REPORT ON SEVEN OCCUPATION PROFILES AND TECHINCAL RECOMMENDATION ON TRAINING PROGRAMMES

Client	:	FSM National Government Represented by the National Department of Education
Contract Ref No.	:	FM-NDOE-410231-CS-CD
Project Title	:	FSM Skills and Employability Enhancement Project (P176965)
Source of funding	:	IDA-D9870
Contract Name	:	Occupational Profile Development
Period of contract	:	25 Mar – 31 Aug 2024
Prepared on	:	26 Aug 2024
Prepared by	:	Loh Ley Ley

A. BACKGROUND

The National Department of Education (NDOE) of the Federated States of Micronesia (FSM) received World Bank support to strengthen its Career and Technical Education (CTE) institutions and employment services through the FSM Skills and Employability Enhancement (SEE) Project.

2. The FSM SEE project recognizes the importance of equipping individuals, particularly disadvantaged groups, with the necessary skills and knowledge to succeed in the job market. By expanding the reach and improving the quality of CTE programs, the project seeks to create a more inclusive and equitable society, empowering individuals to secure gainful employment and contribute to the country's economic development.

B. OBJECTIVE OF THE ASSIGNMENT

3. This assignment serves to support CTE counterparts (NDOE, SDOEs, Chambers of Commerce, industry representatives, CTE teachers, students) in determining occupations and establishing occupational profiles within the identified trades/sectors. The identified occupations will serve as the foundation for creating training curricula for the FSM Skills Academy, as well as curriculum frameworks for CTE providers.

4. To meet this objective, the Consultant will:

- Conduct a rapid desk review of documents pertaining to FSM (e.g., relevant government policy – education, trade, economic, etc., careers information, advice, and guidance) and gather additional information from state-level stakeholders through state visits. This review aims to complement the findings of a recently completed qualitative labor market assessment (which will be provided to the Expert prior to the start of the assignment).

- Design and lead a participatory consultation workshop scheduled for June 2024. The primary objective of this workshop is to identify growing sectors and occupations based on the insights from the recently completed labor market assessment, the data collection and discussions during the workshop.

- Subsequently use the outputs of the workshop to develop occupational profiles within the identified trades/sectors.

C. SCOPE OF WORK AND DESCRIPTION OF TASKS

5. This assignment comprises three core tasks:

- **Desk Review & state-level data collection:** Conduct a rapid desk review of documents relevant to FSM to complement and enhance the insights gained from the labor market assessment. Collect complementary information from state-level stakeholders to initially identify up to 10 occupations. Lead online consultations to gather input for the proposed 10 occupations and ensure a consensus-building process.

- **A Consultation workshop:** Develop a workshop agenda and prepare presentations/materials in collaboration with the Project Implementation Unit and lead the workshop in Pohnpei.

- **Occupational profiles development:** Formulate occupational profiles based on the discussions and agreements reached during the workshop. The anticipated number of selected occupations is seven. Specific details will be determined in consultation with the Project Implementation Unit.

6. This report serves to detail the outcomes of the job profile consultation workshop and the selection of seven occupational profiles, six from IT and one from creative industries, as well as technical recommendations on how training programs could be structured.

SUMMARY OF FINDINGS FROM LITERATURE REVIEW, DATA ANALYSIS AND INITIAL RECOMMENDATIONS FROM REPORT 1

7. Phase 1 of the assignment centered around a fact-finding trip to Yap, Chuuk, Kosrae and Pohnpei from 1 May to 22 May 2024. The trip allowed direct interactions and immediate observations of the general sentiments and challenges on state of industry, as well as vocational training set up in the various states. Through the engagement with Government officials; National and State Departments of Resources and Development and Departments of Education; management, academic and vocational teachers from the key public high schools, namely, Yap High School, Chuuk High School, Kosrae High School and Pohnpei Island Central High School (PICS); student and industry representatives, honest and direct discussions were carried out, touching across a multitude of issues including, but not limited to, outmigration issues; over reliance of foreign labor; motivation and work ethnics of the local workforce; societal and cultural norms that impeded workforce development; resource constraints, lack of robust and comprehensive economic planning, amongst others. Key observations and recurring sentiments from these conversations include:

a) Inertia and lack of motivation were commonly cited among the various interviews as reasons for slow pace of progress and development, be it in self, organization or state.
b) In addition to lack of a relevant skillset, concerns about work ethics and job responsibility were often mentioned regarding the local workforce.
c) Communication among the private sector, government and vocational schools was also scant and inadequate.
d) Vocational education and training options in practice were limited and fragmented and there was a general lack of strategic direction and coordination in the vocational education and training skills Development sector.
e) Mismatch between the preferences of industry stakeholders and aspirations of the students, with the former looking at traditional tradesmen while the latter desired more technologically based and newly emerging occupations.

Initial list of job occupations and soft skills proposed

8. Taking into consideration
a) FSM's national industrial focus on energy, agriculture, tourism, and marine/fishery;
b) Global occupational demand where the trend clearly highlight the push towards digital related jobs;
c) Insights from fact finding trip conducted from 1 to 22 May 2024 to all the four states,

An initial list of 36 vocation occupations (see **Diagram 1**) spanning across eight sectors of construction, tourism, automotive, information technology, energy, agriculture, creative industry and public service was unveiled and proposed to the Occupation Selection workshop held from June 24 to 28, 2024 in Pohnpei, FSM.

Diagram 1: Initial list of 36 vocation occupations resulting from fact finding trip conducted from 1 – 22 May 2024

9. Additionally, a total of 12 soft skills (see **Table 1**) were also identified as universal soft skills that were relevant for all job occupations identified for FSM.

Table 1: Initial list of universal soft skills

A/ Think Critically (3)	
Critical Thinking	Make a decision and choose a course of action from several alternatives available using structured thinking process in order to solve an urgent issue or achieve intended goals.
Learning Agility	Exercise flexibility in behaviors or approaches to respond to changes and evolving contexts. Be open to learning new skills to support self-development and career growth.
Problem Solving	Identify problems at the early stages, generate feasible and efficient solutions to solve problems, and convert challenges to new opportunities.

B/ Communicating with Others (4)	
Conflict Resolution	Resolve conflicts by evaluating and implementing resolution approaches, analyzing mediation outcomes and finding satisfactory solutions for involved parties.

Collaboration	Manage people relationships and work together by sharing responsibilities and distributing workload effectively with others to achieve goals.
Communication	Convey and exchange thoughts, ideas and information effectively through various mediums and approaches, such as by applying active listening skills.
Customer Service	Anticipate customer needs and provide quality customer services to create a positive customer experience. Build and establish customer service standards and implementing corrective actions to improve service delivery gaps.

C/ Business Orientation (5)	
Digital Literacy	Use IT tools, equipment and software to create, evaluate and share information digitally with others. Collaborate and communicate with others using digital tools to accomplish tasks such as video calls and messaging apps.
Financial Literacy	Understand and apply financial concepts and principles to manage personal finances and make informed financial decisions. This includes the ability to interpret financial information, understand investment strategies, and evaluate the implications of financial actions on overall financial health.
Personal Leadership	Make the best decisions for oneself to achieve goals and objectives in the most effective way. Support an inclusive work environment that cultivates workplace relationships and teamwork, and fosters the personal growth of others.
Marketing	Develop, execute and evaluate physical and digital marketing strategies and campaigns to develop brand presence and deliver value proposition through the use of various digital marketing channels and platforms. Track customers' responses and update strategies in alignment with market developments for continuous customer engagement.
Entrepreneurship	Use innovative thinking and risk-taking abilities to identify business opportunities, develop new products or services, and create value in the market. This involves strategic planning, resource allocation, and leadership skills to drive business growth and success. Entrepreneurs need to be willing to navigate challenges and uncertainties in the business environment.

OCCUPATION SELECTION CONSULTATION WORKSHOP

10. The initial list of 36 job occupation profiles and 12 soft skills were presented in the Occupation Selection Workshop held in Pohnpei, FSM, from 24 – 28 June 2024. A total of 38 participants comprising representatives and curriculum specialists from National and State Departments of Education, High School Principals, Vice Principals

and Vocational teachers, Industries and Community Representatives attended the five-day intensive workshop, which included:

- Sharing of best practices from representatives from Singapore Institute of Technical Education, U.S. Department of Labor's American Job Centre, and Thames Business School from the Philippines, who shared their experiences and expertise on setting up vocational training centers, apprenticeship programs and country-level industry framework development;

- Sharing by Chuuk High School Vocational Teachers on their vocational survey;

- Discussions and conduct of SWOT analysis;

- Selection and confirmation of state level job occupations.

Please refer to **Table 2** below for the workshop agenda and **Annex A** for the workshop program.

Table 2: Agenda for Stakeholder Workshop on Occupation Selection, 24 – 28 June 2024

Day	Date	Overview of program
1	24/6	• Welcome address by H. Wayne Mendiola, Jr. Assistant Secretary, National Department of Education • Sharing: The Singapore's Institute of Technical Education experience by Mr Fabian Cheong, Deputy Director, South Asia, Middle East, Africa & Latin America, Finance & Admin, HR • Reflection
2	25/6	• Sharing: Apprenticeship in vocational training by Phyllis Topasna, Programme Coordinator III, Guam Department of Labor, American Job Centre • Reflection • Sharing: Skills Framework Development: The Philippines Experience by Leah Macatangay, Learning Director, Thames International School • Reflection • Sharing by Chuuk High School Vocational Teachers on their vocational survey • Unveiling the initial list of job occupations & heads up on the process for the next two days
3	26/6	• To determine list of occupations within the sector (list, prioritize, SWOT) • To determine list of occupations by individual (list, prioritize, SWOT)
4	27/6	• To determine list of occupations within the state (list, priorities, SWOT) – IT and Creative Industry

		• To determine list of occupations within the state (list, priorities, SWOT) – Construction, Tourism, Automotive, Energy, Agriculture, Public Service
5	28/6	• State to design job profiles description, tasks, skills and associated proficiencies based on the job occupations selected

Review of the list of job occupations

11. During the workshop, after further review, the participants expanded the list to 50 job occupations as part of the consultation process. This process was essential to ensure stakeholder ownership of the final outcome (see **Diagram 2**).

Diagram 2: Expanded list of 50 vocation occupations proposed by workshop participants

12. The participants were then asked to prioritize the list of job occupations for a) Information Technology and b) Creative industry (see **Diagram 3**), as well as select their priority sectors for their respective states. These industries were chosen for their potential to address issues of equity and access. Compared to other pre-selected industries, these fields are seen as providing more accessible opportunities for students with certain disabilities to acquire essential skills. Both programs will be piloted in all four schools, while other industries will be selected based on each school's specific needs and priorities. After intensive discussion, Yap prioritized Hospitality and power sectors, Chuuk prioritized nursing and construction, Kosrae prioritized automotive and general electronics, while Pohnpei prioritized agriculture. However, this does not mean schools are restricted to these programs alone. Rather, it highlights which programs will be introduced first in each state, with all curricula developed through the SEE project being made available to all four states. This approach was necessary to prevent all states from choosing the same industries, which could have resulted in a narrow focus on only a few fields. State-level data analysis indicated broader interest in

developing programs across various industries. This resulted in a total of 36 job occupations identified from the workshop (see **Diagram 4**).

Diagram 3: Vocational curriculum development prioritization (for IT and Creative)

S/No	Job Occupation	Yap	Chuuk	Kosrae	Pohnpei
1	IT3. IT Tech – Computer	X	X	X	X
2	IT5. Network Technician		X		X
3	IT1. IT Developer – Designer			X	
4	IT2. IT Developer - Programmer		X		
5	IT4: IT Tech – Mobile	X			
6	IT6. Cyber Security Technician			X	

S/No	Job Occupation	Yap	Chuuk	Kosrae	Pohnpei
1	CI1: Graphics Designer			X	X
2	CI3: Photographer	X			X
3	CI6: Social media content creator	X		X	
4	CI5: Interactive Media Designer		X		X
5	CI2: Videographer	X			
6	CI4: Animator		X		

Diagram 4: State's selections (for all other sectors)

Choice	Yap Trade School: Hospitality / Power	Chuuk Trade School: Nursing / Construction	Kosrae Trade School: Automotive and General Electronics	Pohnpei Trade School: Agriculture
1	F&B / Chef	Nurse	Diagnostic Mechanic	Poultry Farmer
2	Tourism Marketer	Carpenter	Auto Mechanic	Vegetable Farmer
3	Dive Guide	Plumber	Body Repair & Painter	Fisherman
4	Tour Guide	Civil Electrician	Small Engine Mechanic	Pig Farmer
5	Solar Power Technician	Mason	Auto Electrician	Distribution & Wholesale
6	Power Plant Operator	Aircon & Refrigeration Technician	Welder	Shipping & Delivery

Final confirmed list of job occupations and soft skills

13. Post workshop, the National Department of Education further streamlined the list of soft skills and vocational job occupations. A final list of 30 job occupations (see **Diagram 5**) and 8 soft skills (see **Table 3**) were confirmed.

Diagram 5: Final list of 30 job occupations

Table 3: Final list of 8 soft skills identified for FSM

A/ Think Critically (3)	
Critical Thinking	Make a decision and choose a course of action from several alternatives available using structured thinking process in order to solve an urgent issue or achieve intended goals.
Learning Agility	Exercise flexibility in behaviors or approaches to respond to changes and evolving contexts. Be open to learning new skills to support self-development and career growth.
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B/ Communicating with Others (5)	
Conflict Resolution	Resolve conflicts by evaluating and implementing resolution approaches, analyzing mediation outcomes and finding satisfactory solutions for involved parties.
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Customer Service	Anticipate customer needs and provide quality customer services to create a positive customer experience. Build and establish customer service standards and implementing corrective actions to improve service delivery gaps.
Personal Leadership	Make the best decisions for oneself to achieve goals and objectives in the most effective way. Support an inclusive work environment that cultivates workplace relationships and teamwork, and fosters the personal growth of others.

DRAFTING OF 7 JOB PROFILES

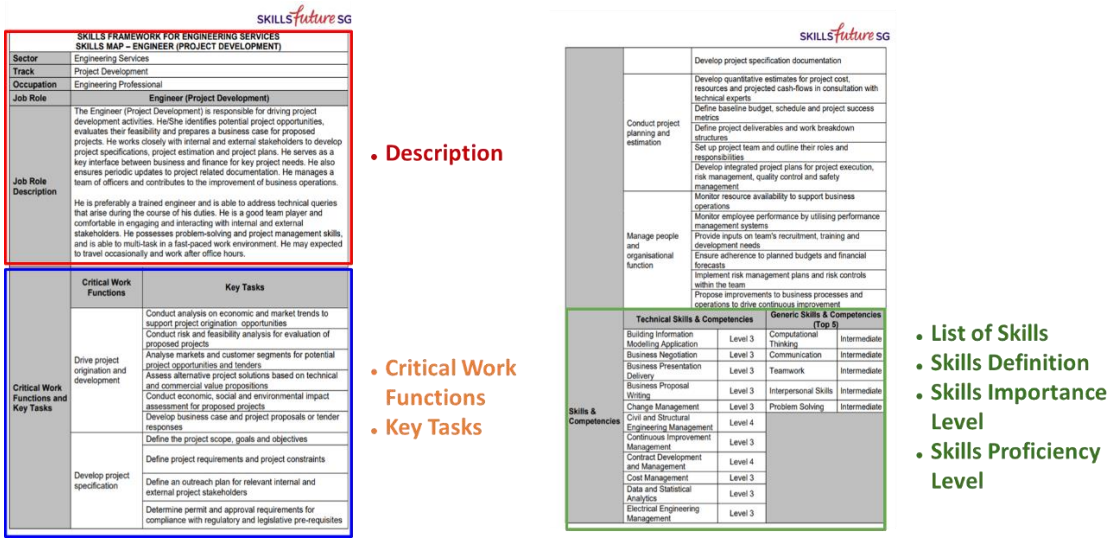
14. Job profiles effectively communicate the key details and expectations of a specific job role, and they are important because they:

- Gives employers a clear point of reference when assessing how well an employee is performing their job responsibilities. This helps in the recruitment of suitable candidates as well as clear definition of career development.
- Provides a clear structure regarding the essential duties, activities and responsibilities of the organization by outlining the employees' responsibilities. This provides clarity for performance management
- Supports curriculum development as it spells out the key tasks and skills needed to perform the job well

15. The key components of a job profile include (see **Diagram 6**)

- Description of the job
- Critical work functions
- Key tasks
- List of skills, including definitions and proficiency level

Diagram 6: Components of a job profile



16. In all, 7 out of 30 job profiles are presented herewith in this report as part of the deliverables. These job profiles were researched and drafted based on referencing from:

- Singapore skillsfuture frameworks (https://www.skillsfuture.gov.sg/)
- Philippines Skills frameworks (https://www.dti.gov.ph/tag/philippine-skills-framework-initiative/)
- O*Net Online (https://www.onetonline.org/)
- Apprenticeship USA (https://www.apprenticeship.gov)

These 7 job profiles, comprising all the identified job profiles under the IT domain, plus 1 under the Creative industries domain, are:

Table 4: 7 job profiles created for this report

S/No	Job profile title
IT1	IT Developer – Designer
IT2	IT Developer – Program
IT3	IT Technician – Computer
IT4	IT Technician – Mobile
IT5	Network Technician
IT6	Cybersecurity Technician
CI1	Graphics Designer

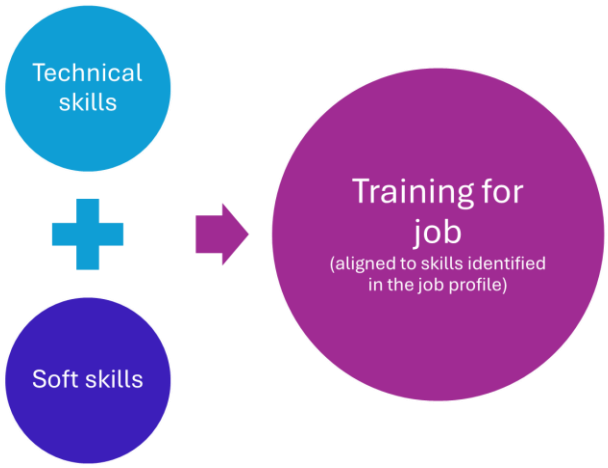
RECOMMENDATIONS ON TRAINING PROGRAMMES

17. The design and conduct of the training programs should take into account, but not limited to, the following considerations:

a) Curriculum developed based on job families – this will ensure alignment across all the job profiles, harmonize and ensure economies of scale in content development and delivery.

b) Recognize differing learning abilities across the various age groups within high school - the work maturity, abilities and aptitude of students at junior and senior level high school students differs, so introductory and generic programs could be introduced at junior levels, while at the senior level, they could start to specialize in the specific domains / job occupations they are most interested in.

c) Training must lead to real jobs – The curriculum developed must aim to ensure that the learners, in their senior year, will ultimately be able to secure relevant job opportunities related to the vocational training undertaken. It must be skills-based and skills-first, as well as immediately relevant to the industry needs in alignment with the skills identified within the job profiles.

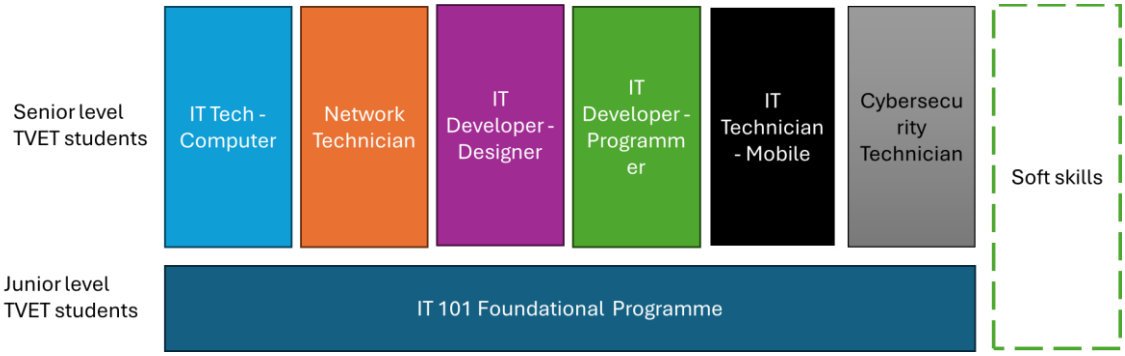


d) Determine sufficient quantity of content – the duration of the program is generally determined by the quantity of content that needed to be taught to ensure that the learners can secure jobs successfully or acquired sufficient knowledge to continue their learning in specialized trade schools upon graduation from high school.

18. The 30 job profiles identified are broadly categorized based on 7 job families, namely, construction, tourism, automotive, information technology, energy, agriculture, and creative industry. There are several ways to design training programs around these job families. For instance, in the construction, automotive and IT industries, which covers a wide range of skills and specialization, the foundational program covering all aspects of the job family could be introduced at junior level, with specialization taking place at senior level. The foundational program at the junior level can allow the students from both CTE and academic programs to achieve a broad

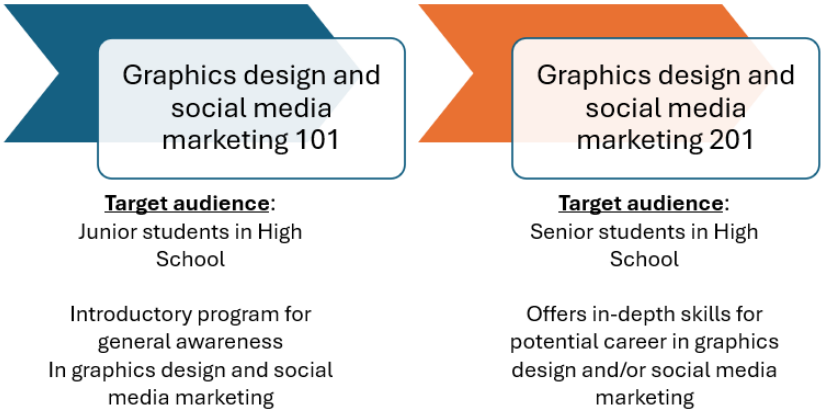
understanding of the different aspects of jobs within the sector, before they undertake further investment of time and effort to specialize in the specific jobs (within that said sector). Soft skills training (based on the 8 soft skills identified) should also be incorporated throughout the curriculum in both senior and junior years. (see sample of IT curriculum development in **Diagram 7** below).

Diagram 7: Proposed overview of vocational education and training curriculum for IT job occupations



19. We could also design curriculum in a manner that gradually deepens the learners' knowledge and interests over time. E.g., for creative industry, the two job profiles identified have inter-related skills and thus, curriculum can be designed such that junior high school students can be introduced to the fundamental concepts, and the practical industrial application of these concepts can be reinforced during their senior years (see **Diagram 8** below).

Diagram 8: Proposed overview of vocational education and training curriculum development for creative industries



20. Ultimately, there is no 'one size fits all' methodology, and the curriculum development is typically determined by the preference and experience of the curriculum specialists engaged to develop these vocational trainings.

End

REPORT ON INITIAL JOB OCCUPATION RECOMMENDATIONS

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6. This report serves to update on the key findings and recommendations resulting from the fact-finding trip to Yap, Chuuk, Kosrae and Pohnpei conducted from 1 May to 22 May 2024.

OBSERVATIONS FROM FACT FINDING TRIP

7. A total of 47 engagements with 161 interviewees were conducted across Yap, Chuuk, Kosrae and Pohnpei (see **Charts 1 and 2** below for total number of meetings and interviewees met, as well as **Annex A** for schedule of meetings and notes of meetings). Within each state, meetings, interviews and focus group sessions (see **Annex B** for questionnaire) were held with four groups of stakeholders, namely

a) Government officials
b) Educators
c) Students, primarily in final year of students, and/or vocational training
d) Industry leaders and businessmen

Chart 1: No. of meetings/interviews/focus group sessions held during the fact finding visit

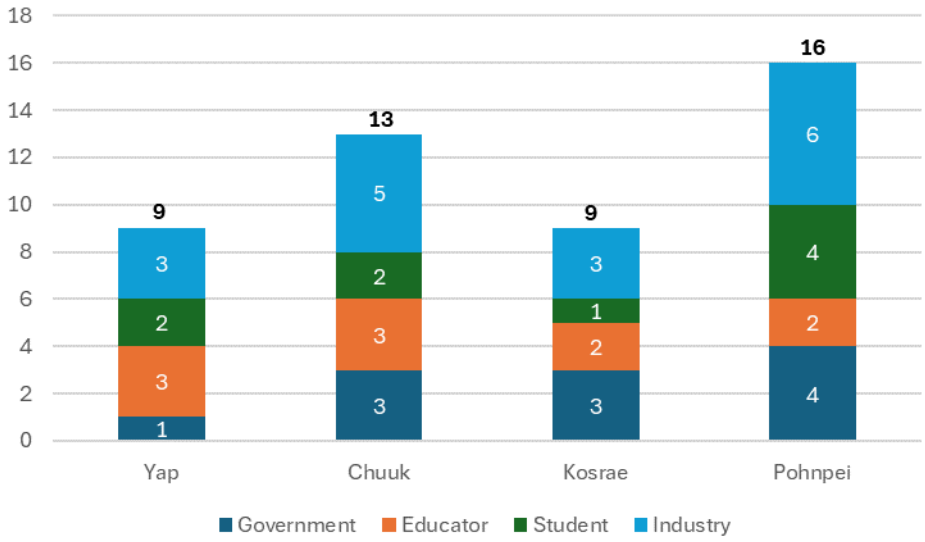
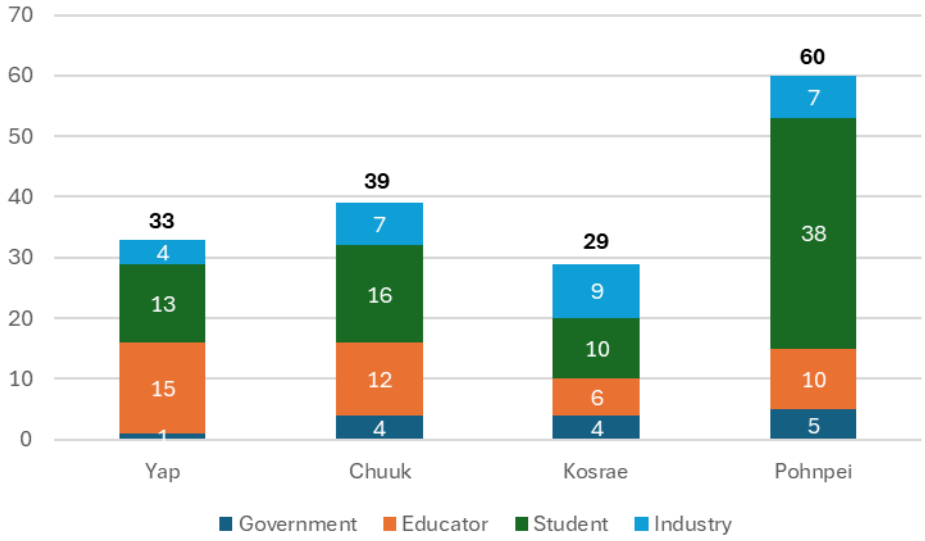


Chart 2: No. of interviewees met during fact finding visit



8. The visits allowed direct interactions and immediate observations of the general sentiments and challenges on state of industry, as well as vocational training set up in the various states. Government officials met were primarily from Governor's office, National and State Departments of Research and Development and Department of Education. Educators were the management, academic and vocational teachers from the key public high schools, namely, Yap High School, Chuuk High School, Kosrae High School and Pohnpei Island Central High School (PICS). Students were categorised in accordance with those under vocational training as well as those within the academic track. The industry representatives came from government linked enterprises as well as private owners, spanning across various key sectors of public utilities, civil works /

construction, IT and hospitality. Such a broad spectrum of representatives allowed a good sensing of the market and labour sentiments within a short span of time, while taking into account the needs, views, opinions and perspectives of the various groups of stakeholders. Honest and direct discussions were carried out, touching across a multitude of issues including, but not limited to, outmigration issues; over reliance of foreign labour, especially from the Philippines; motivation and work ethnics of the local workforce; societal and cultural norms that impeded workforce development; resource constraints, lack of robust and comprehensive economic planning, amongst others. Key observations and recurring sentiments from these conversations include:

A. Motivation Issues: 'The spirit is willing, but the mind is weak'

9. Inertia and lack of motivation were commonly cited among the various interviews as reasons (or excuses) for slow pace of progress and development, be it in self, organisation or state. The high land ownership and extensive interwoven clan / family network created strong safety nets, which can sometimes reduce the urgency for young adults to seek employment or self-improvement, as their basic needs could be met as long as they were not overly ambitious or have high expectations. Preassigned family/clan's roles were given to everyone at a young age, and many youthful ambitions were suppressed under the weight of these obligations and responsibilities. This environment can limit the development of mental finesse and resilience necessary for excellence. Many young people also lacked confidence to pursue their dreams, or to expand their knowledge and capabilities based on their interests, if unaligned to their parental's approval. Across the industries and educators, many adopted a 'wait and see' approach, and given that this was a 'consensus' society, the lengthy and complex consultation process further deterred competent people from taking leads to drive initiatives, or even voicing out.

B. Perception and management issues: 'Support local?'

10. In addition to lack of relevant skillset, concerns about work ethics and job responsibility were often mentioned regarding the local workforce. Locals were compared against the Filipinos, with the latter praised for their diligence, reliability, and commitment to their work. Absenteeism due to lengthy funeral arrangements and alcoholism were regularly cited as unfavourable behaviours. instead of addressing and mitigating these issues, many businesses opted to hire foreigner workers. Many businesses did not have proper human resource management and development practices. Salaries were often kept close to minimum wage, with little emphasis on career planning or structured planning. However, among selected businesses which relied predominantly on the local workforce, it was noted that these owners tended to be progressive, willing to invest in training, and had more structured HRM practices, such as performance-based wage increments and staff incentives. Such pro-employee's practices allowed them to keep a stable number of committed local staff. For example, instead of taking leave for 1 – 2 weeks for funerals, staff, appreciating the cordial and collaborative relationship with their management, were more willing to reduce their leave for funerals from 1 -2 weeks to 3 days.

11. This dynamic was again observed during the discussions on the agriculture and hospitality vocations. When asked about commercial agriculture and the lack of restaurants serving Micronesian cuisine, many cited that the locals preferred foreign imported foods instead of local as they deemed foreign produce to be of better quality.

C. Application is the key: 'The weak link'

12. Theory, practice and application were the 3 fundamental components of vocational training. industrial attachment or internships (application) is a major and important building block. In successful vocational training systems in countries such as Finland, Australia and New Zealand[1], strong industry partnerships was the key pillar for success. Likewise, in most economies, there were business and industrial associations respectively, with the former being more broad-based spanning across various industries, while the latter focused on specific needs and engagement with their respective sectors. In the case of FSM, in addition to FSM Association of Chamber of Commerce (FSMACC), most states only had state-based business councils, e.g., Pohnpei Chamber of Commerce. However, with the exception of Kosrae having a newly minted Farmers Association, these councils tended to be broad-based without key/specific industrial focus.

13. Communication among the private sector, government and vocational schools was also scant and inadequate. The link between association and vocational schools was rather weak, with internships organised on an organic and ad hoc basis. For example, Pohnpei Island Central High School (PICS) did not have industrial internships for their vocational students, instead of a planned, structured and sustainable basis. Consequently, the range of courses offered and the skills taught often do not align with actual labour market needs. This misalignment thus resulted in significant skill gaps and missing occupational standards in important trade sectors.

D. Vocational training operational issues: 'a natural garden versus a manicured lawn'

14. CTE programmes generally begun with introductory courses in Grade 9, focusing on occupational preparation via theory and practical skills training, and in selected states, limited industrial attachment. Despite a seemingly functional structure, TVET options in practice were limited and fragmented and there was a general lack of strategic direction and coordination in the TVET sector. Framework documents (legislation, national strategy) or institutional arrangements regarding funding, provision, ownership, and regulation of TVET systems, identification of involved parties, their roles and responsibilities, and the required level of formal competence for various trades were non-existent. In all cases, vocational training was offered to less academically inclined students, with some vocational students commented 'they were forced into it'.

[1] *https://wendyperry.com.au/2023/05/11/where-are-the-countries-that-standout-in-vocational-education-and-training/*

15. Majority of the vocational teachers were employed based on their industrial knowledge and did not possess fundamental pedagogy training. They might know how to repair a car, but they might not know how to motivate and impart their knowledge in an engaging and comprehension-able manner to their students. Curriculum outlines were generally highly theoretical with some form of practice, but very little application. Contrary to academic studies, which had a structured and standardised curriculum, vocational lesson plans were designed by individual vocational teachers and not properly assessed. As majority of the vocational high school students did not proceed to the College of Micronesia, coupled with the inconsistent vocational training received and lack of vocational certificates, many high school graduates (who were unable to progress to COM) ended up with in situations where they were unable to be recognised as skilled workers, and henceforth, unable to secure better paying jobs. Parental support and involvement were generally lacking in all the schools visited. The lacklustre perception and low respect for vocational training was also prevalent throughout all the states visited.

16. Due to the inability to produce industry relevant and demanded skillsets, almost all employers reported a widespread lack of qualified domestic labour force and the need for a significant improvement both in general education and technical skills. The reported shortage of skilled workers included car mechanics, carpenters, masons and other construction workers, electricians, maintenance workers, equipment operators, customer service representatives, general Information Technology (IT) support, air conditioning technicians, and even certified nurses.

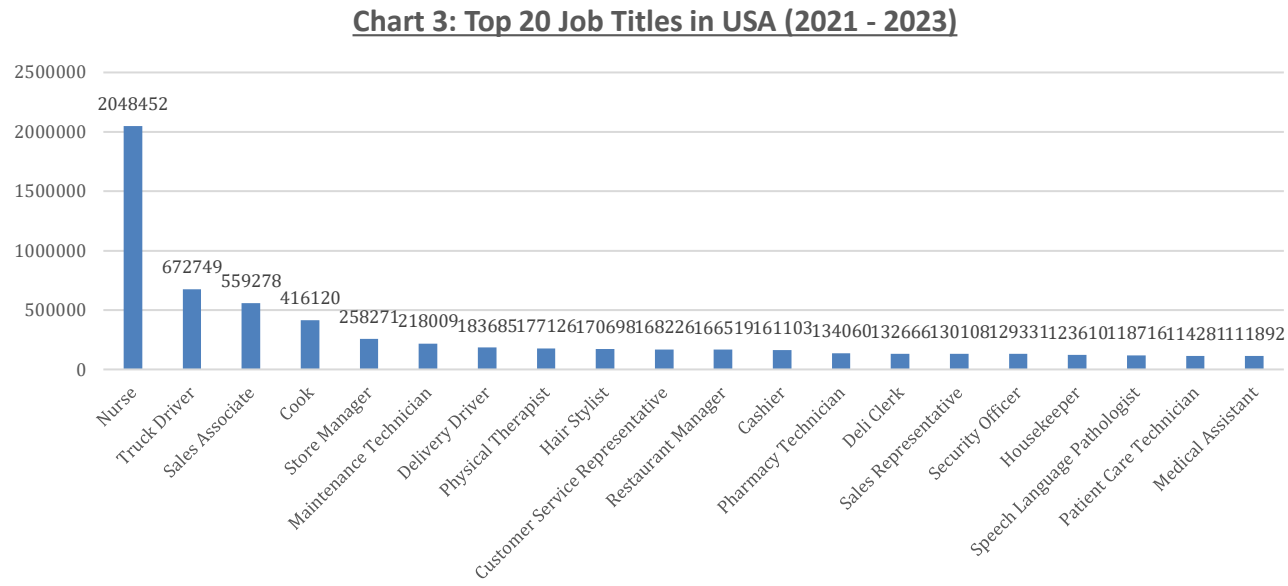
E. Needs of the State versus the wishes of the youths: 'The heart wants what it wants'

17. In the interviews with the government and industrial representatives, almost all cited the continued need for traditional tradesmen such as mechanics, electricians and masons. However, among the students interviewed, majority desired more technologically based and newly emerging occupations such as IT, content creators and even data analysts. Interestingly, one bureaucrat even expressed apprehension, stating that "AI is scary." This mismatch between the preferences of industry stakeholders and the aspirations of students was a cause for concern, as there is a need to take into consideration the desires of the youths, as they will ultimately be the ones entering vocational placements. Finding ways to reconcile these differing perspectives, while also acknowledging the possibility that some youths may opt for traditional livelihoods such as farming and fishing, is essential for attracting them to the less traditionally 'enticing' vocational occupations.

SELECTION OF 10 VOCATIONAL OCCUPATIONS

Macro data

18. In view of the displacement and out-migration of Micronesians into the USA, USA's employment data from O-net [2]is utilized to identify the top jobs in the USA which may be applicable for job occupations and associated skills development in the FSM. According to data from O-Net (see **Chart 3** below), the top jobs in demand in the USA from 2021 to 2023 are nurse, truck driver, sales associate, cook and store manager.

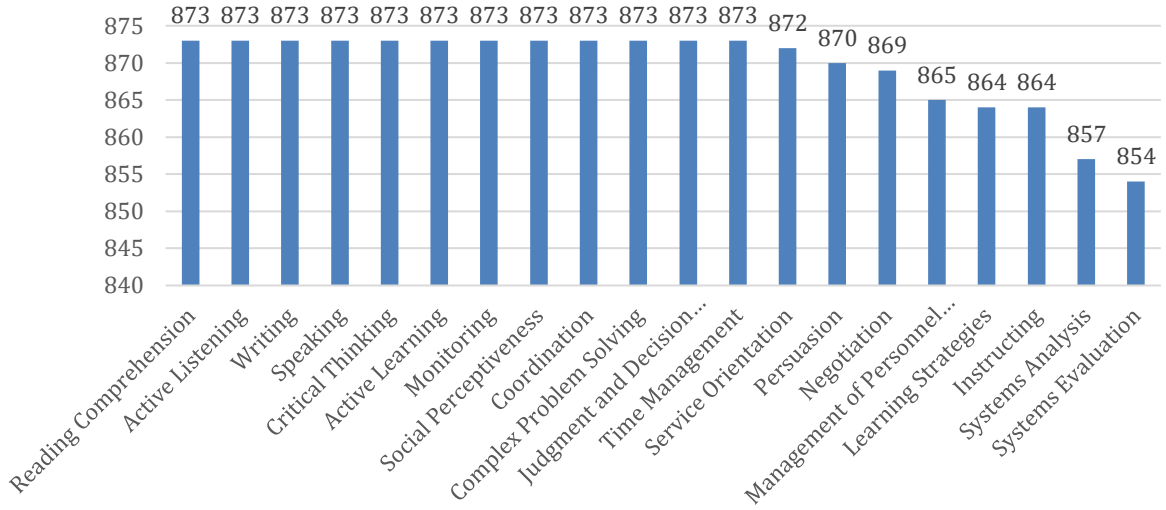


Source: O-net

19. In term of top skills in demand in the USA, it primarily focuses on soft skills such as reading, listening, writing, speaking and creative thinking (see **Chart 4** below). This is not surprising as the job data indicated that the majority of the vacancies are for operational jobs which do not require technical skills.

[2] *https://www.onetonline.org/. O-net is free online database that contains hundreds of job definitions to help students, job seekers, businesses and workforce development professionals to understand today's world of work in the United States. It is one of the most comprehensive job data sites for the USA.*

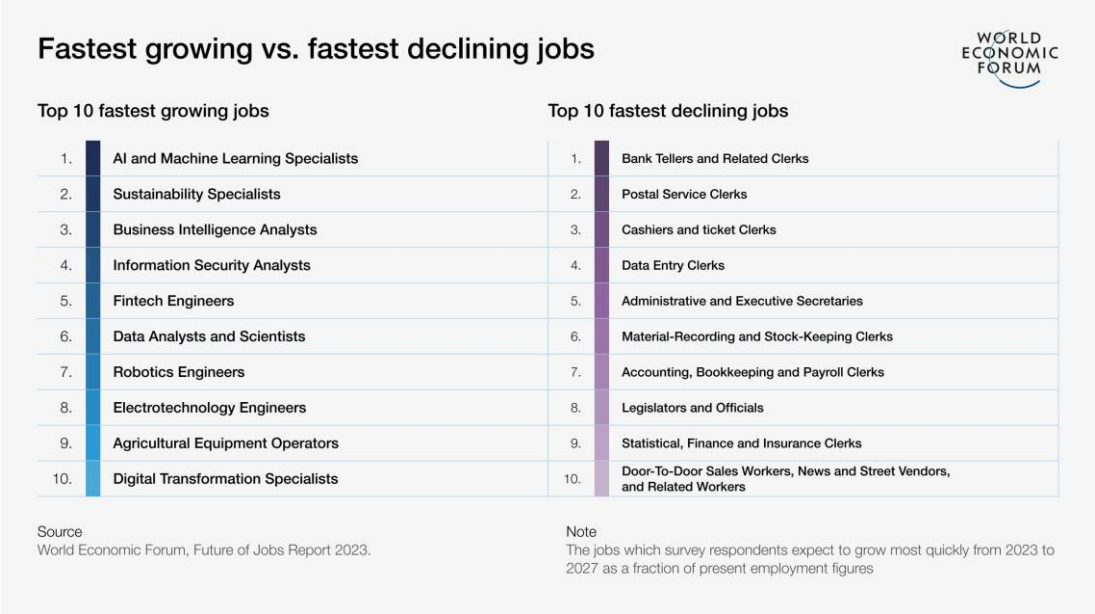
Chart 4: Top skills in USA (2021 to 2023)



Source: O-net

20. However, this data is set to change very rapidly in the next 5 years. A report by Accenture[3] predicted that around 40% of all working hours could be impacted by AI large language models such as ChatGPT-4. According to the World Economic Forum's Future of Jobs Report 2023[4], many clerical or secretarial roles are likely to decline quickly because of AI. Here are the top 10 jobs the Forum sees growing fastest – and declining fastest – in the next five years (see **Diagram 1** below):

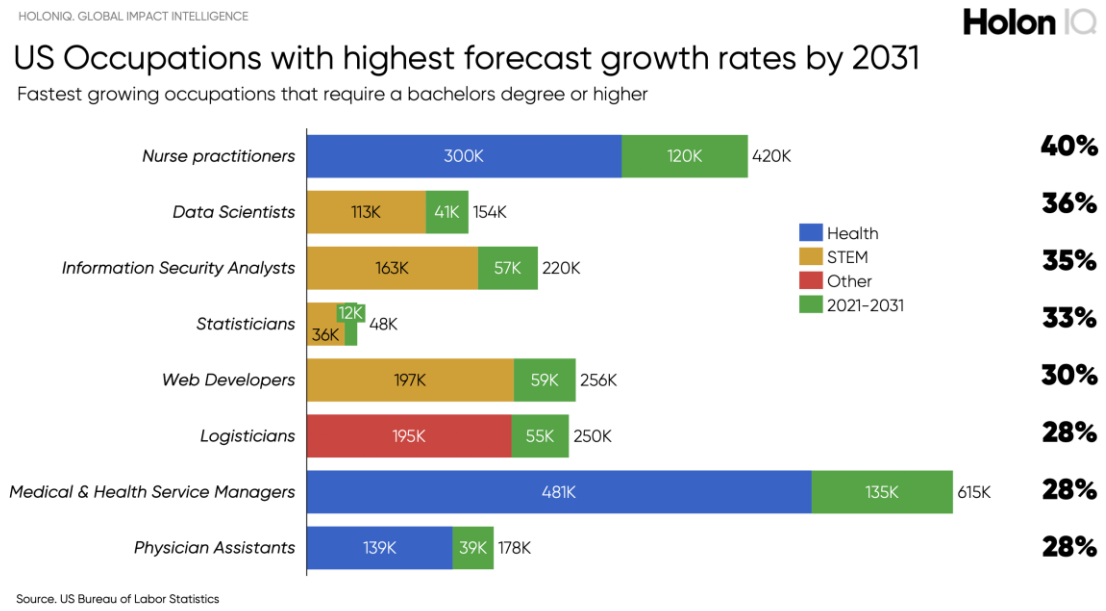
Diagram 1: WEF's fastest growing versus declining jobs (2024 – 2029)



[3] *Source: https://www.accenture.com/content/dam/accenture/final/accenture-com/document/Accenture-A-New-Era-of-Generative-AI-for-Everyone.pdf.*
[4] *Source: https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf*

21. Another report by Holon[5] (see **Diagram 2** below) shares similar (albeit slightly different) forecasts, with jobs primarily in the healthcare / Medical, Information technology and logistics sectors.

Diagram 2: Holon's US Occupations with the highest forecast growth rates by 2031



22. These reports share certain similarities in their predictions:

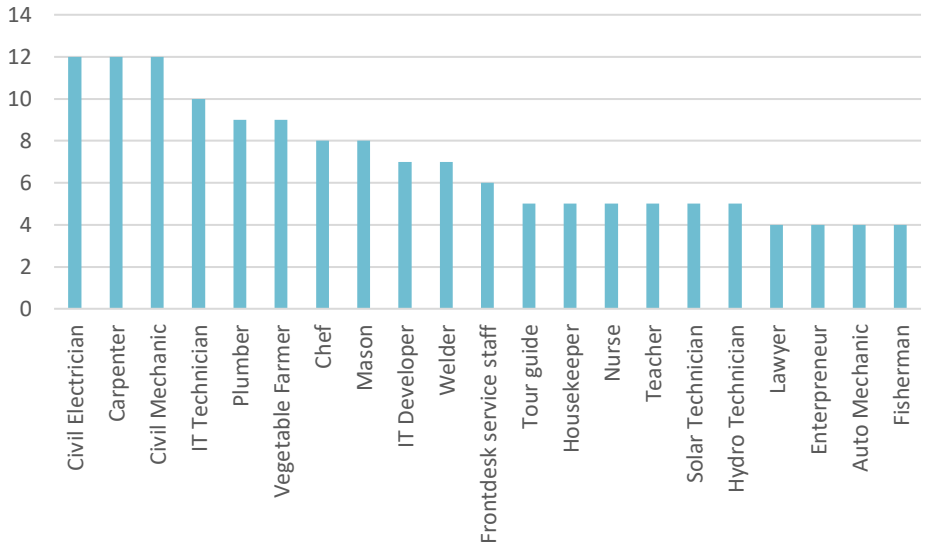
- Low level operational jobs will be overtaken by automation and technology solutions. Workers currently in operational roles will need to unlearn and relearn rapidly.
- Future jobs are related to the global trends of ageing population (hence, healthcare) and manpower shortage (hence, technological jobs).
- Future jobs require technical knowledge and transferable soft skills, with the latter gaining importance as career versatility gain prominence among the new aged workers.

Local data

23. As vocational training data are not collected (and hence, unavailable) in FSM, a proxy of vocational job in demand was derived from the job mentions (see **Chart 5** below) during the interviews and focus groups.

[5] Source: https://www.holoniq.com/notes/the-future-of-post-secondary-education-in-the-us

Chart 5: No. of mentions of job occupations



24. Unsurprisingly, key industries highlighted include almost all vocational occupations within civil / construction works, as well as selected vocational occupations from automotive, hospitality, agriculture and healthcare, amongst others.

25. Taking into consideration,

a) FSM national industrial focus on energy, agriculture, tourism, and marine/fishery;
b) Global occupational demand where the trend clearly highlight the push towards digital related jobs;
c) Insights from fact finding trip,

it is envisaged that the occupations selected should comprise a mix of traditional and digital vocations. The initial list of 35 vocation occupations spanning across 8 sectors of construction, tourism, automotive, information technology, energy, agriculture, creative industry and public service is proposed as below.

Diagram3: Proposed list of initial job occupations

26. For each sector except public service, a minimum of 3 vocational occupations are suggested. This is because should there be an intent to set up an industry trade school, it should at least offer a few key selected occupations within that specific sector as a start, for the trade school to make economic sense, as well as to build upon for further expansion. Hence, although most of these vocational occupations, e.g., mechanics and electricians, are mentioned often by the different stakeholders, we have also included some, such as tour guides and graphic designers, as complementary considerations.

27. For the civil industry, solar technician is included in the list as a nod to FSM's priority on sustainable and renewable energy. For the tourism industry, there is a need to professionalize some of the key jobs such as chefs and tour guides so that the overall service standard can be improved to attract higher net worth tourists. For the automotive industry, given the increased use of electric components (e.g., electric car keys) and the growing popularity of electric cars, we have included auto electrician into the list. Body Painter is included as almost 100% of cars in FSM are second hand / refurbished cars, so inevitably, body works is an area in huge demand. In the space of information technology, IT Developer is suggested based on the observation of youth's aspiration and the possibility of remote working. For the creative industry, graphics designer, digital marketer and several others are added in recognition of Micronesian's creativity and forte in arts and design, while marrying technology. It is also another area where remote working is possible. As for the agriculture industry, although there isn't any poultry / egg production facilities within FSM for now, we have included poultry farmers to take into consideration FSM's intent to set up such facilities in the near future. For public service, nursing assistant and teaching assistant are suggested for now, as it can be established as a standalone vocation. Noteworthy that for the vocational occupations suggested, an envisaged significant portion of skills should also

focus on soft and business-related skills, such as entrepreneurship, marketing, personal leadership, customer service and financial literacy, amongst others, so as to build up greater capacity to create private sector-driven commercialization and expansion of these industries in FSM.

28. This set of vocational occupations will be proposed at the upcoming vocational occupation consultation workshop scheduled to be held in end June in Pohnpei for further prioritization.

END