2023

Human Capital Development Review for Fiji

June, 2023

Prof Hitendra Pillay
(International Consultant)
Queensland University of Technology,
Brisbane, Australia

Mr Fesaitu Mario & Mr Kum-On Tarawa
(Secretariat & Research Assistant)
Kiliati Enterprise, Suva, Fiji Islands

Table of Contents

Acknowledgement

This national human capital review assignment was initiated by the Fijian Government during the 2021/2022 revised budget debate.[1] The Tertiary Scholarship and Loans Service (TSLS), a statutory organisation mandated by Act to administer scholarships and study loans, was tasked to coordinate this review work.

The TSLS Board coordinated the work under the leadership of the Chief Executive Officer (CEO) for recruitment of consultants, facilitation of stakeholder meetings and group meetings, and liaising with various stakeholders to access data and relevant information.

Cognisant of some overlap between this assignment and the mandate of TSLS, the TSLS Board established an external oversight committee chaired by the Permanent Secretary for Civil Service with membership of Permanent Secretary of Employment, Industrial Relations & Productivity and Chief Executive Officer of Fiji Commerce & Employers Federation. This was to ensure high level of transparency and good governance to add credibility to the work undertaken in this assignment.

The project team is most grateful to TSLS Board and the CEO for the excellent support rendered throughout the assignment to get this work completed despite the challenges of not having timely access to data and other pertinent information.

[1] Revised Budget Speech for FY 2021-2022, Page 88. Ministry of Economy, Fiji.

Executive Summary

The supply of sufficient, well qualified workers is becoming a global challenge. This has been triggered by increased workforce mobility that stems from:

- insecurity caused by man-made and natural disasters.
- the search for a better quality of life for themselves and the next generation,
- declining birthrates and ageing populations
- adapting to technology-led innovations
- searching for work–life balance by leveraging subsistence economies.

Fiji is not exempt from these challenges. This report provides a review of the Fijian workforce context and an assessment of the demand for and supply of well-prepared employees to support the national economic development. It also notes some critical actions to improve the planning and supply of the required workforce.

1) The first lesson learned from this work was the scarcity of organisational and institutional data on human resource profiles and the limited awareness and capacity to use data for planning and resourcing the national workforce supply. There is an urgent need to establish mechanisms to systematically collect appropriate data from both private and public sector stakeholders to evaluate current trends at all levels of a stratified workforce and develop plans for short- and long-term human capital demand and supply. An evaluation of such data is necessary to support the anticipated diversification and expansion of the Fijian economy. It is important that the mechanisms capture all data, not just government-sponsored investment data, as there is a large cohort of privately funded students who, after graduation, will also contribute to the national human capital demands.
2) To help increase access to this data, a culture of sharing information to improve the national human capital development system should be prioritised. This is particularly applicable to the supply-side stakeholders, namely the universities, who were reluctant to provide any data for the current analytical work. In most international jurisdictions, including Australia, it is mandatory for higher education institutions to regularly provide requested data as a condition of receiving government grants. It should therefore be made mandatory for all recipients of the Fijian government grants to provide basic student data (enrolment, completion, dropout by programs etc.) either by semesters or annually.
3) The Fijian economy is small and not heavily industrialised thus does limited if any, blue-sky research. The current over-emphasis on more costly and unsuitable degree programs has hugely undermined and starved the skills sector that provides the most employment in the country, and in many other successful economies. Degree holders are overqualified for majority of job types available in the Fijian economy and employers are reluctant to recruit them and pay graduate salaries for jobs that are typically for higher technician level workers. There is an urgent need across all sectors for large numbers of skilled people with Fiji Qualification Framework (FQF) levels 3–6 qualifications (the trade and higher technician level workers), thus future investments in human capital development (HCD) should increase its focus on FQF levels 3–6 programs.

4) Apart from the realignment of HCD investments, there is a need to 'revitalise' the TVET sector, as traditional institutions involved in this sector (apprenticeship and advanced technician level programs) have been mostly dismantled and finances redirected. This reorganisation may take some time. As a dual sector university, Fiji National University (FNU) seem to have failed to prepare and supply the skilled workforce and has lost the confidence of the industry. Nevertheless, the revitalisation of the TVET sector is in progress through a joint working group made up of private and public sector stakeholders. The government should support and accelerate the re-establishment of an industry-led TVET system as soon as possible so appropriate industry-recognised programs, registered with FHEC as FQF levels 3–6 are available.
5) Cognisant of the urgency of demand for a skilled workforce, an immediate response is required. Tertiary Scholarship and Loans Service (TSLS) funds may be allocated to high priority TVET programs as 'grants', with students bonded to do equivalent time working in local industries. Since the current key TVET providers' capacity is saturated, a previously trialled micro-credentialling program with industry partners could provide a possible solution.[2] These industry partners have training facilities, in-house skills development programs and industry-qualified staff, and TSLS could buy seats in their in-house training programs. Such an approach would avoid large capital investments and prolonged set-up times and invite industry to play a significant role in national human capital development. The above immediate action may be designed as a subset of the typical apprenticeship program and later rolled into the revitalised industry led national TVET system, using recognition of prior learning mechanisms.
6) Relevance and quality of human capital development programs should suit the demands of the Fijian economy and the Fijian industries, and the programs should be modernised by adopting increased information and digital technology (IDT) applications. The Fijian economy is not heavily industrialised, it requires a small number of workers with degree qualifications and larger numbers with TVET skills and with diploma-level qualifications for technician level work, as reflected in the current national workforce data. The current oversupply of degree holders should be reviewed and support for degree scholarships be reduced. More funding should be made available for two-year diploma programs in engineering, and three-year paramedics and two-year assistant nursing diplomas, diploma in early childhood education etc, to match the level of expertise required.[3] These qualifications are relevant to local industry demands and affordable for employers. They set up career pathways for workers to upgrade to next-level qualifications when employment opportunities change, but also supply qualified and affordable workforce to meet immediate needs.
7) Government support for human capital development should primarily respond to national demands and the local economy, rather than to global workforce supply. While recent increased workforce mobility is valued because of the remittance

[2] TSLS trialled micro-credentialling with 200 student and construction industry partners, which was very successful, with all students receiving job offers on graduating from the program. Potential industry partners are noted in Recommendation # 3.

[3] Current workforce is more stratified thus qualification must align with the job requirements, as can be seen in Australia and other international jurisdictions. There is a more diverse workforce with qualifications aligned with the nature of occupations not a simple dichotomy between degree and trade only.

earnings as foreign income, it must not come at the cost of building the local economy—because remittance does not directly help build the local economy. Therefore, a balanced approach to servicing the needs of the unique Fijian economy, while supporting individuals seeking international workforce mobility is necessary.

8) The efficiency of HCD investments needs improvement, the high attrition rates seen in both scholarships and tertiary loans schemes need to be reduced. Just because someone has achieved the minimum score, does not mean they are always able to successfully complete a university degree. For programs such as MBBS, Australian universities use Graduate Medical School Admissions Tests (GAMSAT)[4] on top of the Grade 12 marks. While a general merit-based approach is advocated to ensure high completion rates, care must be taken to ensure equity for students from rural and remote areas, who may not have had the same learning opportunities as the urban students. It will be prudent to allocate 15–20% of scholarships for equity-based selection. In general, there is a need to develop better selection criteria for scholarships, to ensure fairness and achieve higher completion rates.
9) The cost of living is a serious issue globally and it is no different in Fiji, impacting several levels of the economy**.** There is an urgent need to review wages to at least match the latest CPI. Low wages are linked to absenteeism, worker apathy, lack of pride in and ownership of completed work, and also encourages retreat to subsistence economy. Unlike the West, Pacific economies, particularly that of Fiji, are complex, involving a robust subsistence economy, remittance, and land lease monies. Any wage increase should take into consideration other possible sources of earnings and their impact on attracting people into the formal workforce. However, wage review must be linked to real productivity, particularly when most employers mentioned the need to retrain graduates, which imposes not only a training cost but also a loss of productivity during that period, for the employer.

Human capital development can be a major challenge for most economies during these turbulent times, but it is even more critical for small Pacific Island economies. Government investments are only a small part of the total national investment in HCD in Fiji; a large portion is also supported by the private self-funding people. Institutions such as the FHEC, Fiji Consumer Council and National Skill Council (in process of being established) must be strengthened to ensure consumers receive value-for-money, high-quality and relevant education and training. This is particularly the case in today's highly competitive, market-driven post-secondary education and training sector, where popularism and external agendas seem to override local workforce issues. A lack of any analytical work to guide the HCD investments in the past has seen a lot of wastage of both public and self-financing private sector funds. While the analytical work reported here has been challenged by reluctance to co-operate and to provide access to data and policy documents, it does expose significant gaps in the current HCD planning system.

[4] https://gradready.com.au/medical-school-entry-requirements

Acronyms and Abbreviations

BPO	Business Process Outsourcing
KPO	Knowledge Process Outsourcing
CPI	Consumer Price Index
DFAT	Department of Foreign Affairs and Trade
EFL	Energy Fiji Limited
FNU	Fiji National University
FHEC	Fiji Higher Education Commission
FBoS	Fiji Bureau of Statistics
FSC	Fiji Sugar Corporation
FQF	Fiji Qualification Framework
GAMSAT	Graduate Medical School Admissions Test
HCD	Human capital development
IDT	Information and digital technology
LFPR	Labour force participation rate
NTPC	National Training and Productivity Centre
OECD	Organisation for Economic Co-operation and Development
PALM	Pacific Australia Labour Mobility
SME	Small-to-medium enterprise
TVET	Technical and vocational education and training
TFL	Telecom Fiji Limited
TSLS	Tertiary Scholarship and Loans Services
USP	University of the South Pacific

1: Context and Background

The Republic of Fiji is an archipelago stretching across more than 330 islands in the South Pacific Ocean. The country is well connected internally and with the outside world by air and sea, and often considered the gateway to the South Pacific region. It has good local infrastructure for transport, utilities such as electricity and water supply, and internet connectivity to support most kinds of economic activities. However, the geographic location and small size of the economy can make it very vulnerable to external shocks such as cyclones[5] and pandemics like COVID-19. Thus, appropriate contingency planning is very important for rapid recovery from such events.

Population

The country has a population of 884,887[6], which is concentrated on the country's two main islands: Viti Levu and Vanua Levu. The annual growth rate has declined from 2.0% in 1986 to 0.6% in 2017. Of the total population, 55.9% live in urban centres and the rest in rural areas including small islands (see Table 1). The population growth is gradually slowing, due to a declining birthrate and an increase in migration. Fiji has a young population, with a median age of 27.5 years, and in 2020 the life expectancy was 68 years.[7] It has a well-educated population that is very conversant with Western models of business and work practices. Considering the relatively young population and reasonably high life expectancy, investing in developing the human capital has potential to provide a high return on investment and support the national socioeconomic growth and development.

Table 1: Total population by urban and rural, 1986–2017

Census year	Population	Annual growth rate (%)	Median age (years)	Urban	%	Rural	%
1986	715,375	2.0	20.6	277,025	38.7	438,350	61.3
1996	775,077	0.8	21.2	359,495	46.4	415,582	53.6
2007	837,271	0.7	25.1	424,846	50.7	412,425	49.3
2017	884,887	0.6	27.5	494,252	55.9	390,635	44.1

Source: 2017 Population and Housing Census, FBoS Release No: 1, 2018

Over the last decade, there has been a significant increase (2.4%) in urban population, driven by perceived better work opportunities and higher living standards. The population has a high gender parity, with a sex ratio of 102 males for every 100 females in the 2017 census. Despite high gender parity, the female Labour Force Participation Rate (LFPR) shows a significant gap.

[5] In April 2020, Fiji was hit by category 4 Tropical Cyclone Harold, which impacted 20% of the population. Then in December 2020, the country was again hit by Cyclone Yasa, a category 5 cyclone—the worst cyclone to hit Fiji since 2016's Tropical Cyclone Winston.

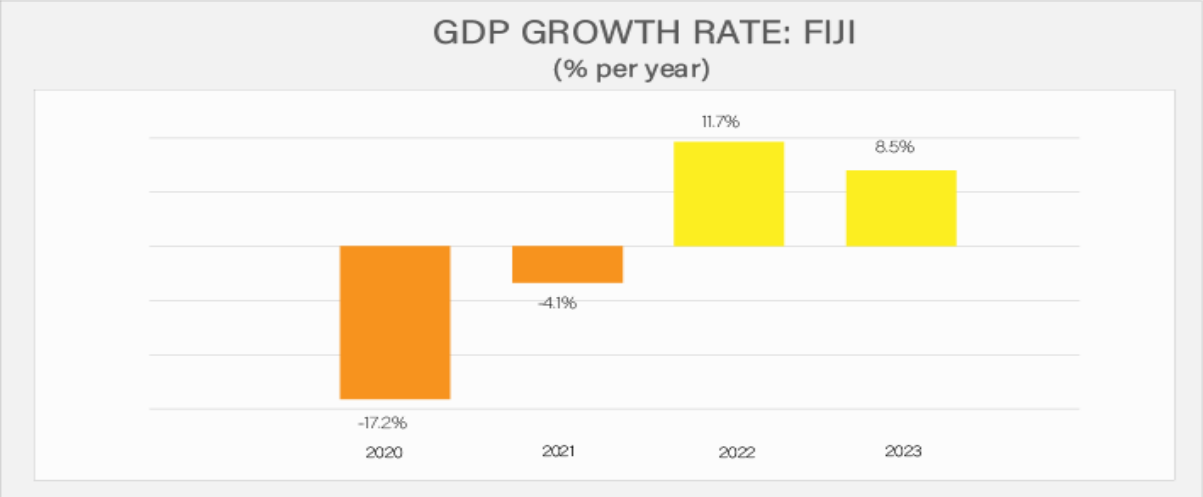
[6] FBoS Release 1, 2018. Reports the national population in 2017. This is the most recent data available on national population.

[7] https://data.worldbank.org/indicator/SP.DYN.LE00.IN?locations=FJ

Economy

The country enjoyed an economic growth in the last eight consecutive years, leading to a strong gross domestic product (GDP) growth of 4.1% in 2017.[8] However, the economy contracted significantly during the COVID-19 pandemic, as shown in Figure 1 below. The tourism sector, the largest economic activity in the country, suffered hugely during the pandemic. A large percentage of the workers were retrenched, and the national economy was almost stagnant. In parallel with the pandemic, Fiji also suffered through cyclones Yasa and Harold in 2020, which added pressure to the fragile economy. Fiji has perhaps the largest and most innovative economy among the South Pacific Island countries; however, these recent climate and public-health emergencies caused its GDP to contract by 19% in 2020 and compounded the country's development challenges.[9] Despite the challenges, the post-pandemic recovery was fast, as shown by the revised 2021 GDP, which had significantly increased showing the resilience of the national economy. Having well developed structures and processes in place, Fiji was able to recover quickly. In 2022, the GDP was projected to bounce back to 11.7% and to continue to grow in coming years, as shown in Figure 1.[10]

Figure 1: GDP growth rate 2020–2023



Source: Asian Development Bank. *Asian Development Outlook 2022 Update* (September 2022).

The Fijian economy is currently hugely dependent on the service sector; particularly the tourism industry. The industry shutdown and retrenchment of staff created a need for workers to be self-employed to support themselves. This encouraged an increase in small self-employed enterprises and a return to a subsistence economy. The consequence of the growth in self-employed enterprises is that workers are now reluctant to return to the formal eight-hour working day, contributing to huge staff shortages.

The Fiji Bureau of Statistics (FBoS) macro data for economic contribution by sector indicates that the service sector contributed 73%, industry (manufacturing and utilities) 10.4%, and primary industry 9.5% in 2017. This has been relatively consistent for the last five years; however, more disaggregated data by sub-sectors contributing to national GDP will be more

[8] https://www.rbf.gov.fj/quarterly-review-december-2017/
[9] https://www.rbf.gov.fj/
[10] https://www.adb.org/countries/fiji/economy

helpful to identify the more productive sectors and thus may be targeted for future HCD investments.[11]

To appreciate the size of the industry and possible employment options, Table 2 presents the industry sectors with large numbers of registered businesses. Manufacturing contributes 10.7% to the national GDP and has 943 registered companies. Wholesale and retail and repair of motor vehicles and cycles contributes 8.9% to the national GDP through the 4,822 registered companies. Transport and storage contribute 6.2% to national GDP and has 1,703 businesses registered. Similarly, accommodation and food services contribute 4.9% through 1,082 businesses, and education contributes 6.7% through the 1,457 active entities in the sector. Other significant sectors (such as finance and agriculture) that contribute to the GDP are noted but data on the size of the sectors in terms of number of active businesses is not available. As can be seen, the relationship between contribution to GDP and the size of the sector varies; industries associated with high value products and services make larger GDP contribution but may not necessarily require large numbers of workers.

Table 2: Industry sector size and GDP contribution

Industry sector	No. of active businesses	Contribution to GDP[12]	Number employed[13]
Manufacturing	943	10.7%	23,031
Wholesale and retail trade including automotive sales and repairs	4,822	8.9%	30,749
Transport and storage	1,703	6.2%	13,490
Accommodation and food services	1,082	4.9%	17,907
Education	1,457	6.7%	16,804
Financial and insurance	n/a	8.0%	5322
Public administration and defence; Compulsory social security	n/a	7.4%	17,869
Agriculture	n/a	6.5%	5,745
Information and communication	n/a	4.2%	3,938
Construction	n/a	2.3%	11,818

Source: Table compiled from data supplied by FBoS and extracted from FBoS publications.

Mapping the employment opportunities with the major industries, in terms of size and contribution to the national economy, shows that the industries noted in Table 2 cover approximately 80% of all wage and salary employment in the country. Moving forward, the digital transformation of many of the above industry sectors and the government's aspiration to embrace digital technology are likely to see a rapid escalation in demand for digital technology experts at all levels to help transition the current practices to a digital world of work. Such transition provides an opportunity for the post-secondary education service providers to adapt their programs and be more responsive to the evolving industry demands.

[11] https://www.statsfiji.gov.fj/latest-releases/national-accounts.html
[12] https://www.statsfiji.gov.fj/index.php/statistics/economic-statistics/national-accounts-gdp
[13] https://www.statsfiji.gov.fj/statistics/social-statistics/employment-statistics44.html

Workforce landscape

Supporting the above economic activities requires the availability of appropriately qualified workforce. The working age population in Fiji is shown in Table 3 below—this represents the potential workforce in the country, which has increased over the last decade. However, a large portion of the working age population is deemed not economically active, and there are also 9,579 people with various qualifications, registered with the National Employment Centre between 2018 and 2022, seeking employment. The 2017 census data shows total male labour force participation rate (LFPR) was 74.6%, whereas for females it was only 37.4%. This indicates that approximately 63% of the potential female workforce is currently not engaged in any type of paid work—a significant loss of human capital.

Table 3: Economically active population

Labour force category	1996 census	2007 census	2017 census
Population aged 15+	500,913	594,150	625,099
Economically active	297,770	326,988	356,789
Not economically active	203,143	267,162	268,310

Source: Table created by authors with data from FBoS

The other meaningful data collected by FBoS is captured through the employment survey. This data is disaggregated by wage (aligned with skills occupations) and salary (aligned with professional occupations). Table 4 presents the data over three years, which shows that the number of wage earners has increased by 2019, whereas salary earners have decreased. The data also shows that approximately 60% of employment opportunities are in the wage occupations, which suggests that the highest employment is in the skills area (TVET). The data on employment by occupation groups[14] shows that occupational groups such as service workers (retail and marketing workers), elementary occupations, plant and machinery operators, craft and related workers, and clerks make up the bulk of wage workers.

Table 4: Employment by wage and salary earners

	2017	2018	2019	2020	2021
Total	174,833	176,781	180,106	n/a	n/a
Wage	103,093	103,824	107,922	n/a	n/a
Salary	72,740	72,957	72,184	n/a	n/a

Source: FBoS. NB—this does not include self-employed and those in the subsistence economy.

Considering low female LFPR, people seeking employment and those not economically active, it appears there may be room to increase the supply of qualified workforce to sustain and expand economic growth and development. Carefully planned training, reskilling, upskilling etc. is necessary to attract the cohort that is currently not engaged in any economic activity.

[14] Annual Paid Employment Statistic. FBoS Release No 31, p.9. 2020. https://www.statsfiji.gov.fj/statistics/social-statistics/employment-statistics44.html

2: Human Capital Challenges and Demand

Against the above contextual background, this section discusses global trends, juxtaposed with Fijian public and private stakeholders' interview comments, policy and strategic planning documents reviewed, and information collected during consultations regarding current human capital challenges. These are presented under the following headings:

- adequate supply
- quality and relevance
- national and international benchmarking
- embracing IT in work design
- work ethics and professionalism
- workforce mobility
- workforce import
- salary/condition of employment.

Adequate supply of population

Almost all OECD countries are experiencing low birthrates and an escalating ageing population. This is seriously impacting the supply of adequate workforce to support economic expansion and development. Policy actions such as increased immigration, including refugee settlement, and workforce imports are being considered as options to ensure continuous supply of the required workforce in many developed economies. In contrast, there is large population growth in many Southeast Asian and African countries, making them potential source of future workforce imports.

The above scenario is equally relevant to the Pacific region including Fiji, where a guaranteed supply of adequate workers may become increasingly problematic and is confounded by the recently increased workforce mobility. Fiji is already importing workers from Bangladesh and the Philippines. In Fiji, the low female LFPR (37.4% in 2017), the economically non-active cohorts (see Table 3) and the 1,224 people with only primary and secondary education listed with the National Employment Centre seeking jobs, provide a pool of people who can potentially help combat the emerging workforce shortage challenges. These cohorts will require necessary training, upskilling and reskilling to prepare them to be productive participants in the Fijian workforce.

The limited supply of workforce has led governments and employers to consider alternative 'design of work practices' that are less labour intensive and may be supported by increased use of technology, as is being considered in many OECD countries including regional countries like Australia and New Zealand. This will require a new cohort of IT experts specialising in AI and IDT systems design and maintenance, who currently may not be available in Fiji but should be taken into consideration by the higher education providers in the country.

To illustrate the magnitude of the supply issue, the re-opening of Westin and the rebranded Pullman around mid-2023 in Nadi is estimated to require 1,000 new workers.[15] Furthermore, Investment Fiji Ltd projections show there is a need for over 21,000 people, including staff for additional new hotels with 600 beds in the next two years. Timely supply of this magnitude of qualified workers, not just for running hotels but also for construction, to build/renovate and maintain the hotels, may not be possible based on current training providers' capacities. Ensuring investor confidence, as noted by the Fijian prime minister[16], will depend on a capacity to supply qualified workforce in respective sectors to materialise the foreign investments as economic development and growth activities in the country.

Quality and relevance

Globally, there is a trend of increasing graduate unemployment in economies such as Australia, Korea and Japan. Fijian National Employment Centre data shows that, in 2022, there were approximately 400 people with higher education qualifications registered with the Centre looking for employment—this trend will increase as the large numbers of students currently in the system graduate and enter the employment market. Also, there are many graduates working in non-related jobs creating a mismatch of qualification and occupation types. Anecdotal evidence suggests there is an oversupply of lawyers in Fiji resulting in many law graduates work in administration and management jobs. The graduate unemployment trend has influenced the downward integration of higher education services to the TVET sector, reflecting a recognition that professional expertise in the twenty-first century is a combination of theoretical knowledge, practical skills and attitudes.[17] The above conceptualisations blur the boundaries of traditional post-secondary education systems and underpin the emergence of dual sector universities and industry-based training. This convergence of knowledge and skill was a consistent message by industry stakeholders in Fiji who stated;

> *'having an academic qualification is not the same as having competence to perform well in their respective profession*'.

The importance of professional practice knowledge and skills was also illustrated by the Director of Nursing, who shared data showing every year approximately 5% of nursing graduates fail the Nursing Registration Examination—a practice-based examination and a prerequisite for employment in the Fijian health system.

Partnership with industry and professional associations to ensure quality and relevance is becoming a norm, rather than an exception, for post-secondary education institutions.

[15] Investments in the hotel sector include Seventh Heaven's new luxury overnight stay in the Mamanuca Group, a $47 million new Wananavu Beach Resort development currently underway in Rakiraki, a $10 million villa addition to Vacala Bay Resort, Taveuni, Crown Plaza to open soon in Wailoaloa (former Pullman), Hilton Garden Inn, Suva and Wyndham has added 90 rooms in Wailoaloa and 40 rooms in the Coral Coast. Siteri Sauvakacolo, 8 May 2023, https://www.fijitimes.com/fijian-tourism-expo-2023-more-cash-for-tourism/

[16] https://www.fijitimes.com/2023-nes-pm-rabuka-opens-economic-summit/ Accessed 24/4/23

[17] J.Sarvi and H. Pillay. Innovations in knowledge and learning for competitive higher education in Asia and the Pacific region. Mandaluyong City, Philippines: Asian Development Bank, 2015.

Industry placement and work-integrated learning with minimum mandated hours are key to quality programs in most professions. During the consultations with industry stakeholders, some questioned the capacity of local businesses in Fiji to provide access to work practice opportunities for the large number of students currently enrolled in higher education programs. Sufficient access to work-integrated learning can be a challenge in small island economies like Fiji, where opportunities for such work-integrated learning can be limited. Finding opportunities to provide work-integrated learning is a problem even in Australia and New Zealand, where they have enrolment caps to ensure sufficient workplace experience is provided. Some institutions in Australia and elsewhere have been legally challenged regarding the quality of programs and representations made regarding professional accreditations made by institutions.

Ever since higher education become a business, higher education leaders seem to have a mixed understanding of their role. Industry often leads innovations in products and services; therefore, by not engaging with them, the higher education sector risks increasingly becoming a supply-driven program. Blue-sky research, which requires degrees and post-grad qualifications, is done in specialist private research institutes in partnership with selected universities and is a small part of the local Fijian universities' function. Terms like 'job ready', 'world class', 'university driven', are external and global agendas and are great marketing tools and perhaps necessary, but at end of the day the performance of post-secondary education service providers in Fiji should be judged against agreed mandates as per their 'Charter' and the feedback from local stakeholders who employ their graduates. . Statements such as;

> *'not bowing to the demands of the industry because we create knowledge'.*

Statements like this illustrates a lack of familiarity with how global knowledge innovations happen and, more importantly, acknowledge a lack of appreciation of local workforce demands.[18] A small, not heavily industrialised economy like Fiji's requires fewer degree holders and more technician/diploma level workers. Traditional universities in Australia and New Zealand are also now seeing a reduction in higher education enrolments[19] and many are looking at culling 'high cost–low demand' programs to consolidate their offerings—this may be a signal for Fijian higher education institutions to redirect the overemphasis on some of the degree programs to more relevant level programs.

The local universities are competing and offering similar programs in a very small market; two universities offer medical degrees, three higher education institutions offer nursing degrees, two universities offer a suite of engineering courses, and three offer law, in a country of less than 890,000 people. Recently, University of the South Pacific (USP) indicated its intention to provide programs in the health sector, making it the third university providing health

[18] This was stated during the consultation meeting with USP's DVC Education on 17th November 2022.
[19] https://www.rnz.co.nz/news/national/463961/university-staff-face-redundancies-as-fewer-students-enrol. Accessed 23/4/23.

programs in this small country. Sustaining three medical colleges in a very small market may be difficult and risk seriously compromising quality. Access to well-resourced teaching hospitals that can support an appropriate level of practical experience is a key requisite for offering high-quality medical programs. Also, the availability of appropriately qualified and experienced medical professors to teach the various subject areas over the five-year program is central to ensuring a high quality of program. It was evident from a scan of UniFiji's website, that recruiting high-quality teaching/professional staff and running medical laboratory facilities is costly and a major challenge.[20] Both the above issues are of concern and directly impact on the quality of medical education and training in Fiji.

Similar challenges can be seen in the engineering programs at USP and FNU, a lack of mandated hours of practical work experience is impacting the professional competency of the graduates. USP and FNU also have staff recruitment challenges, which further impairs the ability to provide high-quality learning experiences. For example, at USP there is only one 'external' staff (not a permanent staff), supported by a few associate lecturers, to teach the four-year Civil Engineering degree program.[21] The industry stakeholders questioned this four-year program, which specialises graduates in structural engineering, water resource engineering, geotechnical engineering, and road and transport engineering in one program. Each of the above specialisation is a full degree in other international jurisdictions. It's unclear how much time is dedicated to each area in a four-year program and how the institution manages to teach the various specialisations with such limited staff capacity.

In the Information and digital technology (IDT) sector, the local industry stakeholders noted that current graduates produced by local higher education institutions are approximately ten years behind what the IDT industry needs, and many graduates had limited mathematics capability, which is essential for advanced IDT programming, designing AI algorithms and systems design work. The programs also lack inclusion of contemporary information digital technology applications in professional programs. There is an urgent need for local higher education institutions to review the relevance of their programs enhance contribution to the local economy, rather than chasing some generic international rankings.

National and international benchmarking

International benchmarking and accreditations may be useful to assist workforce mobility and for employers to make judgements about quality and equivalence or graduate capabilities. Many of these accreditations are based on self-reporting processes, often without much secondary validation of claims made in submissions. This can be problematic in a highly competitive and commercialised world. Some 'Ivy league' universities in US are withdrawing from the ranking systems raising concerns regarding the authenticity and value of the process.[22] The Fijian post-secondary education providers claim various international accreditations, but the local stakeholders seem to have a different view. At the degree level, organisations such as the Fiji Institute of Chartered Accountants, the Fiji Institute of Engineers,

[20] https://www.unifiji.ac.fj/umanand-prasad-school-of-medicine-staff/.
[21] https://www.usp.ac.fj/discipline-of-civil-engineering/staff-2/ Accessed 21 March 2023.
[22] https://www.economist.com/united-states/2023/06/08/columbia-university-ditches-the-college-ranking-system

Fiji Bankers Associations and the Nursing Council of Fiji have consistently mentioned the inability of graduates to readily embrace the respective work practices and a lack of familiarity with emerging IDT applications, despite the various accreditations the institutions may have achieved. The Fiji Roads Authority and Ministry of Infrastructure advised they invest up to 18 months equivalent in-house training (a cost to the recruiting organisation) to retrain new engineers to become productive. This means, in real time, it takes more than five years to become a professional engineer—national and international assessment of the engineering programs offered by both local universities differs. Similarly, at the TVET level, larger organisations such as the Fiji Sugar Corporation (FSC), Energy Fiji Limited (EFL), Telecom Fiji Limited (TFL), Marriott Group of hotels have all initiated in-house trade and certificate level training because of either a lack of relevance of current TVET programs, or an inability to service the demand and/or excessive costs for trainees.[23] The stakeholder consultations with

> *Marriott International's academy endeavours to provide opportunities in an environment that encourages personal and professional development. Through an integrated approach with different techniques and training from department leaders, Marriott will continue to put learning and development at the forefront of its career program.*

FSC, TFL showed there was very limited trust between the industry and the Fiji National University's TVET programs, many of which are not even registered with FHEC.

The post-secondary education service providers claim their graduates are internationally marketable, but there is no data to confirm that local graduates are in equivalent jobs to match their qualifications when they move overseas.[24] Anecdotal evidence suggests the opposite; for example, many nurses go overseas to work in retirement homes or health care facilities and not mainstream hospitals. Accounting graduates are employed as bookkeepers, administrators, lawyers and doctors have to sit national registration/board exams before the can be employed as professionals in the respective sectors. Similarly, as advised by the National Employment Centre, many 'skilled' workers opted to apply for Pacific Australia Labour Mobility (PALM) projects as 'semi-skilled' or 'unskilled' just to go abroad—so it may not be simple to claim international employment equivalence. The challenge for post-secondary education service providers is to balance the response to local workforce demand

[23] https://fhta.com.fj/launch-of-marriott-training-academy-a-huge-success/

[24] The USP website notes: 'in 2022 STEMP **will apply**, to have the Civil Engineering program accredited under the Washington Accord. This will give students the **possibility** to have a degree equivalent to that awarded in New Zealand or Australia'. https://www.usp.ac.fj/discipline-of-civil-engineering/accreditation/. Accessed on 14 March 2023. Only two out of three Engineering programs at USP have received Engineering NZ accreditation in 2023. https://www.engineeringnz.org/engineer-tools/ethics-rules-standards/accredited-engineering-qualifications/accredited-four-year-engineering-degrees/. Of the five Computer Science programs at USP, only two have ACS accreditation.
FNU recently made a press release acknowledging only their two-year Diploma in Engineering programs have Engineering NZ's accreditation. https://www.engineeringnz.org/engineer-tools/ethics-rules-standards/accredited-engineering-qualifications/two-year-diplomas-engineering/

and, at the same time, support workforce mobility.[25] The current increased demand for workers in larger neighbouring countries seems to have skewed the focus in favour of education for export market—having any degree puts you in higher points categories for migration seems to be an incentive rather than specifics the programs. Exaggerated claims, such as those shown in Text Box 1 claiming UniFiji to be on par with Cambridge and St Andrews, are misleading and ill-informed journalism but can have significant influence on public perception. Unfortunately, no one corrects this type of false claim.

Text Box 1
UniFiji Receives International Accreditation by Quality Assurance Agency of the UK
The University of Fiji is now on par with an elite group of universities, including the Universities of Cambridge, St Andrews, London, after it met stringent quality benchmarks in a review.

While it is in the interest of Fijian students to seek good post-secondary education that increases their employability locally of internationally and develop ability to establish self-employed innovative enterprises, they must also avoid being exploited, locally or internationally.[26] TSLS should also seek clarification from FHEC or universities before giving scholarships and loans for certain programs. Limited resources and lack of appropriate legislation have prevented agencies such as the FHEC and the Fiji Consumer Council from validating claims made about program quality by the various post-secondary education providers. The ability to verify these claims would help protect education sector consumers as they navigate the exaggerated claims and statements bordering on misrepresentation in advocacy and marketing messaging by education providers.

Embracing information digital technology (IDT) and new business practices

The increased use of technology, such as technology-driven human resource and management tools, accounting software, digital diagnostic tools and artificial intelligence, is making traditional manual skills redundant as they no longer enhance the compatibility of the workforce or increase productivity. However, industry stakeholders believe that current education and training programs lack contemporary IDT application to enhance productivity. These IDT-driven products and services will require cognitive skills such as reading and interpreting electronic diagnostic tools, inserting correct inputs for diagnostic tools, data archiving and data science, coding, and interrogation of AI systems such as ChatGPT and others.

[25] Overseas work contributes to remittance revenue and help keep unemployment low in small island economies.
[26] There must be mechanisms in place (Fiji Consumer Council and FHEC) to ensure that students (consumers) have all the correct information and are not confused by innovative marketing. The recent situation with the Bachelor of Veterinary Science degree at Fiji National University is a good example to illustrate the risk of miscommunication or misinformation, and its time and financial cost to parents and students.

The construction industry has evolved with increased use of aluminium frames, composite materials, pre-stressed concrete panels, green technology in design and new tools suited to new materials. The finance sector, globally and in Fiji, is fully embracing digital business practices. Increasingly, AI-driven accounting packages are being adopted by global accounting firms. Management and the governance sector use IDT tools for scheduling work and resourcing, inventory management etc. The transport sector is rapidly adopting hybrid and electric cars, motorcycles and push bikes. Much of the IDT skills gap is in 'core' skills positions are cabling skills, system integrators to implement and maintain system, automated accounting and sales, biometrics cyber security and surveillance, information/data curation and analytics, scheduling and logistic, formal and informal online self-learning, database management, multimedia and design, productivity applications.

Despite these innovations happening in Fijian industries, new graduates seem to lack the necessary digital skills and capacity to adopt new work practices, as pointed out by the Fiji Institute of Accountants, Fiji Institute of Engineers, Fiji Institute of Bankers and various other industry stakeholders.

These are skills that is equally valued by international recruiters and considered critical for the global digital transformation. Again, there is a need for post-secondary service providers to urgently review and align their programs to match with the advancement happening in local industry. Some of core skills noted by the IDT industry experts during consultations, and considered missing in current education and training programs are:

Given the continuous evolution of technology, it is increasingly being left to individuals to develop marketable skills to stay current with their respective industry sectors. Professional upskilling and retraining programs currently provided by the National Training and Productivity Centre (NTPC) may not be sustainable, given the rate of change happening in workplaces. The culture of investing in self-development as seen in many developed economies, is only possible when workers are sufficiently incentivised through good remuneration and have been educated in how to engage in continuous professional self-development to update their knowledge and skills.

Work ethics and performance

The employer consultations concurred that there was an increased sense of apathy, a lack of passion and a reluctance to take responsibility among workers. Work is seen as transactional—input and output, with limited emotional involvement. Post-pandemic, an increase in remote working and a lack of face-to-face interactions have created a new perspective that has eroded the importance of personal grooming and presentation. This personal characteristic is considered particularly important in the hotel and tourism, and health sectors, which require human interaction as central to their work. In some sectors, employers mentioned witnessing an increased absenteeism; in others, there seems to be lack of ownership and responsibility for the services employees provide.

As noted by various stakeholders, attitude and values related to human capital development begin at home, community and school levels, which needs further investigation as core

employment skills. The Sheraton Hotel at Denarau has leveraged 'cultural capital' by involving the chiefs of the villages linked to the Denarau Development and created a shared approach to educate recruits about expected personal characteristics and self-responsibilities. Organisations around the world, including in Fiji, are now introducing orientation programs and continuous counselling to change employee behaviours. Post-COVID-19, many developed economies have adopted more flexible working arrangements and focused on outcomes instead of inputs, which may suit Generation Z workers—this has implications for soft skills training in self-directedness, self-responsibility, self-management etc. Some large organisations, such as BSP Life & Banks, now include cognitive and emotional intelligence tests in their recruitment procedure and it's a growing human resource practice in Fiji to ensure that recruits have the right values and attitudes.[27]

Regulatory issues and quality monitoring

Regulating and monitoring the quality of post-secondary education and training has been a challenge in Fiji. Balancing compliance and, at the same time, encouraging innovation in the sector, while ensuring quality and relevance of education and training programs to match the industry standards and workforce demands in Fiji, is a complex task. The government established the Fiji Higher Education Commission for this role but the increase of post-secondary service providers in the country, plus the regional role of USP, warrants a review of the FHEC legislations to enable them to be an effective regulator. Hopefully through the current legislative review, the role of FHEC as a quality and relevance regulator may be further clarified and strengthened. FHEC's role is not to set standards but to monitor compliance of standards agreed by respective professional experts (Fiji Medical Council, Fiji Institute of Engineers, Institutes of Accountants, Fiji Nursing Council, National Skills Council) and the education service providers. Mechanisms to facilitate regular discussions between the regulator, the professional expert panels and the service providers can help increase the relevance of the programs. It should be able to seek technical advice from these professional organisations to evaluate/audit all programs. FHEC should be sufficiently resourced to effectively perform its role; it appears that many of the current post-secondary education and training programs have not been registered and/or audited for a very long time. As noted elsewhere in this report, some qualifications may require urgent review and revision to accurately represent the needs of twenty-first century workplaces. For instance, there is a difference between having an engineering or medical science degree and being a practising engineer or medical practitioner—something the FHEC should urgently review to improve the quality and relevance of the programs.

A consistent message from the industry stakeholders was that the government's financing of scholarships for post-secondary programs should be carefully reviewed for programs that are complaint with industry minimum standards, quality, relevance, and significance to local industries.

[27] Considering the demographic data of Fiji, Generation Z and Millennial groups will only be increasing in the workforce. https://www.rbf.gov.fj/statistics/economic-and-financial-statistics/#1595821784520-f34abda0-8700

The limitations of FHEC confounds the work of TSLS who depend on their oversight assessment of programs to guide the funding areas and levels of the programs.

In the TVET sector, the government has established a working group to review global practices and create a National Skills Council[28], with an increased role of industry to set standards. The current supply-side TVET program development by academics and education experts creates a mismatch between the TVET program and industry needs. The separation between standards setting and service delivery is necessary to avoid conflict and collusion.[29]

Workforce mobility

In a globalised world, workforce mobility is here to stay and if anything, it will increase. It has both advantages and disadvantages. The World Bank notes that the desire to seek new jobs locally or abroad is driven by various reasons, such as conflict and political instability, income and conditions of living, and future life prospects.[30] The latter two factors are more likely to impact the Fijian context. To appreciate Fiji's human capital demand, it is necessary to understand the external pull factors that affect the Fijian workforce, such as the skill shortage in neighbouring countries (Australia, New Zealand and the USA). The post-pandemic recovery in these countries has seen an escalation of skill shortages, confounded by ageing populations, lack of international student workers and working holiday tourists, and increased self-employment. These factors in the neighbouring countries will increase workforce mobility and exacerbate the workforce situation in Fiji for years to come.

International pull factors. The DFAT-supported PALM scheme allows Australian companies to recruit workers from the Pacific region, including Fiji. [31,32] They can recruit workers for seasonal jobs for up to nine months, or for longer-term roles for between one and four years in unskilled, low-skilled and semi-skilled jobs. This initially started as an option for unskilled Fijian workers to do fruit-picking during specific seasons (seasonal worker program) but now it is expanded to include semi-skilled and skilled workers who may work for up to four years under the scheme.[33] Apart from the PALM workers, relaxed student visa conditions with a favourable 'working while studying' arrangement and permission to remain in Australia for two years after graduation and work full time are significant pull factors. Also, more recently, the Australian government announced 3,000 permanent migration visas for Pacific Islanders, of which a substantial number will be taken up by well qualified Fijian workers.

[28] See the Australian National Skills Commissioner Act 2020 and the role of ASQA in monitoring the quality of programs.
[29] Pillay,H and Naisele, E. (2018). Fiji Technical and Vocational Education Rapid Review, Fiji Higher Education Commission, Suva, Republic of Fiji.
[30] Luc Christiaensen, Alvaro Gonzalez and David Robalino. 2019. Migration and Jobs: Issues for the 21st Century. Social Protection and Jobs Global Practice, The World Bank Group.
[31] https://www.nationalskillscommission.gov.au/topics/skills-priority-list
[32] https://www.ey.com/en_au/economics/no-silver-bullet-for-skill-shortages
[33] https://www.palmscheme.gov.au/

While the PALM scheme and relaxed student visa conditions open opportunities for Fijian workers and students to study and work in Australia and earn Australian wages/salaries, they undermine local Fijian industries and thus have a serious impact on the local economy. The above schemes and opportunities provide benefits to individuals and their families through remittance, which is an important revenue source but may not directly contribute to building the Fijian economy. Given the current labour shortage in the larger neighbouring countries has not peaked yet[34], the attractive remuneration packages and work conditions across the Pacific region will continue to lure well-qualified Fijian workers. This mobility may remain a significant challenge for small economies like Fiji for years to come.

Table 5: Human capacity export and migration

	2018	2019	2020	2021	2022
Total exiting the country	16,608	19,529	6,908	4,722	22,302
Migration	4,944	5,365	1,019	1,193	5,335
Overseas employment	11,664	14,164	5,889	3,529	16,967
Pacific Labour Scheme (Aust)	--	95	282	457	2,742
Seasonal Worker Program (Aust)	300	416	46	187	1,053
Recognised seasonal employment (Aust)	387	497	324	70	261

Source: FBoS and National Employment Centre)

Table 5 shows the significant increase in overall export of Fijian human capital. Pre-COVID, the number of people going abroad for employment was 14,164, which has increased to 16,967 in 2022. The three categories of labour mobility offered by the Australian government are also noted in the above table, showing the significant increase in all categories in 2022. This trend will only increase, given the incentive offered by neighbouring larger economies. The data supplied by FBoS is macro data but the consultative interview with the Department of Immigration indicates that international pull factors are impacting across all sectors and all levels of the workforce, from unskilled to professionals. Unfortunately, disaggregated data by job type or sector level was not available.

As can be seen in Table 5, labour mobility is not new to Fiji, but the sudden escalation is of concern.[35] Given that many of the worker movements happen at short notice, the uncertainty can be very disruptive for employers because it creates unanticipated gaps in the workforce, which can significantly impact the operations of business and industries.

Local pull factors. At the local level, there is significant and continuous competition between large/small and rural/urban businesses, and across sectors in attracting workers. There is also a significant movement of the workforce from the public to the private sector, as noted by the Fiji Road Authority CEO and the administrator of Lautoka City Council. Both stakeholders

[34] The migration of nurses reached 800 last year; the demand will continue as the Australian government tries to meet the nurse/patient ratio in retirement homes and hospitals.

[35] The National Employment Centre highlighted challenges faced in the Australian Seasonal Worker Program, which was intended for unskilled and unemployed Fijians but the program is now recruiting skilled people who resign from their jobs to be classified unemployed so they can participate in the scheme because of attractive work conditions and wages. Furthermore, it has been suggested by industry stakeholders that many workers resigned to enrol as students in Australia because the moratorium on hours of work for student visas has been relaxed. Students can now work longer hours and earn Australian salaries while they obtain Australian qualifications to increase their migration prospects.

noted that, after considerable investment of time and in-house training, people leave for better paying jobs in the private sector. The differentiated pay system for similar occupations across different sectors motivates workers to change jobs and continuously seek better remuneration and work conditions.

In the tourism industry, the larger hotels in Denarau and Suva city have better work conditions, higher wages, and better access to schools and accommodation. The local workforce mobility is confounded by the limited availability of qualified workers and is having a significant impact on the remote hotels along the Coral Coast. Working in larger urban centres also provides a pathway to overseas jobs. In the absence of an effective national wages system and amid current labour shortage, the national competition for workers is serious: organisations with larger resources always win. Similar experience was noted in the engineering sector, where competition between large state-owned enterprises such as Fiji Sugar Corporation and Energy Fiji Limited for qualified technicians (particularly electricians) is becoming unsustainable. Employment with Energy Fiji Limited and Telecom Fiji Limited seems to be a perceived pathway to overseas work opportunities, as these two companies have established partnerships with similar companies overseas. It is unclear how small-to-medium enterprises (SMEs) recruit their trade technicians. It seems the current trade professionals are a mix of people from the informal sector comprised of Grade 12 graduates learning in the informal sector and some graduates from FNU.[36]

Most industry stakeholders said supply of well qualified tradesperson are 'invisible'.

Thus, many, including the Fiji Roads Authority and the hotel industry sector, said they have to train their own tradespeople (electricians, carpenters, plumbers, concreters, landscape and gardening experts, drainage specialists etc). While above narrative describes the trade sector, similar workforce shortage can be seen at the middle management occupations (F&B managers, housekeeping managers, chefs, duty managers, building supervisor, project managers).

Human capital import

Considering the seriousness of the current workforce shortage, confounded by the ever-increasing mobility and migration, the government needs to find ways to provide an appropriately qualified workforce for the national economic activities to remain sustainable, and continue to diversify and grow. The current shortage and mismatch of skills and qualifications is becoming a critical risk to the optimum operation of local businesses. As discussed earlier, Fiji has a limited pool of working age population. With losses of over 23,000 workers a year to emigration and regional employment, this pool becomes even smaller. Also, post-pandemic recovery has seen an increase in self-employment and home-run enterprises, further impacting the small pool of working age population. There may also be a small number of people in the working age category who require upskilling and/or reskilling to remain

[36] The feedback from Lautoka City Council consultations

productive in the workforce. The cumulative effect of all these constraints suggests that the pool of national working age population may not be sufficient to support all economic activities in the country.

Recognising this workforce limitation, something that is common to small island economies, the Fijian government has opened the option of importing human capital. Currently the major areas of human capital import are: building construction and civil works, information communication and digital technology, the tourism and hospitality sector, and, to a lesser extent, the manufacturing sector. As noted elsewhere in the report, as the competing demands for Fijian workers will only increase, the government needs to develop suitable policies to recruit skilled overseas workers to sustain and continue to grow the level of economic activities. To date, the experience of importing workforce has received mixed reactions, both from employers and foreign workers.

Fiji has always engaged foreign workers in specialist and/or senior management and leadership roles. More recently, however, even skilled workers such as tradespeople in the building and construction sector are being imported because employers cannot find local skilled workers. Currently, the majority of these skilled overseas workers are from Bangladesh and the Philippines, whereas management and leadership level recruits are from developed economies such as Australia, New Zealand, the United Kingdom and the United States of America. More disaggregate data will be helpful for planning future workforce demand and supply, and the implications for developing human capital import policies. Given the size of the potential Fijian labour force, importing labour, either specialist workers or otherwise, may be necessary to sustain, expand and diversify the Fijian economy. Thus, the government needs to review and streamline policies and procedures, increase transparency, and seek greater responsibility and accountability by the recruiting agents to avoid exploitation by the agents and/or local employers. International human rights and equity considerations should inform policy formulation to enhance and streamline the procedures for workforce imports.

Salary and incentives

A World Bank report[37] notes that the cost of living has a serious impact on quality of life, which is confounded by the income of individuals (wages and salaries). Table 6 shows the Fijian Consumer Price Index (CPI) rose annually over the six years from 2016 to 2021[38], reaching a cumulative increase of 10.8% in 2021.

[37] Luc Christiaensen, Alvaro Gonzalez and David Robalino. 2019. Migration and Jobs: Issues for the 21st Century. Social Protection and Jobs Global Practice, The World Bank Group.

[38] https://www.rbf.gov.fj/7-1-consumer-price-index-nov-22/

Table 6: Comparison between CPI and wage increase

Year	Consumer Price Index	Wage increase
2016	3.9	0.0
2017	2.8	0.0
2018	4.8	0.0
2019	-0.9	0.0
2020	-2.8	0.0
2021	3.0	0.0
	10.8	

Source: Aggregated from FBoS data.

While the cost of everyday goods was rising, official wages did not increase. In 2022, the minimum wage was revised to include progressive increments reaching to $4.00/hr in January 2023.[39] The adjustments to other sector-level wages because of this increase remain below the cumulative CPI in 2021.

The disparity between wages and the cost of living remains high; a small increase may not be sufficient to make any real impact on the family budget and to the lives of most workers. However, regulating the labour market can be tricky. Interventions in areas like job security and minimum wages highlight the differences between the role of government and the free market social contract between capital and labour, but in the end they all affect the livelihoods of people. The challenge is to strike a balance between enabling decent working conditions and incomes for employees and allowing employers the flexibility to run their operations efficiently and at a reasonable cost. Lack of due process to facilitate negotiation of an appropriate balance is encouraging workers to seek alternative means to supplement their household income to support their families. Text Box 2 illustrates what a typical family household budget may look like. There is urgent need to address the very low wage situation in the country. Any wage review should be mindful that, unlike large Western economies, in Fiji the subsistence economies can often be more attractive than working for low wages. As shown in the working age population data, the large number of people who are not involved in any form of paid employment may be involved in subsistence economy.

Text Box 2

Family income (estimate determined by averaging five household expenses)

Income: $4/hr x 9/hrs day x 5 days = $180 x 2 parents = $360/week or $18,720 annually. Currently this is below tax threshold.

Average weekly expenses

Electricity $10.50 and Water $3.00	$13.50
2 x children education—$1000/year	$20.00
House rent—$800/month	$200.00
Car/travel	$70.00
Internet/mobile phone	$20.00
Medical expenses	$10.00
Food and groceries	$(26.50)

Many people supplement their household budgets with either a second job and/or backyard gardens to make ends meet.

[39] Employment Relations (National Minimum Wage) (Amendment) Regulations 2022. GOVERNMENT OF FIJI GAZETTE SUPPLEMENT # 13, 7 April 2022.

The need to seek alternative jobs to supplement household budget seems to encourage absenteeism—a major concern expressed by the industry stakeholders. This behaviour is causing serious disruption in running local businesses. These second income activities are often 'cash in hand' jobs, encouraging an emerging a shadow economy. The search for additional private jobs by public sector workers, triggered by low wages, has seen workers constantly switching to more rewarding jobs, which in turn contributes to internal workforce mobility and exacerbates the public and private sector employers by the increased disruptions to business operations. Many private sector employers in Fiji are willingly paying workers up to $3/hr above the government-mandated wages to attract employees and reduce absenteeism. The private sector's willingness to pay these significantly higher wages encourages workers to move away from the public sector. This is very common among wage employees[40] across all public sectors.

Furthermore, the remittance and the itaukei land lease money received by many people may be influencing their choice not to engage in low-paid formal employment. Also, the various fragmented allowances (such as bus fare assistance, back to school allowances, food vouchers etc.) may not be necessary if people were paid decent wages. The transaction cost to administer these allowances can be significant, thus short-term reactionary actions may not reflect strategic planning. The government can then provide more targeted support to the small number of disadvantage groups in society. These are complex issues requiring more detailed evidence-based research and analysis. Also, the international economic models may not readily apply to the Pacific Islands where a subsistence economy is very strong and can discourage people from engaging in less rewarding, more stressful formal work. The potential of utilizing the fertile land and exploiting the natural resources can be very viable option.

Nevertheless, after a long absence, the tripartite mechanism involving the government, employers and workers to negotiate reasonable salaries and wages, has been reinstated by the government. Hopefully the tripartite mechanism can urgently deliver better balance regarding wages and incentives that suits all parties.

3: Diversifying and Expanding the Economy

Lessons from the pandemic, regular natural disasters, and the need to remain competitive in a global economy have encouraged the government to consider new business propositions to help diversify the economy. Through Investment Fiji Limited, the government has attracted over two billion dollars' worth of foreign investments in the last five years. These are spread across a wide range of business and sectors, with a projected cumulative human capital demand of 21,278 workers across a wide range of expertise[41]. This future demand is spread across many sectors and in some cases the expertise may also overlap traditional sector classifications, suggesting the new types of jobs which may require re-training programs.

[40] Communication with President of Warwick Hotel on the Coral Coast.

[41] The number of businesses in different sectors that have formally registered their interest with Fiji Investment Ltd, their estimated values and human resource demands can be seen on Investment Fiji's website. https://www.investmentfiji.org.fj/

BPO and KPO hub in Fiji

Business process outsourcing (BPOs) and Knowledge process outsourcing (KPOs) have been identified by Investment Fiji as one of the most attractive enterprises for foreign investors in Fiji. There seems to be sufficient commitment from both private and public sector stakeholders to creating a BPO hub in Fiji. This makes good business sense, considering Fiji's access to an educated population[42], reasonable IT infrastructure and the proximity to markets such as Australia and New Zealand. Some BPOs are already in operation in Fiji and have employed large numbers of people (see Mindpearl, Centacom, Greymouse and Packleader). The BPOs and KPOs sector may include a range of business types, from simple call centres (low-level skills) to accounting and legal document preparation (mid-level skills) to software engineering (high-level skills). More details regarding the nature of the BPO/KPO businesses will help inform the human capital service providers of the emerging workforce demands. The low-skill option tends to depend on a large supply of workers, as the turnover is usually high. The preference should be to target the high-end BPOs/KPOs driven by human capital expertise, rather than just low labour cost. To develop the BPO/KPO sector, human resources will be needed to deliver the services themselves, as well as to build the facilities and equip them appropriately with IT systems to host the BPO/KPO businesses. Ongoing maintenance and other support services will also be required. (See the section on TVET and skills development.)

Regional medical service centre

The government aspires to strengthen medical services and make the Lautoka Hospital a regional centre of choice for advanced medical services. This initiative received support from the Australian aid program to Fiji. There has also been some discussion on using the upgraded facilities for medical tourism as a way of value-adding to the existing successful Fijian tourism industry. To this end, the government has established a private–public partnership (PPP) with Aspen Medical[43] to upgrade the hospital's medical equipment and facilities (including maintenance), improve management and governance, and recruit high-quality experts to deliver the medical services. To realise the objective of this PPP, there will be a high need for human resources, including qualified medical specialists and specialist nurses with post-grad qualifications, technical staff to maintain and operate the complex equipment, highly qualified management and administrative personnel etc. This demand will be over and above the workforce required to maintain the public health services for all Fijians.

Currently, there are 1,457 registered doctors in the country, of which 405 have conditional registration and 8 have provisional registration.[44] 331 are private practitioners and, of the total registered doctors in the country, only 193 are registered as specialist doctors (general and vocational registration). There are 81 specialists, concentrated in eight specialisations:

[42] Fiji has a young, multi-cultural, vibrant and well-educated workforce—with 46% of the population under the age of 25 and a literacy rate of over 90%, which can be a very strong asset.

[43] https://aspenmedical.com.fj/

[44] The data on medical personnel was provided by the Registrar, Fiji Medical and Dental Secretariat, Suva. The current number of registered doctors exceeds SDG index threshold of 4.45 doctors per 1,000 population, which is a good achievement. https://data.worldbank.org/indicator/SH.MED.PHYS.ZS

internal medicine, gynaecology and anaesthetics being the highest. Many other areas, such as cardiology and diabetology (both of which have seen increased deaths in Fiji) have only one or two specialists for the entire country. To support the government's aspiration, supply of human capital for the high-level medical service is not just about numbers of doctors and nurses, but also their professional competency to perform complex medical procedures to a high standard. Quality of programs for doctors and nurses varies in Fiji. Consultations with Fiji medical services stakeholders raised issues of insufficient numbers and inappropriately qualified academics and professional staff, appropriateness of laboratories at some teaching institutions, and lack of access to teaching hospitals for internships and practical learning. While there has been high interest in medical courses, these need to be reviewed by the Fiji Higher Education Commission for quality and compliance.

In 2022, 824 nurses resigned from the public sector (see Table 7), either to join local private hospitals or to go overseas for employment and/or immigrate. As noted in the workforce mobility section in this report, the attraction of better pay and work conditions has seen a large number of nurses migrating to take up jobs, ranging from caregivers and retirement home nurses to nurses in mainstream hospitals. The recognition of high-quality programs offered by Fiji School of Medicine and the Sangam Institute of Technology, and the rigorous registration examination administered by the Fiji Nursing Council contribute to the quality of graduates and, in turn, high demand for Fijian nurses overseas. As shown in Table 7, starting from last year there has been a significant exodus from the nursing profession. The lack of disaggregated data prevents deeper analysis regarding the specialisation of the nurses leaving the Fijian health system—anecdotal evidence suggests many had extensive experience and may have been in specialist positions. The reluctance of higher education services to share data makes it difficult to understand numbers of trainees and post-grad specialists in the pipeline.

Table 7: Summary of nursing personnel from 2017–2022

Year	2017	2018	2019	2020	2021	2022
Number of nurses	3,044	3,005	3,210	3,924	3,290	2,658
Total nursing resignations	30	52	79	65	90	824

Source: Division of Nursing—Ministry of Health & Medical Services

To support a robust local health service, plus the Aspen PPP initiative to establish a Pacific Medical Services, investments in health education must be reviewed and better targeted to cover the required range of medical experts. Despite the data challenges, it is obvious the need to increase investment in training more nurses—both general nurses and specialist nurses—with an expectation to lose approximately 10–20% annually to other local and overseas health service providers.

Diversification of agriculture

The Fijian agriculture sector is a mix of commercial and subsistence farming, although commercial farming seems to dominate. In recent years the agriculture sector has increased its export market and is making significant contribution to Fijian economy. The sugar industry is one of the larger employers in the agriculture sector, particularly for older farmers and farm extension workers, but it is no longer considered very profitable as the global sugar price is

generally declining.[45] There is an urgent need to transition to high value agriculture crops, such as vanilla and cocoa, and expand existing crops like kava, cassava, ginger, fish, vegetables, seasonal fruits and forestry products to increase productivity and return of investments. Fiji's mahogany and pine schemes have huge export potential and will continue to require a qualified workforce. The agriculture sector in Fiji focuses not only on export products, but also on limiting imports and building national sustainability. Investment Fiji attracted 53 possible projects in the sector over the last five years, with employment opportunities for approximately 2,414 people. The required workforce in the sector is diverse, ranging from skilled farmers and plant operators to graduate researchers, managers, marketing and finance experts.

The workforce to support the diversification and expansion aspirations is currently achieved through two universities (FNU and USP) that provide both degree and TVET level agriculture programs. Unfortunately, only FNU's College of Agriculture, Forestry and Fisheries (CAFF) data is presented in Table 8. The disaggregated student data from CAFF, by course of study separately for TVET and the higher education sectors can be seen in Appendix 1. An interesting revelation in this data is the level of interest from private self-funded students in the program, which is more than was expected. Combined (TVET Plus HE) private self-funded cohort over the last 4 years in agriculture sector was approximately 40%. This is high particularly when the sector is not very popular among the young school leavers. A review of the number of students enrolled vs those graduating shows a very high attrition in the CAFF programs. It is unfortunate that further CAFF data plus data from the rest of the Colleges in FNU could not be accessed because of the recent leadership disruptions, which paused the supply of all other requested data.

Table 8: Total enrolment in College of Agriculture, Forestry and Fisheries (CAFF) at FNU

College CAFF																
Program	**2019**				**2020**				**2021**				**2022**			
	Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored
TE	768	118	121	647	750	241	165	444	636	117	165	355	536	69	437	99
TVET	228	100	100	128	154	49	105	49	98	40	86	12	129	11	104	25

Source: Data supplied by FNU.

Manufacturing and MSME enterprises

Micro, small and medium enterprises (MSMEs) form the backbone of the Fijian economy.[46] MSME projects aligned to national development priorities as outlined in the 5-Year and 20-Year National Development Plan, the Green Growth Framework, narrative of the Blue-economy and the emerging circular economy, all present opportunities for innovation and

[45] World Bank report 2023

[46] They contribute over 18% of the GDP and provide employment for approximately 60% of the Fijian labour force. https://www.mitt.gov.fj/wp-content/uploads/2020/02/MSME-Fiji-Policy-Statement-approved20325.pdf

expansion. MSMEs include a range of business types: packaging, transport and freight movement, logistics and distribution, automotive and mechanical services, retail, confectioneries, and other food processing etc. However, MSMEs also face challenges regarding adequate supply of qualified workforce to support their businesses and ensure sustainable operation. The majority of workers in this sector are from the TVET area and, unfortunately, as noted previously, the stakeholders consider TVET training in Fiji of low quality and not readily accessible. Some local MSMEs are adopting automation in production and IT applications in manufacturing, management, accounting, and inventory control etc., to resolve workforce supply issues. These workplace redesign and reskilling of staff are not easily achieved and can be at a significant cost to businesses. As noted elsewhere in this report, instead of building appropriate human capacity to service the various types of Fijian industry, there is overemphasis on supporting low-quality, unaccredited four-year university degrees. For local MSME industries the accredited two-year diploma is perhaps more appropriate for the current industry demand, and it will align better with the salary level for the job types, helping balance productivity against salary cost for these MSM enterprises.

An emerging area within MSMEs is the cultural and creative industries[47], which in Australia was worth $111.7B to the economy in 2016–17 (6.4% of GDP). The largest contributors were design (49.8%), fashion (16.6%), and broadcasting, electronic or digital media, and film (11.3%). Fiji has a rich culture and there is an emerging cohort who are capturing this on various digital platforms, although most are fragmented initiatives. To embrace and promote this innovative sector will require human talent and skills, which in turn will depend on more responsive post-secondary education training programs.

4: Human Capital Supply Challenges

This section will treat human capital as (i) TVET qualification for skills- and wage-based occupations (FQF levels 3–6) and (ii) higher education as knowledge qualification for salary-based professional occupations (FQF levels 7–10). Currently there is a huge imbalance in investments between the types of human capital prepared and what is required by the industry to support the national economic growth. The push for everyone to undertake university degrees, even if they are not ready for it, has resulted in high attrition rates creating a significant cost to the taxpayer. This imbalance is being continued, despite the knowledge that 65–70% of employment opportunities in Fiji are in the TVET-related occupations. To correct this imbalance and align to the national human capital needs will require strong political will and sound technical advice. The discussion below examines the capacity of the post-secondary education system to address the national workforce demands.

Vocational education sector

Despite the workforce and employment data discussed earlier showing that the highest employment opportunities in the country are in the vocational skills area, the quality is declining or becoming obsolete, and supply of vocational skills graduates has been significantly reduced. The unfortunate disruption of the TVET sector, as a consequence of the

[47] https://www.infrastructure.gov.au/sites/default/files/documents/growing-australias-creative-industry-position-paper--abac--march2022.pdf

establishment of FNU, has had significant impact on the supply of well qualified skilled workers to support social and economic growth. A lack of understanding of the mechanics of a dual-sector university, confounded by a constant push to make it obligatory that TVET courses must articulate to a higher education degree offerings, undermined provisioning of TVET at FNU and USP. Furthermore, a lack of clarity in governance and financing of TVET programs, including the industry-levy for apprenticeship program, has seriously marginalised the TVET sector.[48] Consultation with industry stakeholders indicated that current employers consider TVET as 'invisible' in Fiji and have defaulted to recruiting Grade 12 students and training them in-house.

Fiji National University: the main TVET service provider

The allocation of the industry training levy to workplace insurance, and to FNU to manage the program, created a serious conflict of interest and undermined a very effective apprenticeship system that previously existed in the country.[49] Despite recommendation of the Technical and Vocational Education Rapid Review, commissioned by FHEC, not much has been reformed to date. The governance and role of industry is still marginal, resulting in an emergence of supply-side driven training programs and self-validation of quality by the service providers, and privileging FNU as a monopoly for TVET service provision. There is also lack of clarity regarding the quality/standards of TVET programs, which typically is a function of the National Skills Council and the industry advisory boards who set the minimum knowledge and skills standards for respective industries. The service providers, such as FNU and USP plus others, may respond differently (leveraging their individual competitive advantage) to deliver the training to agreed standards. FHEC typically should oversee this, to ensure high levels of congruence between the industry standards and the programs delivered by the TVET service providers. The NTPC, which is conducting trade tests, is a service provider and a regulator for trade tests, as well as a department within FNU contributing to its revenue generation. The government is aware of the mixed and overlapping roles and is currently considering establishing a National Skills Council[50] and giving a bigger role to industry. Such an approach will provide a legal framework for all stakeholders to engage with the TVET sector and open the TVET service provider market through a regulated and monitored framework, as can be seen in many other international jurisdictions.

The current government support for education is not fully open to all providers (all providers cannot access TSLS support) and thus does not encourage competition as it privileges the supply-side-driven FNU programs. There are private sector training providers such as the Marriott Academy for the hotel and tourism sector, and Microsoft and Cisco academies offering certificates in network engineering which are valued more by industry than a bachelor's degree in IT. These online academies with hybrid delivery modalities, plus others such as the Montfort Boys Town, Vivekananda Technical Centre, Centre for Appropriate Technology and Development (CATD), LDS Vocation Training Centre and Sangam Institute of

[48] https://unevoc.unesco.org/countryprofiles/docs/UNESCO_Funding-of-Training_Fiji.pdf

[49] Pillay,H and Naisele, E. (2018). *Fiji Technical and Vocational Education Rapid Review*, Fiji Higher Education Commission, Suva, Republic of Fiji.

[50] There is a working group established by MEHA, FHEC, FCEC, MoEP & IR, that is establishing the National Skills Council under a TVET Act.

Technology, should be considered for preparing the future Fijian workforce. Unlike public sector institutions, many of the industry training academies may not require public sector capital expenditure, just a per-student cost for the respective training service. This can provide huge savings to the public sector investment in TVET.

Over the last five years (see Table 9), 55 scholarships were given by TSLS to the TVET sector at FNU, of which only 26 (47%) graduated.[51] Similarly, for the TSLS loans, there were a total of 10,989 loans given to TVET students between 2018 and 2022, of which 7,195 (65%) graduated during that five-year period. As can be seen in the data, there is a very high attrition rate, which is lost investment. Given a lack of trust between the FNU TVET programs and industry stakeholders, consequently there is growing informal TVET training sector, but it is unclear how many TVET workers come through the informal sector.

Table 9: Government scholarships for TVET programs

PROGRAM	2018		2019		2020		2021		2022	
	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduate	Enrolled	Graduated	Enrolled	Graduated
Certificate IV in Aircraft Engineering	1	1	8	1	1	0	0	0	0	0
Certificate IV in Aircraft Maintenance Engineering (Mechanical)	5	5	3	7	6	1	0	5	0	0
Diploma in Land Surveying	0	0	5	0	1	0	7	0	3	5
Diploma of Culinary Arts and Management (LEVEL 5)	0	0	1	0	1	0	0	1	0	1
Diploma in Marine Engineering	0	0	0	0	0	0	0	0	4	0
Diploma in Architectural Drafting	0	0	0	0	0	1	0	0	3	0
Diploma in Nautical Science	0	0	0	0	0	0	0	0	6	0
Total	**6**	**6**	**17**	**8**	**9**	**2**	**7**	**6**	**16**	**6**

Source: Tertiary Scholarship and Loans Service, Fiji Government. Feb 2023

Furthermore, a review of TVET enrolment and completion data in one college at FNU, the major provider of TVET programs, shows that over the past four years, the College of Agriculture, Forestry and Fisheries (CAFF) [52] enrolled 609 students in TVET agriculture programs, of which 395 were private self-funded students (64%). Table 10 presents a summary of enrolments and completions, for sponsored vs private self-funded students for the last four years (2019–2022).

Table 10: TVET enrolment in CAFF at Fiji National University

College CAFF					
Major Field	**Program**	**2019**	**2020**	**2021**	**2022**

[51] All government scholarships and loans funding data were supplied by TSLS.

[52] Despite several attempts, FNU provided data from only the College of Agriculture, Forestry and Fisheries. There are seven colleges in FNU. Scholarship data was provided by TSLS.

		Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored
Agriculture	Certificate III in Commercial	1	3	1										3		3	
	Trade Diploma in Agriculture	101	45	50	51	75	21	48	27	44	20	35	9	76	6	67	9
Fisheries	Trade Diploma in Applied Fisheries	21	10	6	15	14		13		10		9	1	14	4	13	1
	Trade Diploma in Aquaculture	2	2		2						1			1		1	
Forestry	Trade Diploma in Agro Forestry	6	8	5	1	3	2	3		1		1		1		1	
	Trade Diploma in Forestry	31	14	1.3	18	19	6	10	9	18	6	17	1	16		15	1
Animal Husbandry and Veterinary	Trade Diploma in Wood Processing and Value Adding	9	2	3	6	4		2	2	1	1	1		2		2	
	Trade Diploma in Animal Husbandry	57	16	22	35	39	17	29	10	24	11	23	1	16	1	2	14
		228	**100**	**100**	**128**	**154**	**49**	**105**	**49**	**98**	**40**	**86**	**12**	**129**	**11**	**104**	**25**

Source: Supplied by Fiji National University.

The cumulative number of students who graduated in five years was 200. Given the large number of privately self-funded students in the program, perhaps government funding may be reviewed and reduced in sectors that do not require a very large number of government support. Unfortunately, the data from the remaining six schools at FNU was not available, which impedes capturing the full picture of the TVET service provisioning by FNU and the number of private self-funded and public-sponsored students that go through the FNU system. The unavailability of data prevented aggregation by professional programs within an institution and across institutions to map a national picture of the TVET workforce supply pathways, capacity and numbers in the pipeline.

Table 11: CATD—Nadave student numbers

Year	Enrolled	Graduated
2017	60	49
2018	60	50
2019	70	56
2020	67	53
2021	83	59
2022	101	---

Source: Data supplied by CATD, Nov 2022

As noted above, there are a few other TVET providers, such as the Centre for Appropriate Technology and Development (CATD) at Nadave (see Table 11). Courses offered here include automotive engineering, plumbing and sheet metals, welding and fabrication, carpentry and joinery, and business management. Montfort Boys Town also provides TVET training and offers programs in automotive, construction, and agriculture including aquafarming. These smaller institutions have small student enrolments and offer programs that are FQF level 3, while employers consider level 4 to be employment ready. Support could be provided to these institutions to build capacity to offer higher level programs and also allow them to access more government sponsored students. As noted earlier, many larger organisations, such as FSC and TFL, provide in-house skills training, as they are not satisfied with the current FNU training program. Despite having the largest employment numbers, the skills sector still elicits very low interest among students seeking

new careers and studying at FNU. Perhaps the most informative feedback from the employers has been their preference to recruit skilled workers from the informal sector or from grade 12 and train then in-house because of perceived quality issues and the opportunity costs for the students. There are several possible reasons for the low interest in TVET, including low wages, poor quality of programs and personal cost for training.

Text Box 3

A student seeking to study a Certificate 4 TVET course for four years will incur a loan of approx. $8,000–10,000. The lack of industry-trust in the program negatively affects job prospects and starting a career with a debt of $8,000–10,000 is not an attractive proposition. TSLS reported that, despite making many loans available for TVET, there were very few students who signed for it—which is not surprising in light of the above.

Opportunity cost analysis: If a Grade 12 student joins the informal TVET sector, after four years s/he would have earned and learned skills and perhaps be senior to a new TVET recruit from FNU joining the company with a large debt.

Recently TSLS trialled a grant scheme similar to the apprenticeship scheme, in partnership with the construction industry, involving work-integrated learning and training. It was found to be very effective, and all trainees were offered employment at the end of the program. TVET programs such as the apprenticeship scheme are typically funded by the industry levy fund, where apprentices receive an allowance while studying.

In Australia, the federal government covers most of the cost of TAFE education. Unfortunately, the Fijian model seems to have been redesigned, and TVET students are now expected to take out loans to pay for their studies. Expecting students to take loans for TVET training is not very attractive, as can be seen in the scenario presented in Text Box 3.

Higher education sector

As noted previously, the over-emphasis on higher education has led to five higher education institutions competing and offering degree-level programs in a very small country. Three are comprehensive institutions offering a variety of programs, ranging from medicine and engineering to business and humanities. The other two institutions offer humanities, education and theology programs. Since these institutions were unwilling to share any data, some data was mined from their annual reports posted on their respective websites. [53] Institutional data was reported as equivalent full-time students (EFTs) or as head count, some did not have the complete data sets for the last five years, and each institution captured data using different organisational codes (schools/colleges/departments etc.). Identifying program level data under each of the above codes was not possible, limiting meaningful disaggregation and corroboration for national level analysis aligned with potential occupational areas. Thus, it is not possible to analyse or make judgements about the possible workforce supply in the pipeline for the various occupations to support national human capital development. Nevertheless, student enrolment and graduation data between 2018 and 2020 was extracted from the annual reports of three of the institutions (see Appendix 2). Complete datasets were available for only 2019 and 2020—Table 12 presents cumulative totals for enrolments, annual graduations, and annual TSLS support for scholarships and loans for each year.

Table 12: Total enrolment, graduation and TSLS support 2019–2020 for three comprehensive universities

	Enrolment/Graduation				TSLS support			
	2019		2020		2019		2020	
	Enrolment	Graduation	Enrolment	Graduation	TSLS Scholarship	TSLS Loan	TSLS Scholarship	TSLS Loan
Fiji National University	26,063	3,219	23,778	3,721	327	2,738	221	2,180
Uni Fiji	4,639	528	3,381	833	51	254	36	343
USP[54]	10,835	3,737	9,898	1,555	395	1,651	347	1,666

The total cumulative enrolment numbers in 2020 from the three comprehensive universities was 26,979 head count, plus 9,898 EFTs (head count data is usually higher than EFTs data). Each year over 9,000 new graduates with higher education qualifications enter the workforce, which is a significant number for the Fijian economy. We know from the employment data, only 30% of job opportunities in Fiji are suited for degree-level qualifications.

[53] https://www.fnu.ac.fj/library/about-us/plans-reports/
https://www.usp.ac.fj/publications/archived-publications/
https://www.unifiji.ac.fj/annual-report/

[54] USP enrolment and graduation data is presented as EFTs and captures Fiji campuses only; the data does not separate regional students who may be studying at the Fiji campuses. The data also includes some TVET students.

Analysing the TSLS support for university programs shows that during the last five-year period (2018–2022) a total of 2,950 scholarships were offered for higher education programs. The scholarships were concentrated in the three comprehensive universities and across a range of specialisations. From these scholarships, 2,033 people successfully graduated, indicating a loss of approximately 30%. During the same period, 16,742 loans were given for higher education programs, of which only 7,837 students graduated (a loss of approximately 54%). This raises questions about the efficacy of these investments. Appendix 3a and 3b present a summary of the scholarships and loans given and the number of students who successfully graduated in the period 2018–2022.

Textbox 4

TSLS-supported students seem to make up approximately 50% of all the Fijian students undertaking higher education studies. The remaining students are self-funded. The exact ratio between TSLS sponsored and self-funded student varies from program to program and between the universities. In the absence of data from the universities, the above percentage is an estimate from the only data made available thus caution must be exercised when referring to the distributions.

The data mined from institutional annual reports shows that, in 2020, the area of Science, Technology and Engineering, which is offered at all three comprehensive universities, had 6011 (head count) and 4,249.5 EFT students most of whom would be graduating by 2024. In this area, TSLS supported 1,038 students[55] in the various engineering programs across two universities. Theoretically these students would be graduating in 2024. On actual TSLS graduation data for engineering programs between 2020 and 2022, over 400 graduate engineers joined the workforce. This does not include private self-funded students in engineering degree programs during the same period. Comparing this to existing trend, until 2019 the Fiji Institute of Engineers had a total of 128 registered engineers in the country. What it means for HCD supply is there will be a massive injection of graduate engineers in the Fijian workforce.

As noted elsewhere in this report, the challenge of providing industry placements for such large numbers will raise serious concerns about the quality of the programs. The TSLS data in Appendices 3a and 3b also shows a high attrition (almost 50%) in all engineering programs. If the attrition rate is so high for these merit-based scholarship holders, total attrition, including privately funded students, will be much higher. Despite the above, 2023 TSLS data presented in Text Box 5 illustrates the continued support for this oversubscribed program, despite issues of quality and relevance as raised in earlier discussions.

Text Box 5

In 2023, TSLS sponsored 96 scholarships, 144 loans and 240 student assistances, and there are also 479 private students in various engineering programs. This means potentially in four years' time there will be 959 engineers in the market looking for jobs.

Source: Data supplied by TSLS.

[55] TSLS support includes full scholarship plus loans and the data is from 2018 to 2022

Similar trends can be seen in other areas, aggregated data for Medicine, Nursing and Health Sciences shows that there were 3,371 students in this area in 2020 across two universities. From this group, TSLS supported 222 students for the MBBS program and 261 for Nursing—these figures do not include private self-funded students. In 2023, TSLS is supporting 80 students for the MBBS program and there are 333 private self-funded students in the same program spread across the two universities. While there is a reduction in public funded MBBS students, the private self-funded students seem to have taken up all the remaining seats. Again, the concern is about access to well-resourced teaching hospitals for practical training, and qualified staff to cater for over 600 students. These large student numbers also present the possibility of oversupply of general practitioner doctors, whereas demand for nurses has increased due to very high resignations from the public sector during 2022.

The Arts, Humanities and Education area is offered across all five higher education institutions, but we have data from only three universities. In 2020, this area had 4,041 head count and 4,822.8 EFT students who should be graduating in 2024. Education falls under this area and, in 2020, TSLS supported 1,688 students in various education programs. Again, this does not include private self-funded students. In 2023, TSLS is supporting another 1,694 students and there are 2,028 private self-financing students also enrolled in education program in 2023. Despite these large numbers of students supported through human capital investments in the pipeline or already out in the workforce, there still seems to be a shortage of teachers in the country.

Finally, the Business, Economics and Commerce area is offered by all three comprehensive universities and, in 2020, had a total of 6,462 head count and 3,994.7 EFT students enrolled in related programs. From these enrolments, TSLS supported 1,337 students in 2020 and another 500 in 2023. The scholarship holders in this group did better than most other programs in terms of completion rate, but the loan students' performance was similar to programs in other areas, with a dropout rate of above 50%. Again, lack of access to university data prevented capturing the total HCD investment in this sector.




Final remarks

As can be seen in the above discussion, there is much room to improve the efficacy of public sector investments in human capital development by (i) better targeting the demand areas and (ii) enhancing the selection requirements to attract students who have not only the academic ability but also the resilience to complete higher education programs. It also highlights the need for high-quality, relevant programs that align with the Fijian economy, even if they are provided by overseas education providers. As noted by industry stakeholders,

> *supporting poor quality and irrelevant programs offered by local providers does not help the local workforce development but supplements the income of higher education institutions and risks creating educated unemployed people.*

The analysis also notes that the private self-funding students are showing a high level of interest in human capital development investment, which the government should leverage so that public sector funds may be spent on other important public services, such as improving public hospital facilities, provide reliable and affordable water and power supply, and better-quality roads and other infrastructure. If certain education and training areas are well subscribed by the private self-funding students, it allows government to sponsor students in specialist programs that are either not available in Fiji or are important for growing the national economy but may not be favoured by self-funding students—such as the IT sector, which has been undersubscribed over the last five years. The government should immediately stop funding programs that lack quality due to lack of sufficient appropriately qualified staff, well equipped laboratories, and work-integrated learning opportunities.

Finally, it was unfortunate that cooperation from the local stakeholders, particularly the supply-side institutions, was limited, restricting the types of analysis that could be achieved. The timeline for this work was also compromised due to the extended engagement and repeated meetings and communications with stakeholders to obtain data, which never eventuated despite promises.[56] The significance of reviewing and analysing data was to support the empirical work and add credibility to the recommendations of the report. It will be prudent to conduct a similar follow-up study in 12 months after Recommendation # 1 is implemented. Hopefully, there will be meaningful codes and categories, robust data sets and a culture of data sharing by then.

5: Recommendations

Considering the above discussions, the recommendations are not focused on simply estimating the numbers of students to be funded by TSLS in the future, but also building a system that may itself undertake periodic HCD trend analysis to inform emerging and

[56] Despite supplying requested documents from high level offices of the Fijian Government, including DPM and the Minister of Finance, the post-secondary education service providers and some government departments still did not cooperate.

changing demands. Such a process will challenge post-secondary service providers not to become complacent but to remain agile and responsive to the emerging demands. In the twenty-first century, national and foreign investments are not only concerned with economic capital but also a supply of well-prepared human capital as one of the key indicators of a nations capacity to innovate and grow.

Recommendation # 1. A key lesson learned from this work is the urgency to establish a national planning department and set up mechanisms to regularly collect appropriate data from both private and public sector stakeholders and evaluate effectiveness of the HCD investments. Access to appropriate data is critical for planning and managing the demand and supply of an appropriately qualified workforce in the country. This data gap was noted in 2011, when efforts made to collect data found most of it is either incomplete, has not been disaggregated enough, or is not coded using common categories, making it difficult to undertake any useful analysis.[57] Unfortunately, the situation remains the same in 2023. It is important that the mechanisms capture all data and not just government investment through TSLS-sponsored students, as there is a large cohort of privately funded students who will also contribute to the national human capital demands.

Since the Fijian government provides grants to all higher education institutions, it should be made mandatory for these institutions to provide basic student data (enrolment, completion, dropout by programs etc.), either by semesters or annually. This should be an immediate action and made a condition of future grants to ensure national data is available to monitor and support a holistic analysis to better target future investments in HCD.

Recommendation # 2. The Fijian economy urgently requires large numbers of skilled people with FQF levels 3–6 qualifications (the trade and technician levels) . Currently, the overemphasis on more costly and less relevant degree programs has hugely undermined and starved the skills sector that provides the highest employment opportunity in the country. Degree holders are overqualified for the majority of job types available in the Fijian economy, and employers are reluctant to recruit them and pay graduate salaries for jobs that are typically for TVET sector workers.

Since the traditional institutions involved with the TVET sector (apprenticeship and advanced TVET programs) have been dismantled, and finances redirected elsewhere, it may take time to reorganise the TVET system. As discussed earlier, FNU as a dual sector university has failed to prepare and supply the skilled workforce and has lost the confidence of the industry. Nevertheless, the revitalisation of the TVET sector is in progress, through a joint working group made up of private and public sector stakeholders. The government should support and accelerate the re-establishment of an industry-led TVET system as soon as possible so appropriate industry-recognised programs registered with FQF levels 3–6 is available.

Recommendation # 3. Given the urgency of the demand for a skilled workforce, an immediate response is required. TSLS funds may be allocated to high priority TVET programs as ‘grants’, with students bonded to provide equivalent time working in local industries. Also, since the

[57]Maglen, L. Hall, M.W & Rokovunisei, M (2015) Research into the financing of technical and vocational education and training (TVET) in the Pacific: Fiji: country report. ACER, Melb. Australia.

current TVET providers' capacity is saturated due to limited workshop/lab facilities and staffing, and to avoid large capital investments and prolonged set-up time, previously trialled micro credentials with industry partners could be an option.[58] Since these industry partners have training facilities and in-house skills development programs, TSLS could buy seats in their in-house training programs. Some of the industry partners who could be approached to supplement the existing service providers include, but are not limited to, the following:

- Mechanical and electrical trade—FSC, EFL
- IDT and Telecommunication —TFL, Cisco Academy
- Hotel and tourism—Marriott Academy, IHG Academy
- Automotive—Vision Motors, Asco Motors
- Construction—Raghwan Construction, 4R Construction.

The above immediate action may be designed as a subset of the typical apprenticeship program and later integrated into the national TVET system once that is legally developed and operational.

Recommendation # 4. Relevance and quality of human capital development programs to suit the demands of Fijian industries should be central to any HCD investments. Post-secondary institutions should be agile to respond to the changing socioeconomic demands, and governments should not settle for compromised programs. Post-secondary education service providers must align their programs with the actual industry demands, which will require regular consultation between industry stakeholders, FHEC and higher education institutions.

As mentioned previously, the Fijian economy is small and not heavily industrialised. It requires a few workers with degree qualifications and a larger number with diploma qualifications for technician-level work, as reflected in the current national workforce data. This review strongly recommends reducing degree scholarships and increasing support for two-year diploma programs in engineering, and two/three-year paramedic and two-year trained assistant nurse courses. These should be designed to match the level of expertise, relevance to local industry demands and affordability required by employers. As can be seen in neighbouring countries, there is a need for more stratified job structures, which provide the required immediate workforce and set up pathways to upgrade qualifications when employment and/or career opportunities change.

Recommendation # 5. Government support for human capital development should be primarily responsive to national demands and local economy, rather than global workforce supply. While the recent increased workforce mobility is valued because of the remittance earning as foreign income, it must not come at a cost to building the local economy. (As discussed above, remittance does not directly help build Fiji's economy.) Therefore, a balanced approach to servicing the unique Fijian economy and supporting individuals for international workforce mobility is necessary.

[58] TSLS trialled micro credentialling with 300 student and construction industry partners, which was very successful with all students receiving job offers on graduating from the program. This approach is similar to the RTO system used in Australia.

Recommendation # 6. Considering the high attrition rates in both the tertiary scholarships and the loans schemes, there is an urgent need to review the criteria for funding scholarships and loans. Just because someone has achieved the required minimum score does not always mean they can successfully complete a university degree. For programs like medicine, Australian universities use GAMSAT[59] tests on top of the Grade 12 academic marks. There is a need to develop a better recruitment system to ensure higher completion rates.

While a general merit-based approach is advocated to ensure high completion rates, there is also a need to ensure equity for students from remote and maritime areas. Considering the reduced opportunities available to these students compared to urban ones, it will be prudent to allocate 15–20% of scholarships on equity-based selection.

Recommendation # 7. Finally, unlike Western economies, Pacific economies are complex, involving a robust subsistence economy, large remittance, and individual access to land lease monies. Nevertheless, the cost of living is a serious issue globally and it is no different in Fiji; it is impacting several levels of the economy. As noted in the above discussions, there is an urgent need to review wages to at least match the CPI and stop providing fragments of allowances which make people more dependent on government welfare—instead, workers should be given a decent wage so they can manage their own family budgets. Low wages are linked to absenteeism, worker apathy, and a lack of pride in and ownership of completed work and push the workforce towards a subsistence economy.

Any wage review must be linked to productivity, particularly when most employers mentioned the need to retrain graduates for up to 18 months through in-house training. This imposed not only a training cost but also loss of productivity during that period for the employer.

6: Human Capital Development Plan—2024–2030

The assumption used to develop this Human Capital Development Plan are as follows:

- The government support is to supplement privately self-funded investment in developing the national human capital; this is only approximately 40-50%[60] of the total HCD need for the country.
- The government will target investments in areas that it considers high priority and areas that are important but may not be attractive to privately funded students.

[59] https://gradready.com.au/medical-school-entry-requirements

[60] Since no data or policy and program documents were made available by any of the post-secondary institutions, and the data mined from annual reports is not disaggregated to program levels, it makes it difficult to link the enrolment numbers to possible occupation areas. The TSLS scholarships and loans data is available at program level and thus used as a proxy and is considered as accounting for 50% of the total students in respective programs contributing to the human capital needs in the country.

- The government mentioned that the majority of future HCD investments will be merit-based scholarships, with a percentage allocated on an equity basis. The estimated numbers shown in the plan below are for fully funded scholarships[61].
- The priority areas, and scope within each priority area for funding , are informed by the stakeholder consultations (see Appendix 4) held during the work undertaken for this project—noting the need to fix the TVET sector and not create overqualified personnel who expect higher wages, resulting in a compromise in productivity and the risk of unemployment.
- Degree students who started in 2018/2019 will be entering the employment market in 2024. Based on enrolment numbers currently noted in post-secondary institutions' annual reports and TSLS data, this will inject a large numbers of degree holders into Fiji's small economy, despite the high attrition rate. This will create a challenge of finding appropriate jobs. Hence, future investment projections must be mindful of this potential risk over supply.
- An allowance of 15% annual workforce attrition caused by natural causes and increased workforce mobility has been factored in the estimates. This should be reviewed after every two years to assess the workforce situation locally and in the neighbouring larger economies which currently exert strong pull factors.
- Unfortunately, since no data was made available by the immigration department on labour imports. This is an important data set that may inform the development of appropriate policy to facilitate the supply of imported workforce or provide targeted investments/incentive to local workforce to prepare them for employment in the shortage areas.

The estimated numbers are based on third-party advice on post-secondary institution capacities, which unfortunately could not be verified. Increasingly, professional expertise is linked to work-integrated learning in respective sectors—some professions have mandated hours of practice work required for students to successfully graduate. As noted in the above discussion, this lack of workplace practices and access to appropriate lab equipment has been a serious concern of most industry stakeholders regarding the capability of new graduates.

[61] The loan scheme to date had the highest attrition rate (in some cases over 50%), making it very inefficient and an expensive investment, and the recovery of the loan debt has become almost impossible. Thus, a more targeted and responsible approach is required.

Human Capital Development Plan (numbers in the table represent how many people are required in each professional area)

	2024	2025	2026	2027	2028	2029	2030
Priority Areas Cover FQF Levels 3–6							
Priority Area # 1: Engineering Services							
3–4-year Trade Certificate (apprenticeship) • Building and civil works • Automotive and heavy plants • Electrical and electronics • IT maintenance • Refrigeration and aircon • Renewable energy	400	400	400	400	400	400	400
2-year Trade Diploma program (Senior Technician) • Building and civil works projects • Automotive and heavy plants • Electrical and electronics • IT maintenance • Refrigeration and aircon • Renewable energy	200	200	200	200	200	200	200
Total	600	600	600	600	600	600	600
Priority Area # 2: Medical & Health Para-professionals							
1–2-year Program for ancillary staff • 1-year operators for medical imaging/pathology/dietician	30	30	30	30	30	30	30

	2024	2025	2026	2027	2028	2029	2030
• 2-year Dental hygienist							
1-2-year Diploma in Nursing (nursing assistants)	50	50	50	50	50	50	50
Total	80	80	80	80	80	80	80
Priority Area # 3: Information Technology Services							
2-year Trade Certificate • Data cabling • Hardware maintenance and repair • Phone and network setup and maintenance • Multimedia design and website maintenance • Wireless network installation	90	90	90	90	80	80	80
2-year Trade Diploma in IT (Technicians) • Phone and network setup and maintenance • Multimedia design and website maintenance • Wireless network installation	60	60	60	60	50	50	50
Total	150	150	150	150	130	130	130
Priority Area # 4: Business, Commerce & Retail Services							
2–3-year Certificate in Commerce • Retail management • Logistic planning and online inventory management • Project management	80	80	80	80	80	80	80

	2024	2025	2026	2027	2028	2029	2030
• Data entry and document archiving							
2-year Trade Diploma in Commerce • Accounting/bookkeeping with IT applications • Human resource management • Banking and finance administration	50	50	50	50	50	50	50
Total	130	130	130	130	130	130	130
Priority Area # 5: Hotel and Tourism							
4 -year Certificate Programs in H&T • Catering and cookery • Landscape and gardening • Tour guides and recreation activities specialists • Engineering maintenance • House keeping	100	100	100	100	100	100	100
2-year Diploma programs • Front office manager • F&B manager • Chefs • Human resources, guest relations, events organisers • Supervisor engineering maintenance • Management and inventory controls	80	80	80	80	80	80	80

	2024	2025	2026	2027	2028	2029	2030
Total	180	180	180	180	180	180	180

	2024	2025	2026	2027	2028	2029	2030
Priority Areas Cover FQF Levels 7–10							
Priority Area # 6: Engineering Services							
2-year Accredited Engineering Diploma (HE) in all specialisations • Electrical • Civil • Mechanical • Electronic	80	80	80	60	60	60	60
4-year Accredited Degree in Engineering (Local) • Mechanical • Electrical-electronic	20	20	20	15	15	15	15
4-year Accredited Degree in Engineering (overseas) • Hydrology • Civil engineering • Waste management engineering • Architecture • Renewable energy engineering • Quantity surveyors	25	25	25	15	15	15	15

	2024	2025	2026	2027	2028	2029	2030
• Construction management							
Total	125	125	125	90	90	90	90
Priority Area # 7: Medical & Health Services							
• 5-year MBBS degree	20	20	20	20	15	15	15
• 3-year Paramedic degree	10	10	10	10	10	10	10
• 4-year Dentist surgery degree	10	10	10	10	8	8	8
• 3-year Nursing degree [62]	150	150	150	150	100	100	100
• 3-year Medical imaging/pathology/dietician degree	10	10	10	10	10	10	10
• 3-year Pharmacy	8	8	8	5	5	5	5
Overseas Specialist Training • Postgrad—specialist doctors • Postgrad—specialist nurses	30	30	30	20	20	20	20
Total	238	238	238	225	168	168	168

[62] Need to be mindful of quality and not become a low-end factory for producing nurses. The number should be within the capacity of teaching institutions and hospitals to provide the necessary hospital placements for the mandated hours of practical training.

	2024	2025	2026	2027	2028	2029	2030
Priority Area # 8: Information Technology Services							
3-year degree in IT programs (if not available at FNU/USP then consider overseas programs) • Software engineering • Cyber security and network design • Systems design and analysist • Application development • AI integrated design and automation	100	100	100	100	80	80	80
2-year Diploma in IT (higher education program) • Information systems • Education technology • Library science and knowledge curation	20	20	20	20	20	20	20
Total	120	120	120	120	100	100	100
Priority Area # 9: Agriculture, Forestry & Fisheries							
3-year Agriculture degree program • Agriculture science • Food security and sustainable agriculture • Vet science • Farm management and productivity	15	15	15	15	10	10	10
3-year Forestry degree program • Sustainable forestry	15	15	15	15	10	10	10

	2024	2025	2026	2027	2028	2029	2030
• Forestry management • Forestry science							
3-year degree in Fisheries • Marine science • Fish technology • Aqua farming • Sustainable fishing	15	15	15	15	10	10	10
Total	45	45	45	45	30	30	30
Priority Area # 10: Business and Commerce							
3-year degree in Commerce • International and national marketing • Public and forensic accounting • Human resources and administration • Economics • Banking and finance • Management	90	90	90	90	70	70	70
3-year degree in Business/IT degree • Data science • Actuary/econometrics • Data analyst • Data and information curation	30	30	30	30	20	20	20
Total	120	120	120	120	90	90	90

	2024	2025	2026	2027	2028	2029	2030
Priority Area # 11: Education and Social Work							
3-year degree in Education • Primary teacher education • STEM and IT secondary education • Digital learning and instructional science	100	100	100	100	100	100	100
3-year degree in Community and social work • Community empowerment and SME innovations • Women participation in workforce • Gender equity and cultural practices • Counselling services	20	20	20	20	10	10	10
Total	120	120	120	120	110	110	110
Priority Area # 12: Science and Innovation							
3-year degree in Science • Environment and climate science • Marine science and sustainability • Chemist—industry plus environment • Water quality research • Renewable energy	20	20	20	20	20	20	20
Total	20	20	20	20	20	20	20

Summary of proposed government scholarship investments for the next three years. (The numbers in the table indicate how may scholarships are required in each professional area. The orange highlighted items are TVET programs)

Priority Programs	2024		2025		2026	Levels of programs	
						FQF 3–6/ TVET	FQF 7–10/ HE
Priority 1 & 6 Engineering Services							
3–4-year Trade certificate (including apprenticeship)	400		400		400		
2-year Trade diploma (Technician level)	200		200		200	600	
2-year diploma in Engineering (accredited HE program-)	80		80		80		
4-year degree in Engineering (Local accredited HE program)	20		20		20		
4-year degree in Engineering (Overseas)	25		25		25		125
sub-total	725		725		725		
Priority 2 & 7 Medical, Health and Para-Professional Services							
1–2-year para-professional programs	50		50		50		
1–2-year diploma in Nursing	50		50		50	100	
3-year degree in Nursing	150		150		150		
3-year degree in Pharmacy	8		8		8		
2–3-year medical imaging/pathology/dietician	10		10		10		
5-year degree in MBBS program	20		20		20		
3-year degree in Paramedic	10		10		10		
4-year degree in Dental surgery	10		10		10		
Post-grad specialists overseas (Nurses and Doctors)	30		30		30		238
sub-total	338		338		338		
Priority 3 & 8 Information Technology Services							
3–4-year Trade certificate	90		90		90		
2-year Trade diploma	60		60		60	150	
3-year degree in IT degree (HE program)	100		100		100		
2-year IT diploma (HE program)	20		20		20		120
sub-total	270		270		270		
Priority 5 Hotel and Tourism							
3–4-year certificate (including apprentice)	100		100		100	180	
2-year diploma	80		80		80		
sub-total	180		180		180		
Priority 9 Agriculture, Forestry and Fisheries							
3-year degree in Agriculture	15		15		15		
3-year degree in Forestry	15		15		15		
3-year degree in Fisheries	15		15		15		
sub-total	45		45		45		
Priority 4 & 10 Business, Commerce and Retail Services							
3-year certificate plus 2-year trade diploma in Commerce	80		80		80		
3-year certificate plus 2-year trade diploma in Commerce	50		50		50	130	
3-year degree in Business/ Commerce	90		90		90		
3-year degree in Business & IT	30		30		30		120
sub-total	250		250		250		
Priority 11 Education and Social Work							
3-year degree in Teaching	100		100		100		
3-year degree in Counselling	10		10		10		
2-year diploma in Social work (HE program)	20		20		20		130
sub-total	130		130		130		
Priority 12 Science Innovations							
3-year degree in Science	20		20		20		20
sub-total	20		20		20		
Annual total scholarships and grants	1938		1938		1930	1160	753

7: Appendices

Appendix 1

Fiji National University College of Agriculture, Forestry and Fisheries (CAFF) student profile data 2019-2022

College CAFF Higher Education Programs (FQF levels 7-10)

MAJOR FIELD	Program	2019				2020				2021				2022			
		Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored
Agriculture	Bachelor of Science in Agriculture	426	68	77	349	369	138	112	257	334	54	118	216	285	34	26	23
	Higher Education Diploma in Agri		1			1											
	Master of Science in Agriculture					13				27				31		26	5
Fisheries	Bachelor of Science in Fisheries	107	24	16	91	79	39	23	56	54	13	18	36	37	7	37	
	Higher Education Diploma in Fisheries	1			1												
Forestry	Bachelor of Science in Forestry	100	12	15	85	127	41			89	15			75	8	60	15
Animal Husbandry & Veterinary Science	Bachelor of Science in Animal Husbandry	5	3	5		6	4		5	2	16		1		14		
	Bachelor of Science in Animal Science					10		9		23		9	14	41		38	3
	Bachelor of Veterinary Science & Animal Husbandry Science)	129	10	8	121	143	19	18	125	103	19	15	88	55	6	2	53
Research	Doctor of Philosophy (Agriculture, Forestry, Fisheries and Veterinary					1		1		3		3		5		5	
	Master of Agriculture, Forestry, Fisheries and Veterinary Science by Research					1		1		1		1		7		7	
		768	118	121	647	750	241	165	444	636	117	165	355	536	69	437	99

College CAFF TVET Programs (FQF levels 3-6)

MAJOR FIELD	Program	2019				2020				2021				2022			
		Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored	Enrolled	Graduated	Private	Sponsored
Agriculture	Certificate III in Commercial Agriculture	1	3	1										3		3	
	Trade Diploma in Agriculture	101	45	50	51	75	21	48	27	44	20	35	9	76	6	67	9
Fisheries	Trade Diploma in Applied Fisheries	21	10	6	15	14		13		10	1	9		14	4	13	1
	Trade Diploma in Aquaculture	2	2		2						1			1		1	
Forestry	Trade Diploma in Agro Forestry	6	8	5	1	3	2	3		1		1		1		1	
	Trade Diploma in Forestry	31	14	1.3	18	19	6	10	9	18	6	17	1	16		15	1
	Trade Diploma in Wood Processing and Value Adding	9	2	3	6	4		2	2	1	1	1		2		2	
Animal Husbandry & Veterinary	Trade Diploma in Animal Husbandry	57	16	22	35	39	17	29	10	24	11	2.3	1	16	1	2	14
		228	100	100	128	154	49	105	49	98	40	86	12	129	11	104	25

Appendix 2

Summary of Enrolments and Graduations by Year and Institution

UNIVERSITY FIJI- Head count	2017	2018	2019		2020		2021	
	Enrol	Enrol	Enrol	Grad	Enrol	Grad	Enrol	Grad
Certificate in International Relations CIRA	85	95	0	n/a	n/a	n/a	n/a	n/a
Center for iTaukei Studies CIS	100	128	615	30	125	33	18	12
School of Business & Economics SOBE	435	428	555	87	616	210	462	143
School of Humanities & Arts SOHA	566	667	1432	177	801	317	929	237
Justice Devendra Pathik School of Law JDSOL	373	416	574	125	724	128	622	155
School of Science & Technology SOST	396	402	954	76	469	73	386	68
Umanand Prasad School of Medicine UPSM	552	562	509	33	646	122	784	79
Total	2507	2698	4639	528	3381	833	3201	694
TSLS scholarship	n/a	n/a	94		51		36	
TSLS Loan	n/a	n/a	408		254		343	

UNIVERSITY OF THE SOUTH PACIFIC-- Student (EFTs)	2016	2017	2018	2019	2020
	Enro —	Enro —	Enro —	Enro —	Enro —
Faculty of Arts, Law & Education FALE	3765.3	4138.2	3786.9	4720.7	4822.8
Faculty of Business & Economics FBE	5372	5730.1	4613.5	3957.7	3994.7
Faculty of Science, Technology & Environment FSTE	3915	4132.5	3419.1	3950.4	4249.5
Pacific TAFE	5349.4	5530.4	5279.3	5115.8	4481.4
PaCE-SD	89.7	91.8	83.0	97.0	109.5
Awards	3916.0	4256.0	6140.0	6021.0	3161.0
TOTAL EFTS	17695.9	18724.	19623.0	17181.7	17695.9
Enrolment by Regional Nationality- Fiji	9180.0	10320.2	11367.0	10835.7	9898.4
Graduation by Regional Nationality- Fiji	2550	2722	3290.0	3737	1555
TSLS Scholarship	n/a	n/a	297.0	395	347
TSLS Loan	n/a	n/a	2715.0	1651	1666

FIJI NATIONAL UNIVERSITY- Head count	2016	2017	2018	2019	2020
	Enro —	Enro —	Enro —	Enro —	Enro —
National Training and Productivity Centre	9363	10148	8791	7407	3410
College of Agriculture, Fisheries and Forestry	1252	1196	1170	1223	907
College of Business, Hospitality and Tourism Studies	4703	4602	4957	5437	5846
College of Engineering, Science and Technology	5589	5814	5718	5941	5542
College of Humanities and Education	2650	2911	2939	3220	3240
College of Medicine, Nursing and Health Sciences	2401	2394	2741	2835	2725
Total Head Count	25958	27065	26316	26063	23778
Graduation Numbers	3233	3078	2977	3219	3712
TSLS scholarship	n/a	n/a	232	327	221
TSLS Loan	n/a	n/a	3608	2738	2180

Appendix 3a

Annual Scholarship Given and Number Completed and Graduated (2018 – 2022)

Higher Education (FQF levels 7-10)	2018		2019		2020		2021		2022		Total	
PROGRAM	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated
Bachelor of Education	32	21	62	19	43	53	52	36	37	21	226	150
Bachelor of Agriculture	5	0	9	3	10	2	17	4	8	1	49	10
Bachelor of Arts	4	5	15	7	12	2	8	5	6	7	45	26
Bachelor of Arts (Environmental Management)	3	2	3	4	5	3	5	1	13	0	29	10
Bachelor of Commerce	184	97	250	149	212	175	125	145	102	163	873	729
Bachelor of Commerce in Tourism and Hospitality Management	7	13	18	9	15	4	0	19	0	5	40	50
Bachelor of Dental Surgery	15	12	7	19	0	11	0	0	4	15	26	57
Bachelor of Dietetics and Nutrition	3	2	5	2	3	3	0	3	1	3	12	13
Bachelor of Engineering (Electrical/Electronics)	38	6	29	14	23	19	31	15	23	25	144	79
Bachelor OF Engineering (Honours) (Civil Engineering)	42	10	67	8	61	12	48	22	56	22	274	74
Bachelor of Engineering (Mechanical)	20	0	10	6	5	14	11	8	12	6	58	34
Bachelor of Environmental Science	6	8	14	4	0	6	12	5	7	11	39	34
Bachelor of Geospatial Science	7	0	4	3	7	6	6	2	6	1	30	12
Bachelor of Medical Laboratory	17	10	17	8	19	10	15	10	12	15	80	53
Bachelor OF Medical Imaging Science	0	1	10	0	10	0	24	2	12	10	56	13
Bachelor of Medicine and Bachelor of Surgery	165	0	105	70	77	80	0	95	62	117	409	362
Bachelor of Nursing	11	15	36	25	22	9	16	4	21	52	106	105
Bachelor of Oral Heath	12	5	11	5	20	7	0	0	0	10	43	27
Bachelor of Pharmacy	20	16	16	15	11	7	29	0	24	6	100	44
Bachelor of Public Health	2	1	6	2	1	2	3	0	0	1	12	6
Bachelor of Science	2	17	11	13	15	3	10	3	12	4	50	40
Bachelor of Science (Marine Science)	2	2	8	6	3	0	8	0	3	3	24	11
Bachelor of Software Engineering	17	14	29	8	10	7	14	10	16	8	86	47
Bachelor of Urban and Reginal Planning (Honours)	1	2	4	0	1	0	10	0	1	0	17	2
Bachelor of Veterinary Science and Animal Husbandry	3	0	7	0	4	7	1	7	1	8	16	22
Bachelor of Physiotherapy	0	1	9	3	7	0	2	0	7	9	25	13
Bachelor of Science in Fisheries	0	0	0	0	0	0	1	0	0	0	1	0
Bachelor of Networks and Security	0	0	0	3	0	4	7	1	4	0	11	8
Bachelor of Arts (Marine Management)	0	0	0	0	1	0	4	0	0	0	5	0
Bachelor of Science in Forestry	0	0	0	2	0	0	1	0	2	0	3	2
Total	**618**	**260**	**762**	**407**	**597**	**446**	**460**	**397**	**452**	**523**	**2889**	**2033**

TVET (FQF Levels 3-6)	2018		2019		2020		2021		2022	
PROGRAM	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated
Certificate IV in Aircraft Engineering	1	1	8	1	1	0	0	0	0	0
Certificate IV in Aircraft Maintenance Engineering (Mechanical)	5	5	3	7	6	1	0	5	0	0
Diploma in Land Surveying	0	0	5	0	1	0	7	0	3	5
Diploma of Culinary Arts and Management (Level 5)	0	0	1	0	1	0	0	1	0	1
Diploma in Marine Engineering	0	0	0	0	0	0	0	0	4	0
Diploma in Architectural Drafting	0	0	0	0	0	1	0	0	3	0
Diploma in Nautical Science	0	0	0	0	0	0	0	0	6	0
Total	**6**	**6**	**17**	**8**	**9**	**2**	**7**	**6**	**16**	**6**

Appendix 3b

Annual Study loans Given and Number Competed and Graduated (2018-2020)

HIGHER EDUCATION (FQF LEVELS 7-10)	2018		2019		2020		2021		2022		Total	
PROGRAM	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated
Bachelor of Commerce (Accounting, Economics, Management, Finance, Information System, Human Resource Management, Business Marketing)	1328	456	1100	423	1125	428	869	526	347	240	4769	2073
Higher Education Diploma in Banking	3	2	4	0	0	1	0	3	0	0	7	6
Higher Education Diploma in Industrial Relations and Human Resource Management	15	5	6	0	4	2	1	4	0	1	26	12
Higher Education Diploma in Finance	2	0	0	0	0	0	0	0	0	0	2	0
Higher Education Diploma in Accounting	4	5	3	1	3	0	1	1	0	0	11	7
Higher Education Diploma in Management	4	2	1	1	0	1	1	0	3	0	9	4
Higher Education Certificate in Management	4	0	2	1	0	0	0	0	0	0	6	1
Higher Education Diploma in Economics	0	0	0	0	1	0	0	0	0	0	1	0
Diploma in Management	3	1	0	0	0	0	0	0	0	0	3	1
Professional Diploma in Business Management	55	25	10	41	0	13	0	3	0	0	65	82
Diploma in Management Studies	3	0	0	0	0	0	0	0	0	0	3	0
Diploma in Management Studies	1	0	2	0	2	0	1	0	0	0	6	0
Diploma in Economics	2	0	0	0	0	0	0	0	0	0	2	0
Bachelor of Commerce in Tourism Hospitality Management	216	25	206	18	180	32	8	63	30	34	640	172
Bachelor of Engineering (Civil Engineering)	53	11	63	24	87	11	135	21	72	16	410	83
Bachelor of Engineering (Electrical)	50	9	29	18	27	31	72	14	36	7	214	79
Bachelor of Engineering (Mechanical)	37	14	20	3	17	13	23	10	14	4	111	44
Bachelor of Science (Computer Science, Information System, Mathematics, Chemistry, Biology)	273	79	125	71	151	104	85	117	77	51	711	422
Bachelor of Software Engineering	31	2	27	6	35	5	32	8	43	8	168	29
Diploma in Information Systems	3	3	2	33	5	0	0	13	0	1	10	50
Bachelor of Information Technology	42	2	25	7	15	1	0	23	7	24	89	57
Bachelor of Networks and Security	22	0	13	0	9	0	25	0	22	2	91	2
Diploma in Computing	2	0	0	0	1	0	0	0	0	1	3	1
Bachelor of Library and information Systems	5	0	4	1	6	0	2	0	2	0	19	1
Higher Education Diploma in Library and Information Systems	0	0	1	0	0	0	0	0	0	0	1	0
Higher Education Certificate in Library and Information Systems	0	0	1	0	0	0	0	0	0	0	1	0
Bachelor of Education	879	324	701	170	584	410	597	345	373	214	3134	1463
Diploma in Education	66	59	158	33	30	34	21	37	2	27	277	190
Graduate Certificate in Education	6	0	0	0	0	0	0	1	0	5	6	6
Graduate Diploma in Teaching	18	3	4	7	3	20	0	2	0	0	25	32
Higher Education Certificate Teaching in Technical and Vocational Education snd Training	7	0	3	0	2	4	0	2	1	1	13	7
Certificate in Teaching (Primary)	2	0	0	0	0	0	0	0	0	0	2	0
Diploma in Teaching Itaukei Language, Literature & Culture (Secondary)	25	0	0	0	0	16	0	5	0	0	25	21
Diploma in Itaukei Language and Culture	1	1	0	0	1	2	1	0	0	0	3	3
Diploma in English Language and Literature	0	0	1	6	0	0	0	0	0	0	1	6
Diploma in Vernacular Language (Hindi)	0	0	2	0	0	2	0	0	0	0	2	2
Diploma in Social and Community Work	1	0	0	1	1	0	0	0	1	0	3	1
Bachelor of Geospatial Science	36	4	26	10	35	7	20	17	9	4	126	42
Diploma In Geospatial Science	1	0	6	1	1	0	0	0	0	1	8	2
Bachelor of Engineering (Honours) (Instrumentation & Control System)	2	0	0	0	0	0	0	0	0	0	2	0
Higher Education Diploma in Education	4	0	1	0	0	0	0	0	0	0	5	0
Health Services (MBBS, Pharmacy, Public Health, Dietetics and Nutrition, Health Promotion	68	83	54	51	69	65	72	36	46	36	309	271
Bachelor of Medical Laboratory Science	14	16	11	11	16	0	21	5	21	9	83	41

HIGHER EDUCATION (FQF LEVELS 7-10)	2018		2019		2020		2021		2022		Total	
PROGRAM	**Enrolled**	**Graduated**	**Enrolled**	**Graduated**	**Enrolled**	**Graduated**	**Enrolled**	**Graduated**	**Enrolled**	**Graduated**	**Enrolled**	**Graduated**
Bachelor of Medical Imaging Science	17	18	14	10	9	12	2	5	11	4	53	49
Bachelor of Physiotherapy	14	15	9	12	10	8	19	0	11	7	63	42
Bachelor of Nursing	252	205	200	67	261	185	273	92	271	287	1257	836
Bachelor of Nursing Post Registration (In-Services)	0	0	1	0	0	0	0	0	0	0	1	0
Bachelor of Dental Surgery	6	13	1	2	1	3	0	0	0	5	8	23
Bachelor of Health Services Management	7	2	4	0	0	3	21	3	2	0	34	8
Bachelor of Public Health & Primary Health Care	4	11	6	13	4	15	9	1	5	19	28	59
Bachelor of Oral Health	7	2	3	1	12	0	0	0	0	6	22	9
Higher Education Certificate in Health Services Management	1	0	0	0	0	0	0	0	0	0	1	0
Certificate in Phlebotomy	1	2	0	0	0	0	0	0	0	0	1	2
Bachelor in Theology1	3	1	2	4	0	1	0	2	0	0	5	8
Bachelor of Agriculture	194	52	118	74	88	87	36	65	30	39	466	317
Bachelor of Laws	281	68	188	85	234	79	135	76	24	72	862	380
Bachelor of Arts	278	51	242	63	241	99	128	79	93	42	982	334
Graduate Diploma in Legal Practice	17	18	12	0	28	18	29	5	0	16	86	57
Professional Diploma Legal Practice	43	7	35	0	42	0	0	0	0	1	120	8
Diploma in Leadership, Governance and Human Rights	2	0	0	2	2	3	0	1	1	1	5	7
Diploma in Police Management	1	0	0	0	0	0	0	1	0	0	1	1
Diploma in Prosecution	1	2	0	0	0	0	0	0	0	0	1	2
Diploma in Pacific Journalism	0	1	1	0	0	0	0	0	0	1	1	2
Certificate in Justice	0	0	1	0	0	0	0	0	0	0	1	0
Bachelor of Arts (Environmental Management)	36	33	25	27	25	37	25	28	3	27	114	152
Bachelor of Arts (Marine Management)	6	8	5	12	4	14	8	11	0	12	23	57
Higher Education Diploma in Environmental Management	1	0	1	0	1	1	0	0	0	0	3	1
Higher Education Diploma in Environmental Science	2	0	0	0	0	0	0	0	0	0	2	0
Bachelor of Environment	127	6	75	6	86	2	66	8	22	7	376	29
Bachelor of Science (Marine Science)	29	0	18	0	24	0	22	0	4	0	97	0
Bachelor of Science in Fisheries	28	3	14	21	11	25	5	12	3	5	61	66
Bachelor of Science in Animal Husbandry & Veterinary Science	19	5	11	9	16	13	6	22	8	7	60	56
Bachelor of Applied Social Science	0	0	1	0	4	0	5	0	4	0	14	0
Bachelor of Science in Forestry	30	7	19	8	18	27	11	13	9	7	87	62
Diploma in Land Surveying	26	5	19	4	18	2	16	6	58	5	137	22
Diploma in Land Management	1	0	2	0	0	0	0	0	0	0	3	0
Higher Education Diploma in Fisheries	1	0	0	0	0	0	0	0	0	0	1	0
Bachelor of Science (Food Technology)	5	1	3	2	4	3	4	4	4	1	20	11
Higher Education Diploma in Food Technology	1	0	1	0	0	1	0	0	0	1	2	2
Bachelor Bridging Program	9	0	1	0	1	0	0	0	0	0	11	0
Higher Education Diploma in Industrial Lab Technology	6	3	1	2	2	0	0	0	0	0	9	5
Bachelor of Urban & Regional Planning	9	0	10	0	10	0	24	3	9	3	62	6
Unclassified Studies	242	0	0	0	1	0	0	0	0	0	243	0
Bachelor of Net-Centric Computing	1	3	0	1	0	4	0	0	0	3	1	11
Diploma in Ocean Resource Management and Policy	1	0	0	0	0	0	0	0	0	0	1	0
Bachelor of Media and Communication	0	0	0	0	4	0	8	0	3	0	15	0
Total	**4997**	**1673**	**3654**	**1363**	**3571**	**1844**	**2839**	**1693**	**1681**	**1264**	**16742**	**7837**

TVET (FQF LEVELS 3-6)	2018		2019		2020		2021		2022		Total	
PROGRAM	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated
Accounting (TVET)	40	10	7	5	2	6	1	4	65	0	115	25
Office (Administration, Operation, Assistance Management) (TVET)	122	38	58	32	14	70	4	32	206	8	404	180
Banking (TVET)	23	9	18	2	3	1	0	8	87	0	131	20
Certificate IV in Human Resource Management	15	10	8	8	0	8	0	5	0	0	23	31
Diploma of Human Resource Management (Level 5)	90	16	30	35	2	29	0	14	0	1	122	95
Hospitality and Hotel Management (TVET)	72	17	61	13	11	7	0	11	81	4	225	52
Customs (TVET)	115	10	103	15	71	12	13	76	185	2	487	115
Diploma in Civil Engineering (TVET)	108	17	62	27	38	9	15	30	56	8	279	91
Electrical Engineering (TVET)	162	31	100	37	66	16	31	122	109	9	468	215
Automotive Electrical Engineering (TVET)	156	112	207	2	157	3	0	0	0	0	520	117
Automotive Engineering (TVET)	182	21	111	33	111	33	28	17	120	12	552	116
Electrical Fitter Mechanic (TVET)	96	0	137	0	134	104	0	0	0	0	367	104
Automotive Mechanical Engineering (TVET)	309	637	353	599	300	392	0	24	0	0	962	1652
Mechanical Engineering (TVET)	20	6	15	9	24	2	8	3	32	4	99	24
Diploma in Engineering (Telecommunication & Networking) (TVET)	10	0	4	4	1	4	4	1	12	1	31	10
Information Technology (TVET)	111	13	38	9	13	34	4	24	78	2	244	82
Engineering (Instrumentation & Control System) (TVET)	4	0	2	0	3	0	4	0	5	0	18	0
Electronics Engineering (TVET)	13	10	10	2	6	1	4	1	3	0	36	14
Marine Engineering (TVET)	9	0	8	0	6	2	6	2	15	0	44	4
Plant (Engineering/Maintenance)	31	2	7	2	15	7	11	1	11	1	75	13
Trade Diploma in Applied Computing	4	3	0	2	0	1	0	4	0	0	4	10
Diploma in Library and Information Services (Level 5)	14	1	1	3	2	6	0	0	0	1	17	11
Diploma in Early Childhood Education and Care (Level 5)	161	4	93	55	152	173	6	125	7	99	419	456
Certificate IV in Early Childhood Education and Care	56	60	13	80	5	32	1	3	3	2	78	177
Certificate III in Early Childhood and Care	0	63	5	53	1	51	0	1	0	0	6	168
Certificate III in Community Development	1	0	0	2	0	1	0	0	0	0	1	3
Certificate IV in Biomedical Engineering (TVET)	0	0	3	0	4	1	6	0	19	0	32	1
Certificate IV in Manufacturing Engineering (TVET)	1	0	1	0	2	0	0	0	0	1	4	1
Diploma in Renewable Energy Engineering (TVET)	1	2	1	1	0	0	0	1	3	0	5	4
Aircraft Engineering (TVET)	15	29	24	13	11	4	15	13	27	2	92	61
Enrolled Nursing (TVET)	31	49	32	31	9	7	10	2	27	22	109	111
Dental Technology (TVET)	5	6	5	6	4	3	0	0	0	1	14	16
Agriculture (TVET)	103	46	105	80	123	67	1	54	64	1	396	248
Applied Fisheries (TVET)	6	2	2	0	0	0	0	0	6	0	14	2
Animal Husbandry (TVET)	22	22	8	24	0	7	0	5	5	0	35	58
Nautical Science (TVET)	22	1	18	1	16	1	10	1	22	0	88	4
Trade Diploma in Aquaculture	6	3	0	2	0	0	0	1	1	0	7	6
Forestry (TVET)	10	6	6	15	2	1	0	3	7	0	25	25
Carpentry (TVET)	47	284	279	4	221	4	2	14	17	1	566	307
Construction (TVET)	1	0	3	284	2	0	1	6	4	0	11	290
Ship Building (TVET)	4	3	5	2	0	1	0	0	0	0	9	6
Geology, Mining and Quarry (TVET)	7	0	5	0	1	0	2	0	12	0	27	0
Fabrication and Welding (TVET)	80	2	98	2	78	56	0	13	17	0	273	73
Plumbing and Sheet Metal (TVET)	61	8	79	7	40	55	3	12	24	0	207	82
Joinery and Cabinet Making (TVET)	42	1	50	0	50	224	0	17	11	1	153	243

Road Transport Technology and Management (TVET)	7	1	4	4	2	3	1	4	8	1	22	13
Wood Processing and Value Adding (TVET)	3	2	1	0	0	0	0	0	0	0	4	2
Graphic (Design/Arts)	7	2	8	1	7	2	1	1	12	0	35	6
Fitting and Machining (TVET)	16	0	8	2	4	1	0	51	4	0	32	54
Bakery and Patisserie (TVET)	156	63	146	102	163	154	1	66	27	1	493	386
Restaurant Services (TVET)	10	0	6	0	2	0	0	0	2	0	20	0
Cookery (TVET)	733	321	464	440	534	301	0	75	18	0	1749	1137
Sports Science (TVET)	11	3	6	8	5	3	3	1	14	0	39	15
Certificate III In Hairdressing	1	4	3	1	0	1	0	0	5	0	9	6
Culinary Arts (TVET)	28	2	16	4	14	7	0	5	20	2	78	20
Refrigeration and Air Conditioning (TVET)	34	9	26	4	34	16	1	2	26	0	121	31
Architectural (TVET)	30	9	44	13	33	2	29	16	49	4	185	44
Occupational Health and Safety (TVET)	27	4	25	1	14	2	4	7	76	0	146	14
Clinical Laboratory Technology (TVET)	8	9	6	12	2	3	7	0	9	10	32	34
Quantity Surveying (TVET)	5	1	7	2	5	0	2	0	10	1	29	4
Certificate IV In Printing Technology (TVET)	4	3	1	1	0	0	0	0	0	0	5	4
Cisco Certified Network Associate	26	1	1	5	0	6	0	0	0	1	27	13
Commercial Pilot (Licence/Training)	7	10	10	0	6	6	0	1	0	10	23	27
National Certificate in Painting & Decoration (TVET)	15	0	15	0	15	12	0	3	0	0	45	15
National Certificate II in Body Works and Spray Painting (TVET)	5	0	22	0	4	0	0	1	0	0	31	1
Certificate IV In Film and Television Production	4	4	0	1	2	0	0	0	9	0	15	5
Certificate IV in Music	2	2	0	0	0	0	0	0	1	0	3	2
Trade Diploma in Front Line Management	1	0	0	0	0	0	0	0	0	0	1	0
Certificate IV in Ageing and Community Support Care	1	0	0	1	1	1	0	0	22	0	24	2
Certificate IV In Housekeeping and Accommodation Operations	1	0	0	0	0	0	0	0	3	0	4	0
Certificate in Child Care	16	5	0	3	0	0	0	0	0	0	16	8
Diploma of Counselling (Level 5)	5	4	2	5	0	11	0	5	0	4	7	29
Total	**3551**	**2013**	**2996**	**2111**	**2547**	**1966**	**239**	**888**	**1656**	**217**	**10989**	**7195**

Appendix 4

Stakeholder Consultation List

Government Line Ministries	
Deputy Prime Minister's Office	Ministry of Revenue and Customs
Ministry of Education	Ministry of Communication
Ministry of Finance	Public Service Commission (PSC)
Ministry of Employment, Productivity & Public Relations	Ministry of Women, Children & Poverty Alleviation
Ministry of Infrastructure	Fiji Roads Authority
Government Institutions and Professional Associations	
Tertiary Student Loan Scheme (TSLS)	Fiji Higher Education Commission
Fiji Bureau of Statistics	Fiji Institute of Accountants
Fiji Immigration Office	Labasa Chamber of Commerce—President
National Employment Centre	Fiji Institute of Engineers
Consumer Council of Fiji	Fiji Nursing Council Registrar
Fiji Medical & Dental Secretariat	Fiji Commerce and Employers Federation
Fiji Higher Education Commission	Fiji Banking Associations
National Productivity and Training Centre	Fiji Hotel and Tourism Association
Town & City Councils	
Suva City Council	Lautoka City Council
Nadi Town Council	Labasa Town Council
International Organisations	**Embassies**
Asian Development Bank	Chinese Embassy—Suva
Pacific Island Association for Non-Government Association	High Commission of India
Pacific Island Private Sector Organisation	Embassy of the Republic of Korea
Pacific Island Forum	High Commission of Malaysia
PLAN International	New Zealand High Commission
Secretariat of the Pacific Community	Australian High Commission
South Pacific Tourism Organisation	Taipei Trade Office
United Nations Development Program (UNDP)	Kiribati Embassy
World Bank	
European Union	
Local Businesses	
4R Electrical & Construction, Labasa	Datec Fiji Ltd, CEO
Marriott International (VP, Fiji Samoa & New Caledonia)	Warwick Hotel, Coral Coast. Executive Director Pacific
Bondwell Pte, LTD. Fiji	Fiji Sugar Corporation
Rawlinson's Jenkins Pte, LTD	Sun Insurance
Engineered Designs, Suva, Fiji	Vatukoula Mine, Fiji

Telecom Fiji Limited—CEO	Energy Fiji Limited
BA Provincial Council	
Universities & Education Institutions	
Fiji National University (FNU) Vice Chancellor and senior staff	TISI Sangam. CEO
Head of FNU Campus Labasa	Sangam Institute of Technology Nursing College, Labasa—Dean
FNU, Deputy Vice Chancellor TVET	Australia Pacific Training Coalition-Country Director
Research DVC & Facilities Manager	Montfort Boys Town (MBT)
Alivereti Cawanibuka (former FNU Nasinu Head)	Australia Pacific Technical College
University of the South Pacific (USP) DVC Teaching and Learning)	Tutu Rural Training Centre
USP—Vice-Chancellor (Zoom meeting)	The Pacific Polytechnic Ltd
USP—previous Dean of Science and Technology	Forestry Training Centre
Fiji University—VC (Zoom meeting)	Service Pro International
Centre for Appropriate Technology and Development (CATD)	Vivekananda Technical Centre (VTC)
Seven Day Adventist Fulton College	Keshal's Business Education Institute
Chevalier Training Institute	Fiji Corrections Service Training Academy
Fiji Muslim League	Fiji Police Academy
LDS Technical College of Fiji	Makoi Women's Vocational Training Centre
Corpus Christi Teachers College (CCTC)	Navuso Agricultural Training Institute