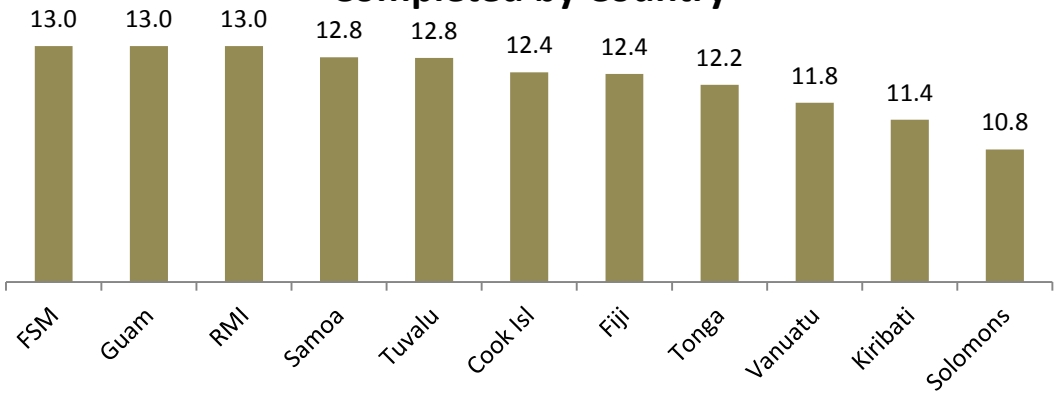
- More than half (56%) of respondents completed Form 7, 28 percent completed Form 6, 10 percent only completed Form 5, and 5 percent left school before completing Form 5.
- Note: A key translating the equivalence between Form, Year, and Grade can be found in the appendix. For comparison purposes, we report Year completed.

Figure 4.1: Highest Year of Secondary Education Completed



- Excluding staff who did not respond to the questions on secondary education, all staff in FSM, Guam, and RMI completed Year 13 or the equivalent of U.S. Grade 12.
- In other offices, secondary education ranged from 12.8 yeras in Samoa and Tuvalu to 11.4 and 10.8 yeras in Kiribati and the Solomon Islands respectively.

Figure 4.2: Mean Year of Secondary Education Completed by Country

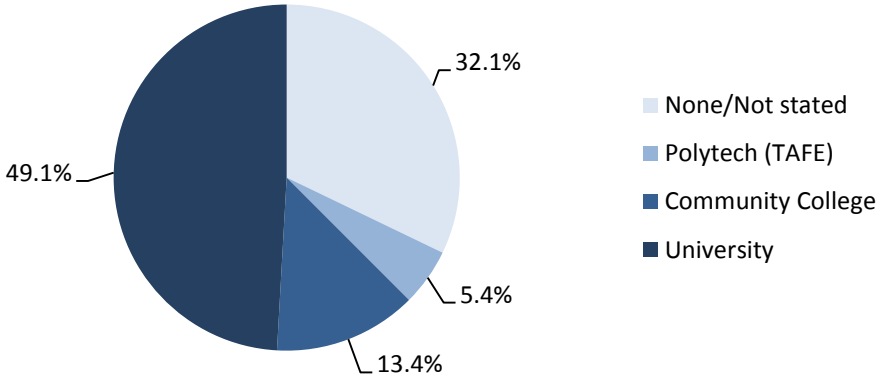


Note: Countries with 3 or less staff are not displayed for confidentiality purposes.
Values exclude non-reponses.

4.2 Post-Secondary Education

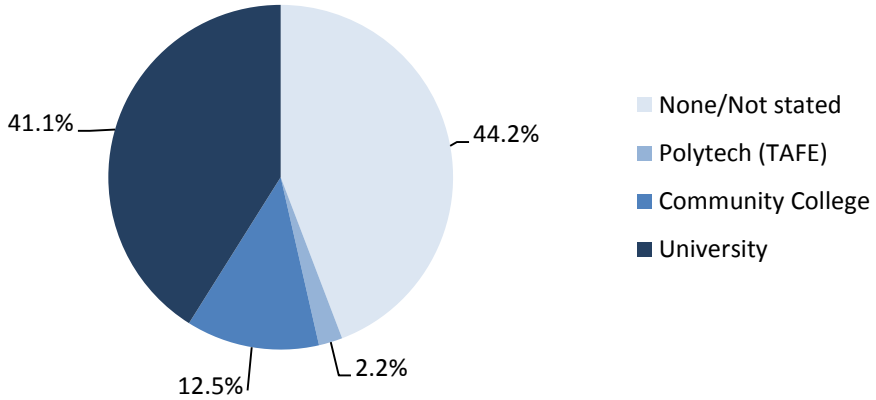
- Almost half (49%) of respondents attended university. Thirteen percent attended community college, 5 percent attended a polytech institute (such as TAFE), and 32 percent of respondent listed no post-secondary education.

Figure 4.3: Percent Distribution of the Highest Level of Post-Secondary Education Attended



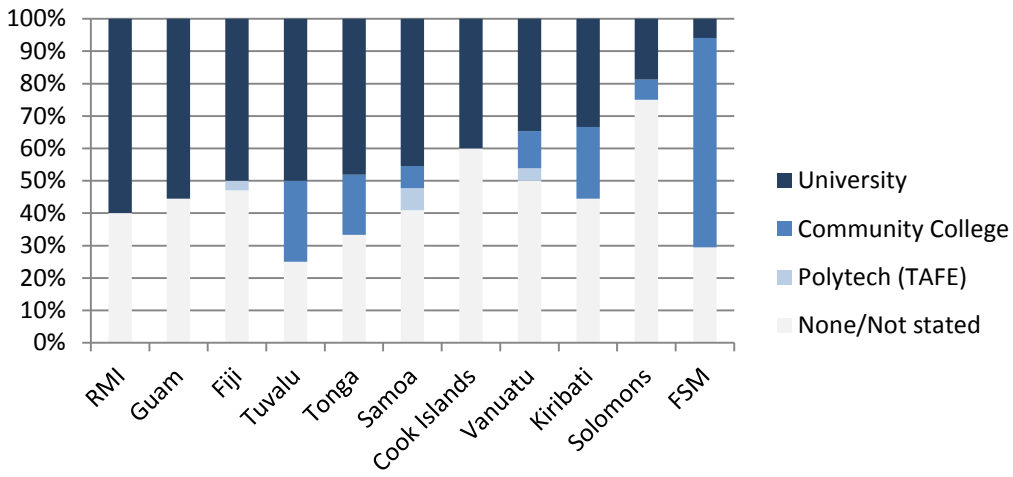
- Forty-one percent of respondents completed a university education. Thirteen percent completed Community College, 2 percent finished education at a polytech institute, and 44 percent did not list any completed post-secondary education.

Figure 4.4: Percent Distribution of the Highest Level of Post-Secondary Education Completed



- Four countries had 50 percent or more of staff complete University: RMI (60%), Guam (56%), Fiji (50%), and Tuvalu (50%).
- The Solomon Islands (19%) and FSM (6%) were the countries with the smallest percentages of staff who completed University. However, it should be noted that 65 percent of staff in FSM completed Community College.
- Three countries had 50 percent or more of staff who did not list having completed any post-secondary education: the Solomon Islands (75%), Cook Isalnds (60%), and Vanuatu (50%).

Figure 4.5: Percent Distribution of Post-Secondary Education Completed by Country

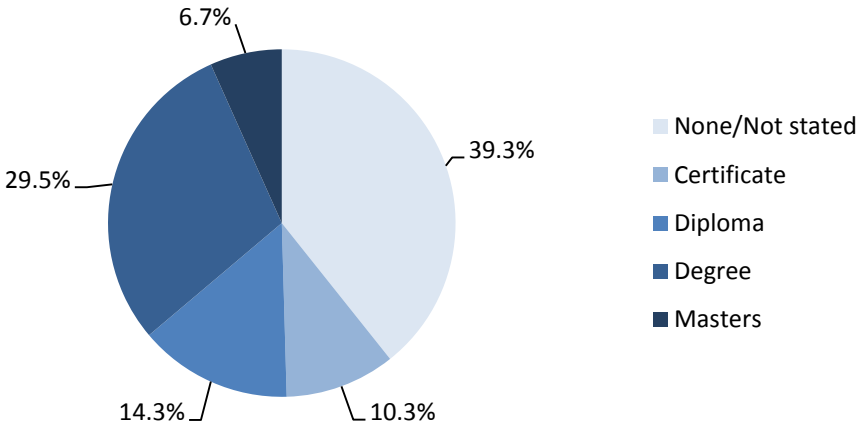


Note: Countries with 3 or less staff are not displayed for confidentiality purposes.

4.3 Highest Post-Secondary Qualification Achieved

- Half of all respondents listed having either a diploma, degree, or a Masters degree.
- Thirty percent of respondents achieved a degree.
- Thirty-nine percent of respondents did not list any post-secondary qualification.

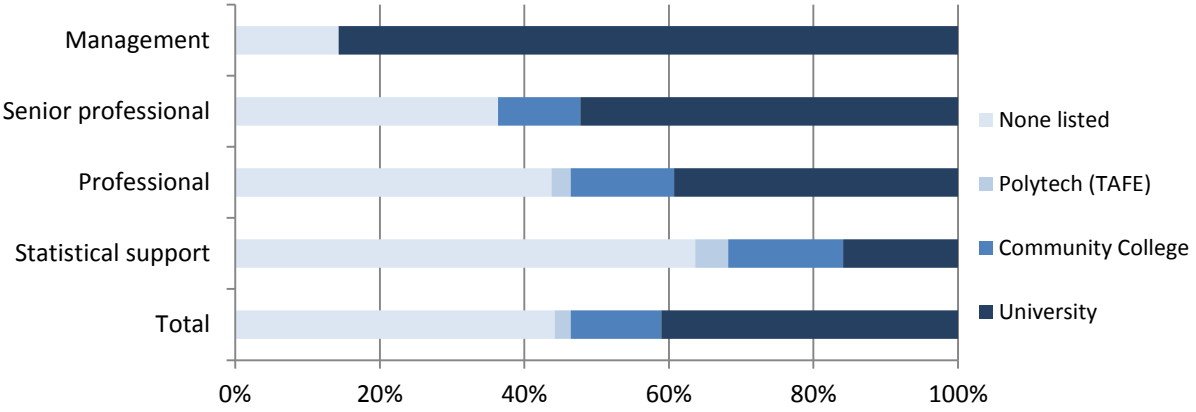
Figure 4.6: Percent Distribution of the Highest Level of Post-Secondary Qualification Achieved



4.4 Post-Secondary Education by Job Category

- Managerial staff were the most likely to complete university (86%) followed by senior professional staff (52%), and professional staff (39%). Only 16 percent of statistical support staff completed university.
- Statistical support was the job category with the highest proportion of staff who did not list completing any post-seconday education (64%). Additionally, 44 percent of professional staff, 36 percent of senior professional staff, and 14 percent of managerial staff did not indicate completing any post-secondary school.

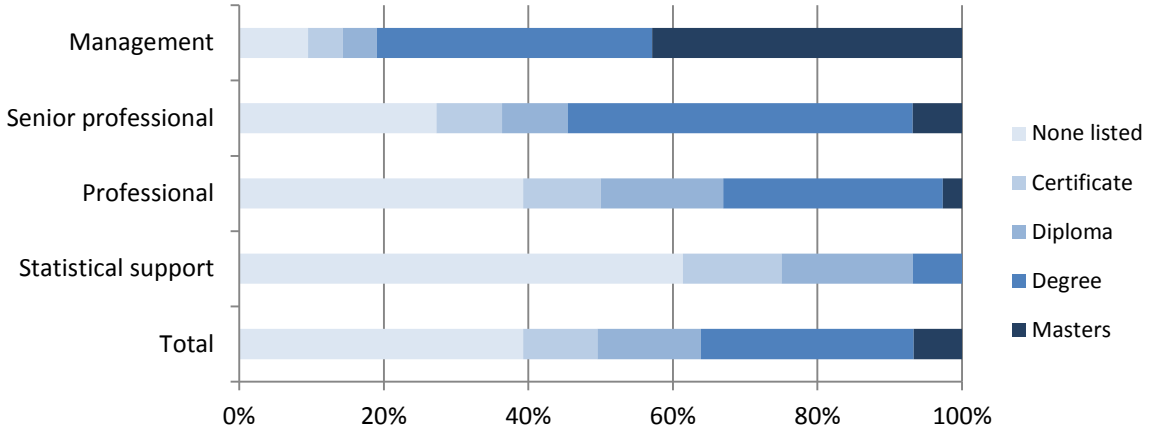
Figure 4.7: Percent Distribution of Highest Level of Post-Secondary Education Completed by Job Category



Note: Administrative support category not shown due to small sample size.

- Forty-three percent of managerial staff completed a Master's degree compared to 7 percent of senior professional staff and 3 percent of professional staff.
- Thirty-eight percent of managers, 48 percent of senior professional staff, 30 percent of professional staff, and 7 percent of statistical support staff completed a degree.
- Ten percent of managerial staff listed no post-secondary qualifications, as did 27 percent of senior professional staff, 40 percent of professional staff, and 61 of statistical support staff.

Figure 4.8: Percent Distribution of Highest Level of Qualification Completed by Job Category



Note: Administrative support category not shown due to small sample size.

4.5 Post-Secondary Education by Job Duties

- As opposed to looking at educational achievement by respondents' job title, Table 4.1 examins educational achievement by duties respondents reported performing.
- Twenty-two percent of those who reported performing managerial duties had a Master's Degree, compared to 39 percent with a degree, 10 percent with a diploma, 2 percent with a certificate and 27 percent who listed no post-secondary educational achievment.
- For staff performing data analysis and report writing, 0 to 22 percent had a Master's degree, 22 to 37 percent had a degree, but 30 to 44 percent had no post-secondary qualification listed.

Table 4.1: Highest Educational Qualifications Achieved by Job Duties Performed*

Job Duties Performed	Highest Educational Qualification Achieved				
	None listed	Certificate	Diploma	Degree	Master's
Managerial	26.8%	2.4%	9.8%	39.0%	22.0%
Demographic collection	54.2%	4.2%	12.5%	20.8%	8.3%
Economic collection	48.7%	15.4%	12.8%	20.5%	2.6%
Unspecified collection	33.3%	15.2%	18.2%	27.3%	6.1%
Demographic tabulation/collation	59.3%	3.7%	14.8%	22.2%	0.0%
Economic tabulation/collation	41.7%	9.7%	12.5%	34.7%	1.4%
Unspecified tabulation/collation	27.3%	9.1%	18.2%	36.4%	9.1%
Demographic analysis and report writing	42.1%	10.5%	5.3%	36.8%	5.3%
Economic analysis and report writing	43.9%	8.8%	15.8%	31.6%	0.0%
Unspecified analysis and report writing	30.4%	4.3%	21.7%	21.7%	21.7%
Data processing and CSPro	0.0%	20.0%	20.0%	60.0%	0.0%
Statistical support	52.4%	11.1%	17.5%	19.0%	0.0%
GIS	33.3%	8.3%	8.3%	41.7%	8.3%
Computer programming /maintains hardware	8.3%	0.0%	25.0%	58.3%	8.3%
Maintains website	100.0%	0.0%	0.0%	0.0%	0.0%
Unspecified demographic	12.5%	37.5%	12.5%	25.0%	12.5%
Unspecified economic	37.5%	37.5%	0.0%	25.0%	0.0%

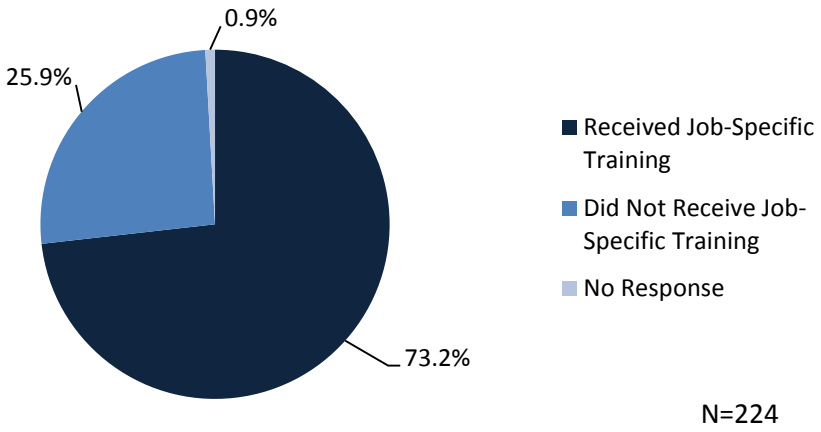
*This refers to respondents' statements of their principal job duties. Note: Categories are not mutually exclusive.

5 Job-Specific Training

5.1 Overview of Job-Specific Training

- Respondents were asked if they had received any job-specific training to help them perform their principal duties. Trainings covered in this section were meant to be trainings relevant to respondents' job duties and may not provide a comprehensive picture of all the trainings respondents took over the life of their career. Furthermore, because respondents had many different job duties, trainings for each job duty may not have been listed.
- Approximately 73 percent of respondents indicated that they had received some type of job-specific training (N=164).

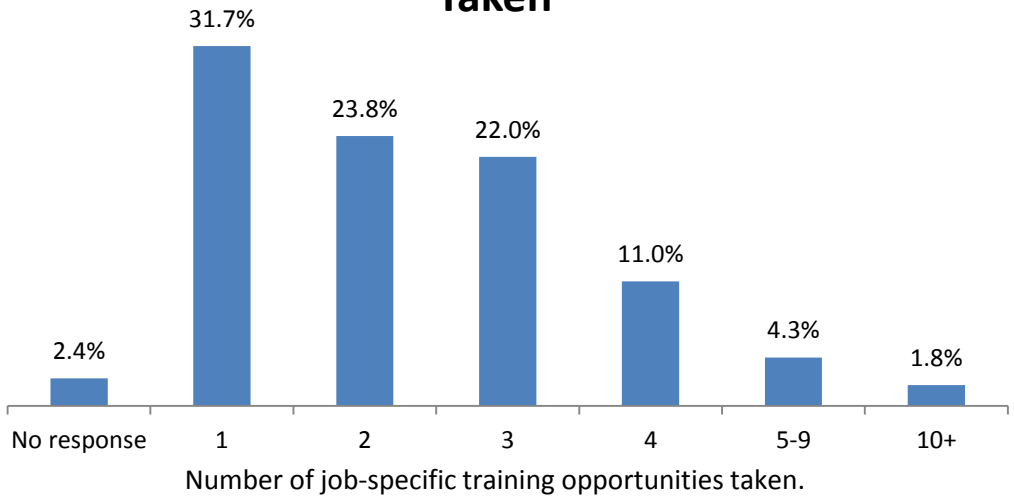
Figure 5.1: Percent of Respondents Who Received Job-Specific Training



N=224

- Of the respondents who had received job-specific training, each had an average of 2.5 job-specific training opportunities. The median was 2. About 77 percent of respondents indicated they had received 1-3 job-specific trainings. Three respondents (2%) indicated they had received 10 or more job-specific trainings.

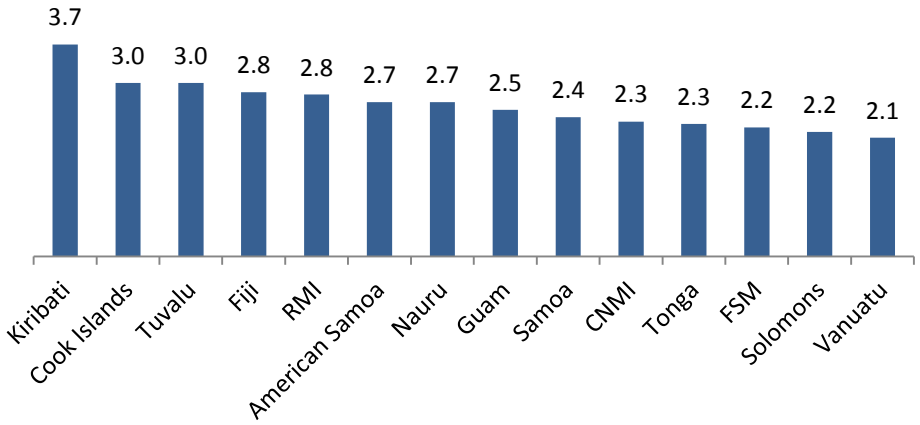
Figure 5.2: Percent Distribution of Number of Job-Specific Training Opportunities Taken



Note: Excludes respondents who did not indicate receiving job-specific training. N=164

- Of staff who indicated they had received job-specific training, the average number of training opportunities ranged from a high of 3.7 in Kiribati to 2.1 in Vanuatu.

Figure 5.3: Mean Number of Job-Specific Training Opportunities Taken by Country



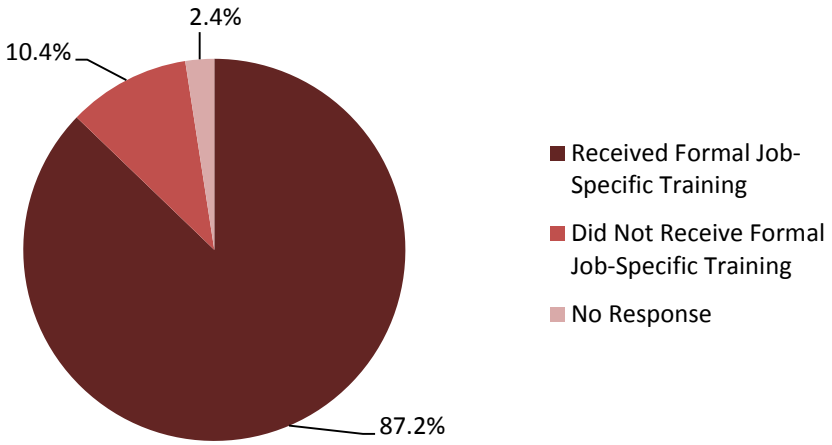
Note: Excludes respondents who did not indicate receiving job-specific training. N=164

5.2 Formal Job-Specific Training

- Formal job-specific training refers to learning opportunities provided by a variety of statistical training providers, such as universities, statistical training institutes (e.g. SIAP Singapore), national statistical agencies of metropolitan countries (ABS, Stats NZ, US Census Bureau etc.) and international technical agencies (e.g. SPC, ESCAP, World Bank etc.).

- Of all the respondents who indicated that they had received job-specific training, 87 percent received a formal training.
- About 10 percent of respondents only received informal on-the-job/taught by a colleague job-specific training.

Figure 5.4: Percent of Staff Who Received Formal Job-Specific Training



Note: Excludes respondents who did not indicate receiving job-specific training. N=164

- Seventy-two percent indicated they had participated in 1-3 formal job-specific training opportunities.
- Two respondents (1%) indicated they had received 10 or more formal job-specific trainings.

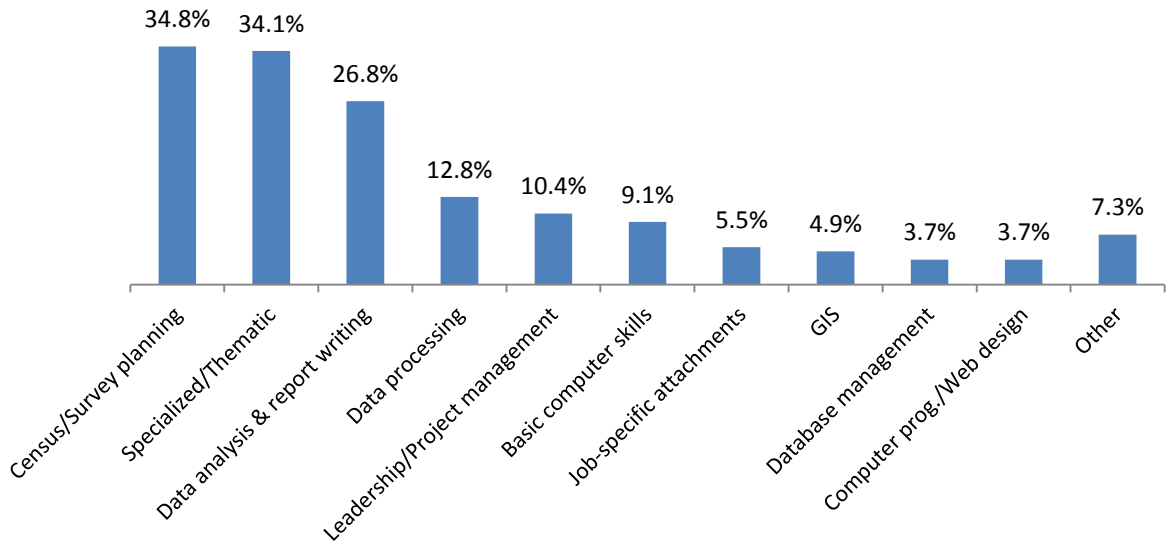
Figure 5.5: Percent Distribution of Number of Formal Job-Specific Trainings Taken

Note: Excludes respondents who did not indicate receiving job-specific training. N=164

5.3 Types of Job-Specific Training and Training Providers

- Respondents were asked to identify all the job-specific training opportunities they had taken, the type of training, and who provided the training. The responses below are only for respondents who indicated they received job-specific training.
- The three most common trainings were census and survey planning (34%), specialized thematic (34%), and data analysis and report writing (26%) trainings.

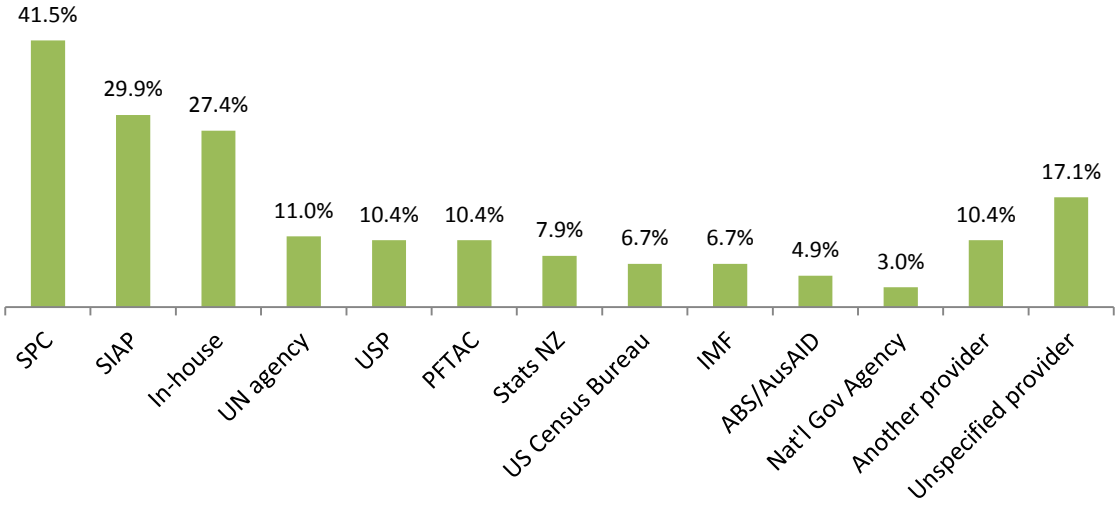
Figure 5.6: Percent of Job-Specific Trained Respondents by Training Topic



Note: Excludes respondents who did not indicate receiving job-specific training. N=164

- The three most common training providers were SPC, SIAP, and in-house or informal providers. Forty-two percent of respondents who received job-specific training had a course from SPC, 30 percent from SIAP, and 27 percent from an in-house/informal source.
- Only 3 percent of respondents received formal job-specific training from their national Government.

Figure 5.7: Percent of Respondents Who Had Job-Specific Trainings by Training Provider



Note: Excludes respondents who did not indicate receiving job-specific training. N=164

5.4 Job-Specific Training by Duty of Respondent

- Table ___ illustrates there is a training gap between respondents' duties and job-specific training opportunities taken. For all duties, less than 50 percent of respondents took a training course related to their duties.
- Of the respondents who indicated they performed managerial duties, just 24 percent had received job-specific training in leadership.
- Approximately one-third of respondents who perform data collection duties received training in census and/or survey planning (range of 28 percent for economic collection to 33 percent for unspecified collection).
- Of staff who indicated they performed tabulations, only 8 to 18 percent had received training in basic computer skills, such as creating Excel spreadsheets. Perhaps more surprising, less than 2 percent had training in database management.
- Of the respondents who reported data analysis and report writing to be one of their primary duties, only 16 to 26 percent had received training in this subject.
- Of the 5 respondents who reported data processing and CSPro as one of their primary duties, none listed having training in CSPro.
- Only 8 percent of people who performed statistical support duties had training in basic computer skills (Excel, Word, etc.).
- Just 17 percent of those listing GIS-related activities as a primary duty had received training in GIS. The same was true for staff performing computer programming and hardware maintenance duties; 17 percent had received training in this area.

Table 5.1: Percent of Job-Specific Training Courses Taken by Duty Type*

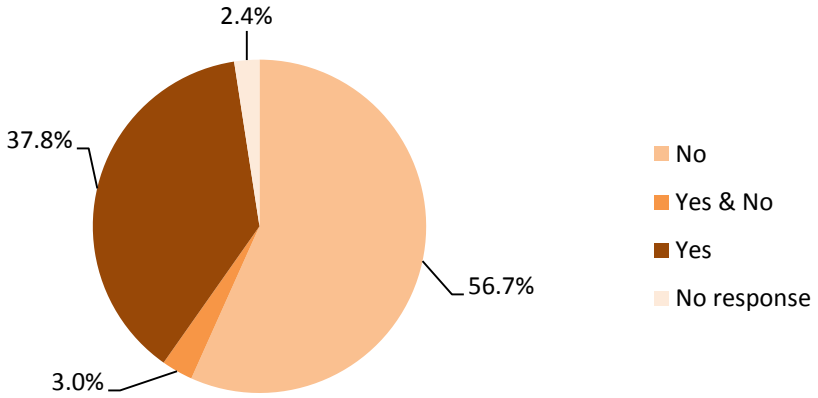
Duties	Training Taken										
	Leadership/Project management	Census/Survey planning	Data analysis & report writing	Specialized/Thematic	Job-specific attachments	Database management	Data processing	Basic computer skills	GIS	Computer prog./Web design	Other
Managerial *(N=41)*	24.4	36.6	26.8	51.2	4.9	4.9	12.2	2.4	4.9	2.4	7.3
Demographic collection *(N=24)*	12.5	29.2	25.0	20.8	0.0	8.3	16.7	8.3	4.2	4.2	8.3
Economic collection *(N=39)*	5.1	28.2	17.9	25.6	10.3	2.6	10.3	5.1	2.6	0.0	5.1
Unspecified collection *(N=33)*	0.0	33.3	27.3	27.3	0.0	0.0	12.1	9.1	6.1	0.0	9.1
Demographic tabulation *(N=27)*	0.0	22.2	25.9	37.0	3.7	0.0	18.5	14.8	7.4	7.4	11.1
Economic tabulation *(N=72)*	4.2	29.2	18.1	31.9	8.3	1.4	11.1	8.3	2.8	0.0	2.8
Unspecified tabulation *(N=22)*	0.0	27.3	45.5	27.3	4.5	0.0	13.6	18.2	13.6	9.1	4.5
Dem. analysis & report writing *(N=19)*	5.3	21.1	15.8	26.3	5.3	0.0	15.8	0.0	5.3	5.3	10.5
Econ. analysis & report writing *(N=19)*	5.3	24.6	15.8	33.3	12.3	1.8	10.5	5.3	0.0	0.0	0.0
Unspecified analysis & report writing *(N=23)*	4.3	21.7	26.1	30.4	4.3	0.0	8.7	8.7	8.7	8.7	8.7
Data processing and CSPro *(N=5)*	0.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	40.0	0.0	0.0
Statistical support *(N=63)*	6.3	22.2	7.9	12.7	0.0	1.6	6.3	7.9	0.0	0.0	4.8
GIS *(N=12)*	16.7	33.3	25.0	16.7	0.0	0.0	8.3	8.3	16.7	0.0	25.0
Computer programming/hardware *(N=12)*	8.3	8.3	25.0	16.7	8.3	8.3	8.3	0.0	8.3	16.7	8.3
Maintains website *(N=2)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Unspecified demographic *(N=8)*	0.0	12.5	25.0	12.5	0.0	0.0	12.5	12.5	0.0	0.0	0.0
Unspecified economic *(N=8)*	0.0	25.0	12.5	37.5	0.0	12.5	12.5	0.0	25.0	12.5	0.0

*This refers to respondents' statements of their principal job duties. Note: Categories are not mutually exclusive.

5.5 Job-Specific Training Sufficiency

- Of the respondents who received job-specific training, only 38 percent believed their training to be sufficient to do a competent job in the office.

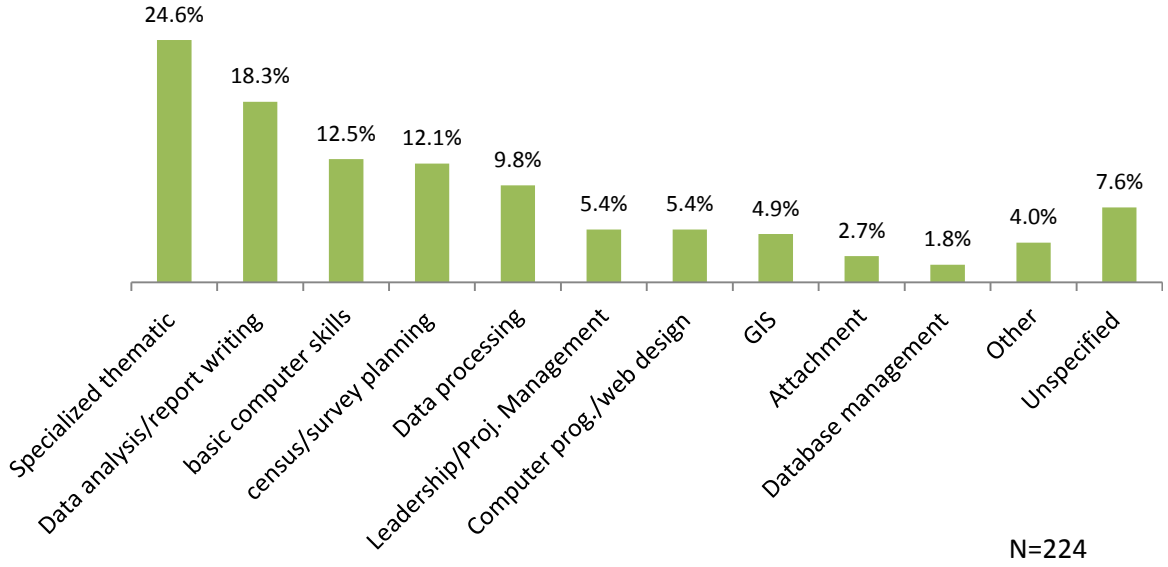
Figure 5.8: Was Job-Specific Training Sufficienct?



Note: Excludes respondents who did not indicate receiving job-specific training. N=164

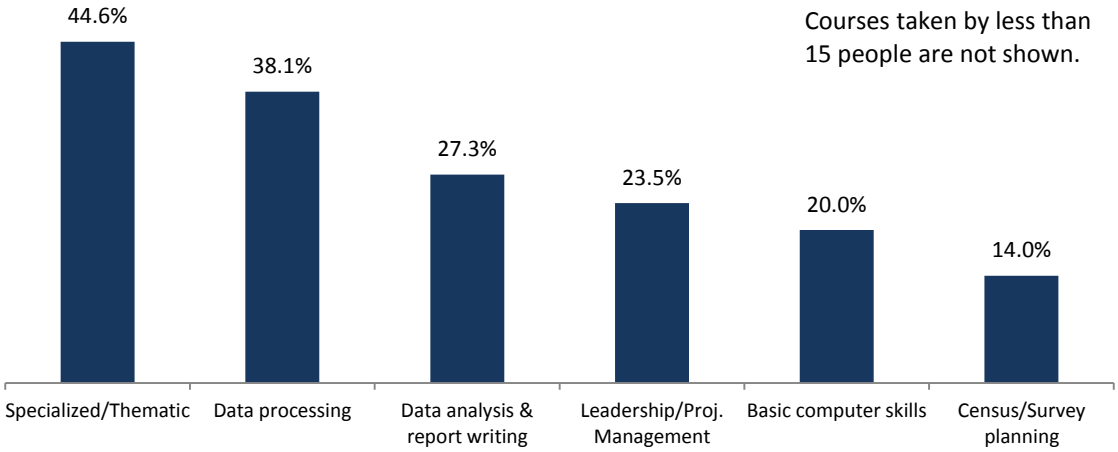
- The 2 most requested trainings from all respondents were specialized thematic courses (25%) and data analysis and report writing (18%).
- Tainings in Excel/basic computer skills (13%) and in census and survey planning (12%) were the third and fourth most requested courses.

Figure 5.9: Percent of Respondents Who Indicated a Need for Training by Training Topic



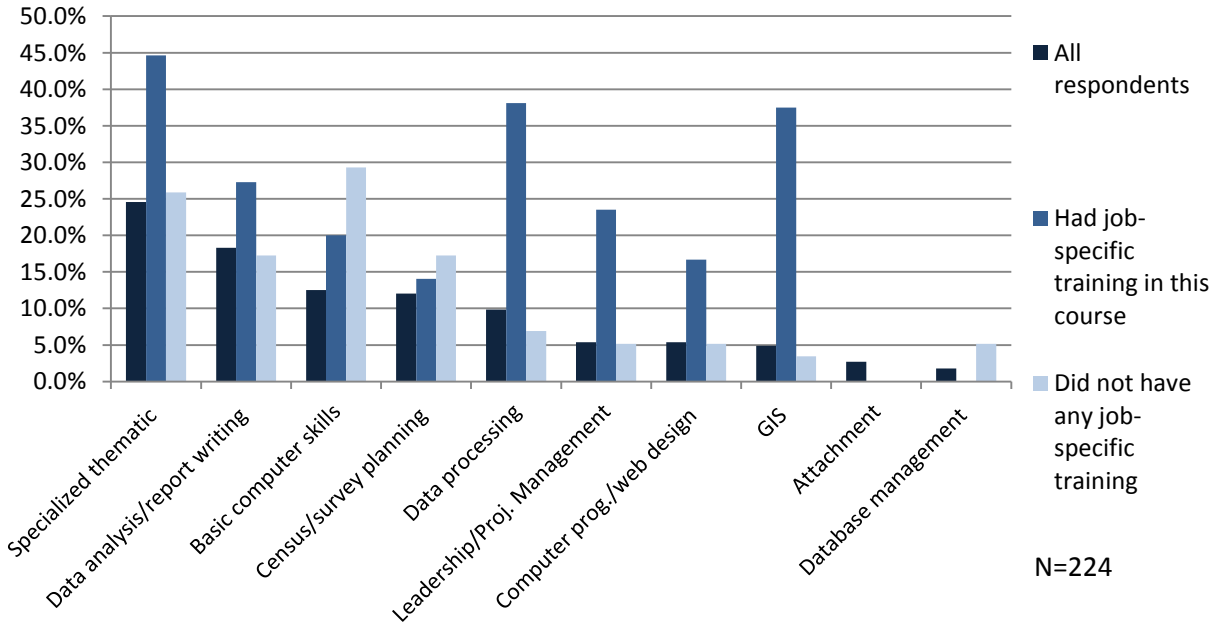
- We examined the respondents who had job-specific training in a certain topic and who indicated that they required more training in the same topic. Specialized/thematic trainings were the most common for further training requests (45%). The second most further training requested was data processing (38%).

Figure 5.10: Percent Who Received Job-Specific Training and Required Further Training in That Same Topic



- Of respondents who had never received job-specific training of any kind, basic computer courses (29%), specialized thematic courses (26%), data analysis and report writing (17%), and census and survey planning (17%) were the most commonly requested courses.

Figure 5.11: Percent of Respondents Requiring Training by Training History and Training Type



5.6 Job-Specific Training Requested by Duty of Respondent

- Just 20 percent of respondents who performed managerial duties requested training in project management or leadership courses. This is in stark contrast to the 76 percent who indicated they had no previous training in this subject.
- About 13 to 15 percent of staff performing data collection duties requested training in census and/or survey planning compared to 23 to 26 percent who requested training in data analysis and report writing.
- For staff performing data tabulations, 0 to 11 percent requested basic computer training and 0 to 4 percent requested database management training.
- Staff performing data analysis and report writing were the group that was mostly likely to request training most in line with their job duties. Requests for data analysis and report writing training ranged from 17 to 26 percent for this group.
- Twenty percent of staff performing data processing requested training in CSPro and data processing.
- Twenty-two percent of staff performing statistical support requested training in basic computer skills with particular emphasis on using Excel.
- One-third of respondents performing GIS-related duties requested training in GIS.
- One-third of respondents performing computer programming and/or hardware maintenance requested training in this field.

Table 5.2: Percent of Job-Specific Training Courses Requested by Duty Type*

Duties	Training Requested										
	Leadership/Project management	Census/Survey planning	Data analysis & report writing	Specialized/Thematic	Job-specific attachments	Database management	Data processing	Basic computer skills	GIS	Computer prog./Web design	Other
Managerial *(N=41)*	19.5	14.6	19.5	26.8	9.8	0.0	4.9	2.4	2.4	4.9	0.0
Demographic collection *(N=24)*	4.2	12.5	37.5	16.7	8.3	4.2	12.5	4.2	8.3	8.3	4.2
Economic collection *(N=39)*	0.0	15.4	23.1	41.0	5.1	5.1	0.0	15.4	5.1	2.6	2.6
Unspecified collection *(N=33)*	3.0	15.2	24.2	27.3	0.0	0.0	15.2	3.0	9.1	0.0	0.0
Demographic tabulation *(N=27)*	3.7	14.8	37.0	11.1	0.0	3.7	22.2	11.1	7.4	3.7	3.7
Economic tabulation *(N=72)*	2.8	18.1	23.6	36.1	2.8	2.8	6.9	11.1	4.2	4.2	1.4
Unspecified tabulation *(N=22)*	9.1	4.5	22.7	27.3	0.0	0.0	13.6	0.0	9.1	4.5	0.0
Dem. analysis & report writing *(N=19)*	0.0	0.0	26.3	10.5	0.0	5.3	21.1	10.5	5.3	5.3	5.3
Econ. analysis & report writing *(N=19)*	1.8	15.8	26.3	40.4	3.5	3.5	7.0	14.0	1.8	3.5	0.0
Unspecified analysis & report writing *(N=23)*	4.3	8.7	17.4	26.1	0.0	0.0	8.7	0.0	13.0	13.0	0.0
Data processing and CSPro *(N=5)*	0.0	0.0	20.0	0.0	0.0	0.0	20.0	20.0	20.0	0.0	0.0
Statistical support *(N=63)*	3.2	7.9	11.1	20.6	0.0	0.0	7.9	22.2	0.0	3.2	7.9
GIS *(N=12)*	0.0	0.0	16.7	8.3	0.0	16.7	16.7	25.0	33.3	16.7	0.0
Computer programming/hardware *(N=12)*	8.3	8.3	0.0	16.7	0.0	8.3	8.3	8.3	8.3	33.3	0.0
Maintains website *(N=2)*	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0
Unspecified demographic *(N=8)*	0.0	12.5	12.5	25.0	0.0	0.0	12.5	12.5	0.0	0.0	12.5
Unspecified economic *(N=8)*	0.0	25.0	12.5	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0

*This refers to respondents' statements of their principal job duties. Note: Categories are not mutually exclusive.

6 Statistical Training

- Respondents were asked about any other general statistical training they may have received. Sixty-one percent of respondents indicated having taken at least 1 statistical training course.
- On average, respondents took 2.3 statistical training courses. The median number of statistical trainings per respondent was 1. Eight respondents (4%) had 10 or more.

Table 6.1: Overview of Statistical Training Courses Taken

Mean	2.3
Median	1.0
Minimum	0.0
Maximum	17.0
Number of respondents who had more than 10 statistical training courses	8
Percent of respondents who had at least 1 statistical training course	60.7%

6.1 Statistical Training by Course Topic

- Ten percent or more of respondents took the following statistical trainings: Data analysis and report writing (24%), census and survey planning (17%), SIAP 6 month Official Statistics Course (16%), data processing (14%), national accounts and/or balance of payments (12%), and the SPC 3 week General Statistics Course (10%).

Table 6.2: Percent of Staff Who Had Statistical Trainings by Training Topic

Training Topic	Percent
Data analysis and report writing	23.7
Census/Survey planning	16.5
SIAP 6 mo. official course	16.1
Data processing (ex: CSPro/SPSS)	14.3
National Accounts &/or Balance of payments	12.1
SPC 3 week general statistics	10.3
Basic computer skills (Ex: MS Office/Excel)	9.4
Demographic	9.4
Social development	7.6
Other economic practice	7.6
Statistical Leadership	7.1
General statistical	7.1
GIS	5.4
Computer programming/web design	4.5
Socio-Economic	3.6
Prices	3.6
Database	3.1
Other economic theory	3.1
Attachment	1.8
Other	7.6

N=224

- On average, respondents received their first statistical training 11 years prior in 2000. The year of first statistical training taken ranged from 30 years ago in 1981, to the current year 2011.
- The results for the most recent statistical training course taken were similar. On average, the most recent course taken was 5 years ago in 2006. The range for the most recent course

taken was wide, ranging from 1981 to 2011. Fourteen out of 126 respondents (11%) indicated that their most recent year of training was more than 10 years ago (data not shown).

- About one-third of respondents (34%) indicated that their first and last training occurred in the same year.

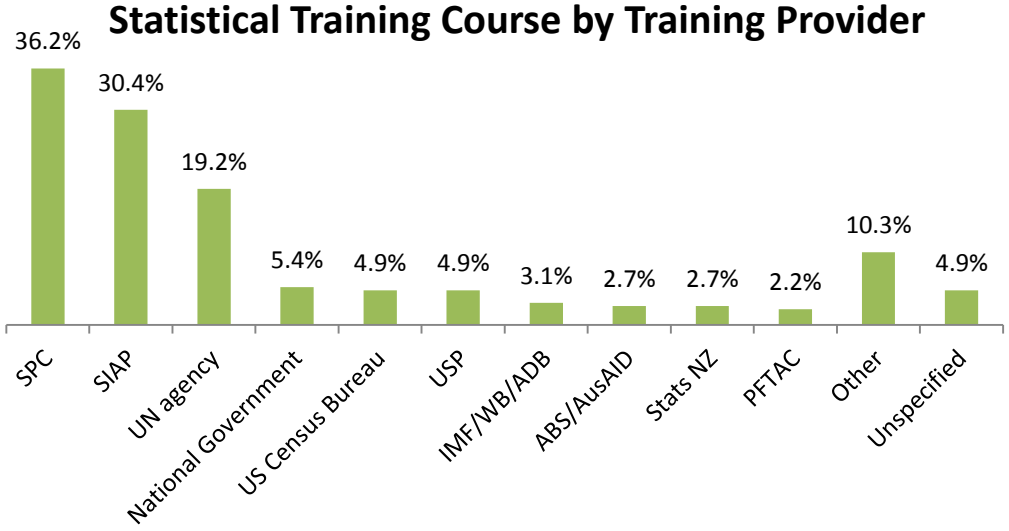
Table 6.3: Summary of Statistical Training Courses

	Mean	Median	Minimum	Maximum
Year of first statistical training course	2000	2002	1981	2011
Year of most recent statistical training course	2006	2009	1981	2011
Percent who's first and last statistical training occurred in same year	33.6			

6.2 Statistical Training by Course Provider

- The 3 most common providers of statistical training were SPC (36%), SIAP (30%), and other UN agencies (19%).
- Five percent or less of respondents received a statistical training from their National Governments, the U.S. Census Bureau, the University if the South Pacific, the IMF/World Bank/Asian Development Bank, the Australian Bureau of Statistics/AusAID, Statistics New Zealand, and PFTAC.

Figure 6.1: Percent of Staff Who Took a Statistical Training Course by Training Provider



7 Other Skills

Respondents were asked about any other skills they possessed that might be useful in their current position. They were asked to identity from a list of 10 different skills whether they possessed that particular skill and if so, how they obtained it, and how long they have had it. All respondents were asked if they needed further training in each skill regardless of whether they possessed the skill or not.

7.1 Percent of Respondents with Other Skills and Duration of Skill Possession

- More than half of all respondents indicated having 4 of the following skills: spread sheets (78%), data analysis (64%), report writing (64%), and data bases (51%).
- On the IT side of skills, 46 percent of respondents indicated they had data processing skills, 24 percent said they had GIS skills, 14 percent had web publishing skills, and 11 percent had server/networking/IT-related skills. These categories also had some of the highest non-response rate for this section of the questionnaire.
- Looking at management skills, 40 percent of respondents indicated they had accounting skills while 22 percent said they had project management skills.

- IT-related skills tended to be possessed for a shorter length of time than non IT-related skills. (Web publishing 4 years, server/networking 5 years, GIS 5 years compared to spread sheets 10 years, data analysis 8 years, report writing 9 years)
- On average, respondents possessed each skill for about 7 years (data not shown).
- With the exception of web publishing skills, there was quite a large range in the length of time respondents possessed each skill, ranging from 0 to up to 33 years for data analysis, report writing, and accounting.

Table 7.1: Number and Percent with Other Skills and Number of Years with Each Skill

Other Skills	Number and Percent with Other Skills								If Yes, Length of time with these skills (in years)			
	Yes		No		No Response		Total		Mean	Median	Min	Max
	N	*Percent*	*N*	*Percent*	*N*	*Percent*	*N*	*Percent*				
Has spread sheet skills	174	77.7	20	8.9	30	13.4	224	100.0	9.5	10.0	0.04	30.0
Has data analysis skills	144	64.3	47	21.0	33	14.7	224	100.0	8.1	6.0	0.04	33.0
Has report writing skills	144	64.3	46	20.5	34	15.2	224	100.0	8.5	7.0	0.02	33.0
Has database skills	115	51.3	65	29.0	44	19.6	224	100.0	8.0	8.0	0.04	29.0
Has data processing skills	104	46.4	68	30.4	52	23.2	224	100.0	7.5	6.5	0.04	26.0
Has accounting skills	89	39.7	81	36.2	54	24.1	224	100.0	10.2	10.0	0.25	33.0
Has GIS skills	54	24.1	102	45.5	68	30.4	224	100.0	5.4	5.0	0.04	15.0
Has project management skills	49	21.9	94	42.0	81	36.2	224	100.0	7.4	7.0	0.02	25.0
Has web publishing skills	31	13.8	110	49.1	83	37.1	224	100.0	4.4	5.0	0.02	8.0
Has server/networking IT skills	25	11.2	116	51.8	83	37.1	224	100.0	4.5	4.0	0.01	15.0

7.2 How and Where Other Skills Were Obtained

- Forty-two percent of respondents indicated they had received data analysis training from a formal provider. Additionally, 38 percent received formal training in report writing, as did 25 percent in spread sheets, 19 percent in data processing and 18 percent in databases.
- A larger percentage of respondents claimed they learned data analysis, report writing, GIS, project management, and web publishing through a formal training compared to being self taught or taught on the job.

Table 7.2: Frequency and Percent of Skills Self-Taught, Taught by Colleagues, and Formally Taught

Other Skills	Self-taught		Taught by colleagues/ at work/ on-the-job		Formal training/ workshop	
	N	*Percent*	*N*	*Percent*	*N*	*Percent*
Has data analysis skills	34	15.2	65	29.0	93	41.5
Has report writing skills	38	17.0	64	28.6	87	38.8
Has spread sheet skills	86	38.4	103	46.0	56	25.0
Has data processing skills	30	13.4	59	26.3	43	19.2
Has database skills	40	17.9	57	25.4	40	17.9
Has accounting skills	30	13.4	41	18.3	39	17.4
Has GIS skills	19	8.5	17	7.6	34	15.2
Has project management skills	12	5.4	13	5.8	31	13.8
Has web publishing skills	9	4.0	9	4.0	18	8.0
Has server/networking IT skills	17	7.6	13	5.8	5	2.2

Note: Categories are not mutually exclusive.

- With the exception of accounting, SPC took the largest share of all the other skills trainings given by formal providers. USP accounted for the largest share of formal accounting trainings.

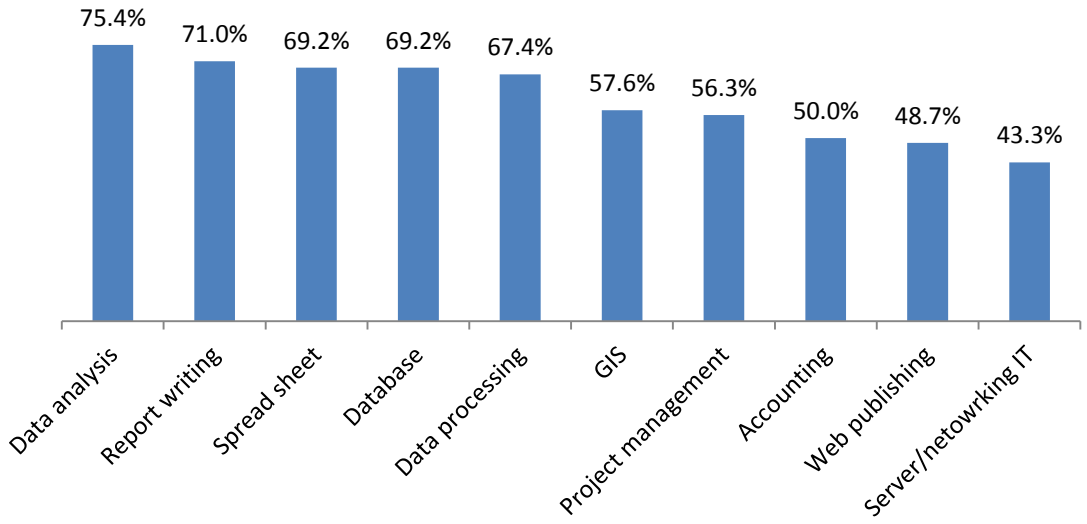
Table 7.3: Percent Distribution of Formal Providers for Respondents Who Were Formally Taught Other Skills

Other Skills	Frequency of respondents formally taught	Percent Distribution of Formal Training Providers												
		National Gov. Agency	SPC	SIAP	ABS/AusAID	Stats NZ	USCB/IPC	UN Agencies	USP	PFTAC	IMF/WB/ADB	Other	Unspecified/No response	Total
Has data analysis skills	93	0.0	30.1	16.1	0.0	1.1	1.1	1.1	4.3	0.0	0.0	7.5	38.7	100.0
Has report writing skills	87	0.0	35.6	9.2	0.0	0.0	1.1	3.4	4.6	0.0	0.0	11.5	34.5	100.0
Has spread sheet skills	56	0.0	19.6	16.1	0.0	0.0	0.0	0.0	3.6	0.0	0.0	16.1	44.6	100.0
Has data processing skills	43	2.3	20.9	11.6	0.0	0.0	9.3	0.0	4.7	0.0	0.0	7.0	44.2	100.0
Has database skills	40	5.0	12.5	5.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	22.5	45.0	100.0
Has accounting skills	39	5.1	5.1	2.6	0.0	0.0	0.0	0.0	23.1	2.6	0.0	20.5	41.0	100.0
Has GIS skills	34	0.0	32.4	0.0	0.0	0.0	0.0	0.0	17.6	0.0	0.0	8.8	41.2	100.0
Has project management skills	31	0.0	38.7	3.2	0.0	3.2	0.0	0.0	9.7	0.0	3.2	12.9	29.0	100.0
Has web publishing skills	18	0.0	44.4	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	33.3	100.0
Has server/networking IT skills	5	0.0	20.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	20.0	40.0	100.0

7.3 Need for Other Skills Trainings

- Respondents were asked if they needed further training in any of the skills listed. In all but 2 skills, 50 percent or more of respondents indicated a need for further training. This high level of need should be interpreted with caution as it does not match the job-specific training requests obtained in the Section 4.
- For example, 75 percent of respondents indicated a need for further training in data analysis and 71 percent indicated a need for report writing. This is in contrast to 18 percent of respondents who requested job-specific training in data analysis and report writing.

Figure 7.1: Percent of Respondents Who Indicated a Need for Further Training in Each Skill Type



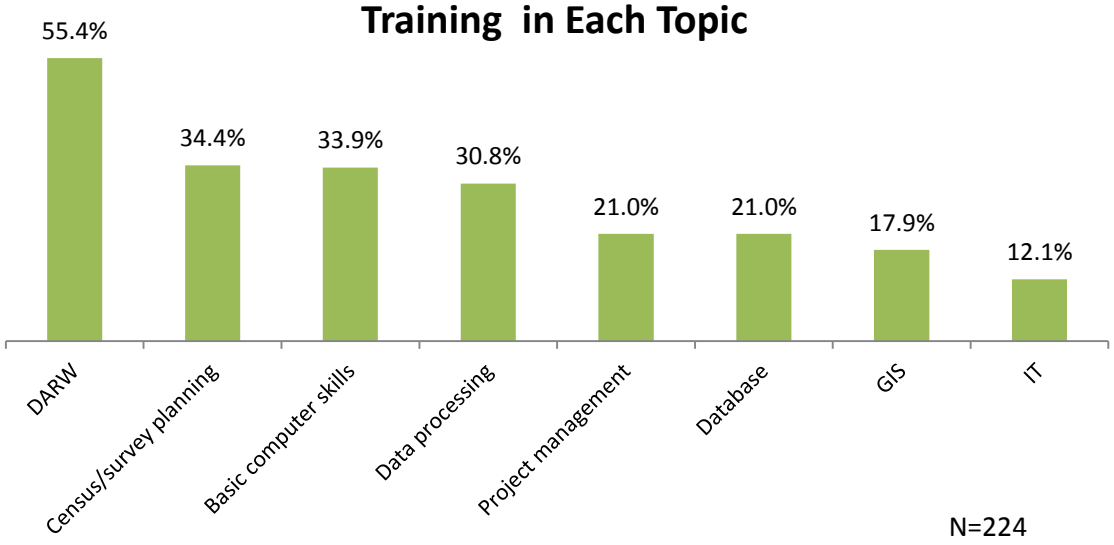
- For all skills listed, 70 percent or more of respondents who already possessed each individual skill indicated a need for further training in that same skill.
- Eighty-one percent of respondents who said they had data analysis skills requested further training in data analysis. Likewise, 82 percent of all the respondents who said they had data processing skills indicated a need for further training in data processing.
- Of those who did not possess an individual skills, the perceived need for training varied anywhere from 56 percent for accounting to 92 percent for data analysis.

8 Summary of Training Courses

- This section looks at formal trainings respondents have taken cumulative including job-specific trainings, statistical trainings, and other trainings. (This corresponds to Part A, B, and C of the questionnaire.)
- Fifty five percent of respondents indicated they had received a formal training in data analysis and report writing.
- Thirty-four percent of respondents indicated they had received a formal training in both census/survey planning and basic computer skills.

- Thirty-one percent of respondents indicated they had received a formal training in data processing.
- Slightly more than one in five respondents indicated they had a formal training in both project management and databases.
- Eighteen percent of respondents indicated they had a formal training in GIS and 12 percent in other IT-related topics such as web design and hardware or server maintenance.

Figure 8.1: Percent of Staff Who Received Formal Training in Each Topic



- When examining courses taken cumulatively, almost half (49%) of staff performing managerial duties received formal training in project management and/or leadership.
- Of those who performed data collection, formal trainings in census or survey planning ranged from 33 to 42 percent.
- Formal training in database management was relatively low (22 to 26%) for staff performing tabulations.
- Staff performing data analysis and report writing had one of the highest levels of complimentary formal training. Fifty-one to 74 percent of these staff indicated they received formal training in this area.
- Twenty-nine percent of staff who performed statistical support received formal training in basic computer skills and spread sheets.

Table 8.1: Percent of Formal Training Courses Taken by Duty Type*

Duties	Training Taken							
	Leadership/Project management	Census/Survey planning	Database management	Data analysis & report writing	Data processing	Basic computer skills	GIS	Computer prog./Web design
Managerial *(N=41)*	48.8	63.4	34.1	73.2	43.9	39.0	29.3	12.2
Demographic collection *(N=24)*	20.8	33.3	29.2	62.5	33.3	41.7	12.5	8.3
Economic collection *(N=39)*	17.9	41.0	20.5	64.1	33.3	33.3	15.4	15.4
Unspecified collection *(N=33)*	18.2	42.4	33.3	69.7	39.4	30.3	30.3	9.1
Demographic tabulation *(N=27)*	22.2	25.9	25.9	66.7	51.9	55.6	22.2	18.5
Economic tabulation *(N=72)*	19.4	36.1	22.2	54.2	36.1	33.3	12.5	8.3
Unspecified tabulation *(N=22)*	31.8	40.9	22.7	77.3	45.5	40.9	40.9	27.3
Dem. analysis & report writing *(N=19)*	15.8	26.3	10.5	63.2	47.4	31.6	21.1	21.1
Econ. analysis & report writing *(N=19)*	22.8	35.1	19.3	50.9	31.6	31.6	10.5	8.8
Unspecified analysis & report writing *(N=23)*	21.7	34.8	17.4	73.9	39.1	30.4	21.7	21.7
Data processing and CSPro *(N=5)*	0.0	20.0	40.0	40.0	60.0	20.0	40.0	20.0
Statistical support *(N=63)*	9.5	25.4	4.8	30.2	12.7	28.6	4.8	0.0
GIS *(N=12)*	16.7	41.7	33.3	58.3	41.7	58.3	50.0	16.7
Computer programming/hardware *(N=12)*	16.7	25.0	33.3	58.3	33.3	41.7	25.0	33.3
Maintains website *(N=2)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Unspecified demographic *(N=8)*	25.0	12.5	37.5	62.5	25.0	25.0	12.5	25.0
Unspecified economic *(N=8)*	25.0	25.0	37.5	50.0	50.0	12.5	37.5	50.0

*This refers to respondents' statements of their principal job duties. Note: Categories are not mutually exclusive.

9 Case Study

- Two different job duties to examine in further detail.

9.1 Case Study of Staff Performing Managerial Duties

- The training history and training requests of respondents who listed managing staff as one of their principal job duties were examined. In the following examples, project management refers to both project management and/or general leadership training.
- There were 41 staff (18% of all respondents) who performed managerial duties. Overall, 8 managerial staff (20%) requested project management training.
- Of the 41 managerial staff, only 10 (24%) indicated having received job-specific project management training.

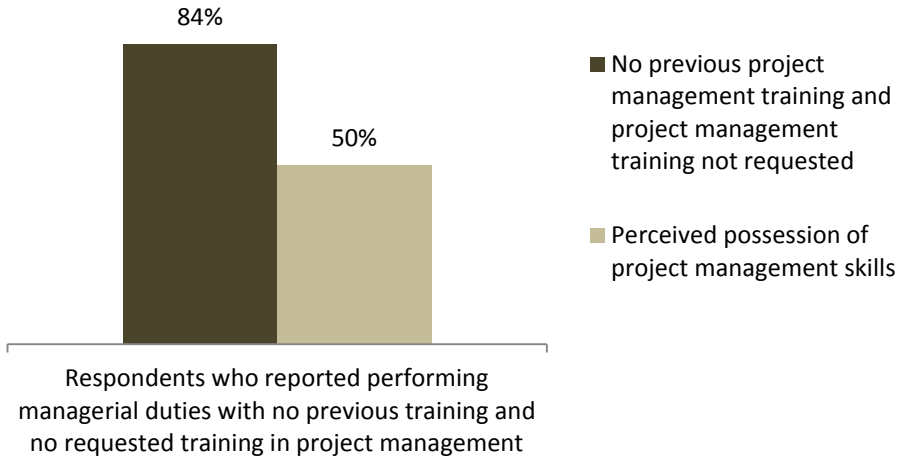
- Of the 31 managerial staff who had never received job-specific project management training, only 5 (16%) indicated a need for such training.
- Of the 10 respondents who had received job-specific project management training, 3 (30%) requested further training in this area.

Table 9.1: Proportion Performing Managerial Duties Who Received Project Management Training by Proportion Who Requested Project Management Training

			Requested project management training		
			Yes	No	Total
Had job-specific project management training	Yes	N	3	7	10
		%	*(30%)*	*(70%)*	*(100%)*
	No	N	5	26	31
		%	*(16%)*	*(84%)*	*(100%)*
	Total	N	8	33	41
		%	*(20%)*	*(80%)*	*(100%)*

- Of the managerial staff who had no previous project management training and did not request training in this area, 50 percent indicated in the Part C "Other Skills" section of the questionnaire that they had project management skills.
- There is quite a gap in project management skills with 50 percent of those never receiving training and not requesting training devoid of project management skills.

Figure 9.1: Gap Analysis of Staff Performing Managerial Duties

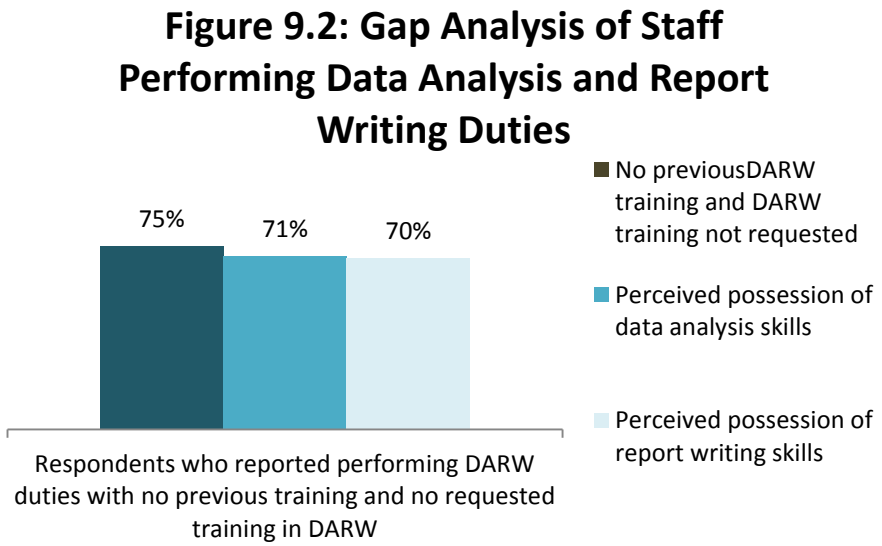


9.2 Case Study of Staff Performing Data Analysis and Report Writing Duties

- The training history and training requests of respondents who listed data analysis and report writing as one of their major job duties were examined in more detail. This included staff who performed demographic, economic, or unspecified data analysis and report writing.
- There were 93 staff (42% of all respondents) who performed data analysis and report writing duties. Overall, 23 (25%) staff member performing data analysis and report writing requested training in this area.
- Only 18 (19%) received job-specific training in data analysis and report writing.
- Of the 75 staff who had never received job-specific data analysis and report writing training, only one-quarter requested training in this topic.
- Of the 18 respondents who had received job-specific data analysis and report writing training, only 4 (22%) requested further training in this area.

Table 9.2: Proportion Performing Data Analysis and Report Writing Who Received Training by Proportion Who Requested Training

			Requested data analysis and report writing training		
			Yes	No	Total
Had job-specific data analysis and report writing training	Yes	N	4	14	18
		%	*(22%)*	*(78%)*	*(100%)*
	No	N	19	56	75
		%	*(25%)*	*(75%)*	*(100%)*
	Total	N	23	70	93
		%	*(25%)*	*(75%)*	*(100%)*



- About 20 percent of staff who did not perform data analysis and report writing indicated they received job-specific training in this area.

- Fourteen percent of staff who did not perform data analysis and report writing requested training in that area.
- Of the staff who had not received training in this area, 90 did not request training.

Table 9.3: Proportion Not Performing Data Analysis and Report Writing Who Received Training by Proportion Who Requested Training

			Requested data analysis and report writing training		
			Yes	No	Total
Had job-specific data analysis and report writing training	Yes	N	8	18	26
		%	*(31%)*	*(69%)*	*(100%)*
	No	N	10	95	105
		%	*(10%)*	*(90%)*	*(100%)*
	Total	N	18	113	131
		%	*(14%)*	*(86%)*	*(100%)*

- When examining the number of countries with staff who indicated they had job-specific training in data analysis and report writing, 12 countries (71%) of countries had received such training.

Table 9.4: Number of Staff Who Had Job-Specific Training in Data Analysis and Report Writing by Country

Country	Number of Staff
Fiji	11
Tonga	6
Vanuatu	5
FSM	4
Guam	4
Solomon Islands	4
American Samoa	3
Kiribati	2
Tuvalu	2
CNMI	1
Cook Islands	1
RMI	1
Nauru	0
Palau	0
Samoa	0
Tokelau	0
Niue	0
Total	44

Appendix

Table A-1: Division Recodes

New division code	Respondent-provided division codes
Economic Divisions	ECONOMIC
	TRADE/ EXTERNAL TRADE
	BUSINESS AND ECONOMIC STATISTICS PROGRAM
	FINANCE
Social Demographic Divisions	SOCIAL STATISTICS
	DEMOGRAPHY
	CENSUS & SURVEYS/EPPSO
	TOURISM & MIGRATION/OCCUPANCY STATISTICS
	SOCIO-ECONOMIC PLANNING
	BIRTHS DEATHS AND MARRIAGES
Management and Planning	CORPORATE /GOVERNMENT/STRATEGIC LEADERSHIP + COORDINATION UNIT/LEADERSHIP AND ADMINISTRATION
	COORDINATION & INFORMATION SYSTEM
	COORDINATION & RESEARCH
	STRATEGIC PLANNING & RESEARCH
	PLANNING INFORMATION SYSTEM
IT/Data Information/GIS	STATISTICAL DATA & INFORMATION MANAGEMENT/PUBLICATIONS
	GIS UNIT
	IT/DATA PROCESSING UNIT
	LAND USE PLANNING/COASTAL MANAGEMENT
General Administrative	ADMINISTRATION
	NATIONAL STATISTICS OFFICE
	GENERAL STATISTICS DIVISION/CENTRAL STATISTICS OFFICE

Table A-2: Job Title Category Recodes

New job title category	Respondent-provided job title
Management	GOVERNMENT STATISTICIAN/CHIEF PLANNER/ACTING CHIEF/STAT MANAGER/DIRECTOR/NATIONAL STATISTICIAN
	DEPUTY GOVERNMENT STATISTICIAN/ACEO/DEPUTY SECRETARY
Senior Professional Staff	PRINCIPAL STATISTICIAN/CHIEF ECONOMIST/DIRECTOR OF DIVISION/CHIEF STATISTICAL UNIT/PRINCIPAL OFFICER/DEPUTY ASSISTANT /BRANCH MANAGER/DIRECTOR/CHIEF TRADE OFFICER/EXECUTIVE ADMINISTRATIVE MANAGER/GIS MANAGER/CHIEF PROGRAMMER/IT MANAGER/DEPUTY REGISTRAR
	SENIOR STATISTICIAN/SENIOR STATISTICAL OFFICER/SENIOR REGISTRY OFFICER/SENIOR PLANNING ANALYST
Professional Staff	STATISTICIAN/STATISTICAL OFFICER/PLANNER
	ASSISTANT STATISTICIAN/ASSISTANT STATISTICAL OFFICER/SENIOR STATISTICAL ASSISTANT/FIELD SUPERINTENDENT
	INFORMATION SYSTEM OFFICER/DISSEMINATION OFFICER
	STATISTICAL SPECIALIST/COMPUTER SPECIALIST/STAT ANALYST/PLANNING ANALYST/TRADE/NATIONAL ACCOUNTS COMPILER/BOP/EDUCATION/DATA PROCESSING/CARTOGRAPHER/COMPUTER PROGRAMMER/SYSTEM ANALYST/GIS OFFICER/INFORMATION SYSTEM OFFICER/IT OFFICER
	RESEARCH OFFICER/ STAT INVESTIGATOR
Statistical support/Jr. Officers	STATISTICAL CLERK/CLERICAL OFFICER/ CLERK/ACCOUNTS OFFICER
	DATA ENTRY OPERATOR/CLERK/CENSUS OPERATOR/DATA CONTROL CLERK/KEYPUNCH OPERATOR/ASSISTANT COMPUTER PROGRAMMER/COMPUTER ASSISTANT/COMPUTER OPERATOR/COMPILER/REGISTRY OFFICER/RECORDS MANAGEMENT OFFICER
	STATISTICS TRAINEE
	PLANNING TECHNICIAN/ TECHNICIAN/STATISTICAL TECHNICIAN
	GRADUATE PROGRAM OFFICER
Administrative support	ADMIN SUPPORT/ EXECUTIVE ASSISTANT/SECRETARY/RECEPTIONIST/CASHIER/OFFICE ASSISTANT

Table A-3: Educational Measurement Comparison Table

Australia	US Grade	Other	**Year**
Form 2	7		**8**
Form 3	8		**9**
Form 4	9		**10**
Form 5	10	NZ School Certificate/SC	**11**
Form 6	11		**12**
Form 7	12	NCEA Level 3/PSSC 13/NZUE/Foundation level	**13**

PSSC Activity: Skills audit of national and territorial statistical agencies, 2011

Skills audit of NSO staff (Ten-Year Pacific Statistics Strategy, Objective 3, Output 3-1 Activity)

Objective: *Skill audit undertaken by Heads of NSO and supported by SPC and PFTAC, to establish a baseline for development of long-term training and professional development strategy*
Implementation: Heads of Pacific Island NSOs, supported by SPC and PFTAC
Time: May – June 2011 (6 weeks)
Preparation of Report: July-August 2011, SPC, for presentation at 3rd PSSC meeting in October 2011, which will review findings/recommendations and decide on next steps.

Country/Territory: _____

Name of staff: _____

Age: [___] Sex: [m] [f] Years working with your office: [___]

Division in your office: _____

Job title: _____

Principal duties: _____

_____

[A] Training history – current Job-specific

1. have you received specific training to help you perform these duties?

   [ ] **Yes** (specify in-house training, by whom, how long, when? External training provider – SIAP course, USP, SPC ABS, Statistics NZ … mention all course relevant to your current duties)

   a. ……..
   b. ……..
   c. ……..

   Do you feel this training has been sufficient for you to do a competent job?
   [ ] Yes
   [ ] No => what other training would you require? …….

   [ ] No: I never received any specific training to help me do this particular job

   ⇨ what type of training would you require? …….
   …….

PSSC Activity: Skills audit of national and territorial statistical agencies, 2011

(B) Training history – general statistical training

2. What other statistical training have you had in the past? Please be specific and mention all courses you have attended since working at the NSO (this refers to statistical training courses, not general "workshops"). If more than 5, please feel free to extend this table.

Name of Course	Organization	Year	Length of course
a.			
b.			
c.			
d.			
e.			

(C) Training history – other skills training

3. Do you have any other skills that are **useful in your current position**, for example knowledge of accounting principles, data analysis and report writing, spreadsheet and database skills?
   If yes: please (1+2) identify the skills you have (*if you have others than those listed below, please insert them*) and (3) indicate how you acquired/learned these skills, (4) how long you have had these skills; and (5) if you think you need further training in these areas to do your job more effectively.
   If no: please write "No" in column 2, then ***skip to column 5***, and indicate if you think you need training in these or other areas, to become more effective/efficient in your current work.

(1)	(2)	(3)	(4)	(5)
Description of Skill	**Yes/No** If no => 5	**How obtained** 1=self-taught, 2=taught by colleague/at work/ on-the-job 3= formal training/workshop (please list training provider, including SIAP, SPC, USP, UN)	**How long have you had these skills? (years)**	**Need for (further) training in these skills, in Other skills (yes/no)**
1. Accounting				
2. Data analysis				
3. Report writing				
4. Work with spread sheets (which software: _____?)				
5. Work with databases (which software: _____?)				
6. Data Processing (which software: _____?)				
7. GIS skills (which software: _____?)				
OTHER SKILLS				
8. server/networking (IT)				
9. web-publishing				
10. project management				
11.				
12.				
13.				
14.				

PSSC Activity: Skills audit of national and territorial statistical agencies, 2011

(D) General education background

4. Highest level of secondary education completed: _____ (completed year)

5. Highest level of post-secondary education **attended?**
[ ] Polytech (TAFE)
[ ] Community College
[ ] University

Field of study: _____

6. Highest level of post-secondary education **completed?**
[ ] Polytech (TAFE) [ ] Community College
[ ] University

Field of study: master in statistics and data analysis_____

7. Highest level of post-secondary **qualifications achieved**?
[ ] certificate
[ ] diploma
[ ] degree
[ ] post-graduate degree [ ] Masters [ ] PhD

Field of study: _____

Note: if more than one degrees/courses of study pursued, feel free to cut and paste and insert additional information

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Thank you very much for completing this form.

Please return to: Ms Sandra Gianini,
Programme Administrator, Statistics for Development Programme
sandraG@spc.int