

R



**THE REVIEW**

ROOSEVELT@YALE-NUS POLICY JOURNAL  
ISSUE 3 - SUMMER 2021

*The Review* is a public policy journal publication by Roosevelt Network Yale-NUS College Chapter. A registered student organisation of Yale-NUS College, Roosevelt@YNC is a student-run, non-partisan public policy think tank which provides a platform for Yale-NUS students to be exposed to and to engage in local issues through the generation and implementation of progressive policy ideas. This journal is a compilation of policy memos, opinion pieces, essays, and other research our members have written throughout Academic Year 2020/21.

Journal Editor and Designer: Ng Jun Jie ('22)

Published by Roosevelt Network Yale-NUS College Chapter, Singapore

© 2021 Roosevelt@YNC

[www.roosevelt.common.yale-nus.edu.sg](http://www.roosevelt.common.yale-nus.edu.sg)

[www.facebook.com/RNyalenus](https://www.facebook.com/RNyalenus)

[www.linkedin.com/company/rnyalenus/](https://www.linkedin.com/company/rnyalenus/)



Follow us for more information

# AY2020/21 LEADERSHIP TEAM



**Lim Tian Jiao ('23)**

President

**Tan Hong Kai ('22)**

Policy Centre Head for  
Economic Development and Strategy



**Kaezeel Yeo ('23)**

Vice President (Policy)

**Alexander Goh ('22)**

Policy Centre Head for  
Equal Justice & Human Rights



**Ng Jun Jie ('22)**

Vice President (Organisation)

**Heng Jie Min ('22)**

Policy Centre Head for  
Energy, Technology & the Environment



**Alisha Lavendra ('22)**

Director of Policy

Foreword	4
Highlights	5
Economic Development & Strategy	7
<ul style="list-style-type: none"> <li>• Budding Entrepreneurs from a Young Age</li> <li>• Fostering Entrepreneurship from a Young Age</li> <li>• Is FinTech The Answer to Climate Change?</li> <li>• A contemporary evaluation of the Progressive Wage Model</li> </ul>	
Equal Justice & Human Rights	36
<ul style="list-style-type: none"> <li>• Improving Access to Mental Health Resources for Migrant Construction Workers in Singapore</li> <li>• No More Corporal Punishment</li> <li>• WeCARE: Expanding childcare awareness to facilitate employment for single mothers</li> <li>• Accessing Housing in a Meritocratic Society: A Single Mother’s Reality</li> <li>• Preschools for the People: An Examination of Singapore’s Early Childhood Education Landscape, Parts I and II</li> <li>• Silver Support Scheme for More</li> </ul>	
Energy, Technology & the Environment	79
<ul style="list-style-type: none"> <li>• Stimulating demand for local produce through a cashback scheme</li> <li>• The Next Step in Singapore’s Food Story: Encouraging Demand for Local Produce</li> <li>• Singaporean Farmers’ Markets: Building a culture of “buying local”</li> </ul>	

# FOREWORD

Our leadership team took over the reins of Roosevelt@YNC in a time of disruption, as Covid-19 had rendered much of our regular programming untenable.

However, this shift presented us with an opportunity to experiment boldly. We have adjusted our training curriculum based on insights from previous iterations, and used our shift to digital to pursue partnerships with organisations we would never have considered connecting with before. For instance, we partnered with Roosevelt Network's Yale University Chapter to launch the inaugural Yale x Yale-NUS Global Policy Hackathon — which saw 170 students from 26 universities come together for a weekend to tackle internationally pressing issues — despite a thirteen-hour time difference.

The Review presents Roosevelt@YNC's highlights over the past year. It also consolidates our members' written works across our three policy centres: Energy, Technology & the Environment, Equal Justice & Human Rights, and Economic Development and Strategy. From food sustainability to migrant workers' mental health to ground-up entrepreneurship in Singapore, this edition of the Review contains the largest number of publications to date. We hope that at least a few of these pieces resonate with you, spark your interest in issue areas, and inspire you to start thinking about how we may change current systems for the better.

The leadership team would like to extend a heartfelt thank you to the staff and faculty at Yale-NUS College for their guidance: to our Faculty Advisor Tinesh Indrarajah for his willingness to advise the leadership team and project teams alike; to Vice President (Engagement) Trisha Craig for her strategic counsel and op-ed expertise; to CIPE Senior Programme Manager Jenika Kaul and Dean of Students' Office Senior Manager Petrina Loh for their assistance during our online events; and to many other faculty members for sharpening our project teams' landscape studies and policy suggestions. Our work this year would not have been possible without your support.

With that, we invite you to dive into this journal, consider our members' policy recommendations, and hopefully leave with new thoughts on how to make Singapore a more progressive and inclusive society. Happy reading!

On behalf of the Roosevelt@YNC AY2020/21 Leadership Team,



Lim Tian Jiao ('23)  
3rd President of Roosevelt@YNC  
July 2021

# HIGHLIGHTS

## Policy Curriculum (Fall 2020)



Building on the Policy Guide developed by Roosevelt alumnae Ng Yi Ming ('21) and Prairie Soh ('21), the Leadership Team crafted a new policy-writing curriculum for our members. We conducted fortnightly training sessions, where we introduced our members to the art of writing policy memos. At the end of the four sessions, they learned to analyse problems, map out stakeholders, brainstorm solutions, and evaluate their policy proposals.

As part of our efforts to acquaint our members with public platforms to share their policy ideas, we organised a panel with distinguished journalists who shared their insights on op-ed writing in a media-saturated world. Speaking on the panel were ST Associate Editor Chua Mui Hoong, BBC London Senior Journalist Vincent Ni, and LKYSPS Associate Professor of Practice James Crabtree. They discussed the role of conventional print media as a neutral ground, as compared to the polarity of internet discourse. Our members left feeling inspired after realising the importance of a balanced and nuanced policy commentary.

## Policy-Powered Journalism (13 Oct 2020)



## Op-ed Writing Workshop (20 Oct 2020)



Following the policy curriculum, we invited Vice President (Engagement) at Yale-NUS College, Trisha Craig, to conduct an op-ed writing workshop for our members. Recognising the importance of accessible policy solutions, we sought to teach our members how to craft compelling narratives that the general public can resonate with. Through the workshop, members refined their writing skills to prepare their ideas for publication on The Octant, the college's student-run newspaper.

# HIGHLIGHTS

One of our biggest events as a chapter was the **Yale x Yale-NUS Global Policy Hackathon**. After months of deliberation, coordination, planning, and hard work, the hackathon was held virtually from **19 to 28 February 2021**. 170 undergraduate students from 26 schools in four countries came together to devise critical solutions to today's problems of green transitioning and vaccine hesitancy. To help participants grapple with the issues on a deeper level, we also put together a week-long **Global Policy Conference**, comprising workshops and presentations by research professionals to share about their subject matter expertise and policy-writing experience. More at <https://www.yale-nus.edu.sg/newsroom/virtual-global-policy-hackathon/>.

To take a deeper dive into how FinTech can be better regulated to promote green growth, our members spoke to Professor Duan Jin-Chuan, executive director of Asian Institute of Digital Finance and Jardine Cycle & Carriage Professor at NUS Business School, about the Bottom-up Greenness (BuG) approach as a supply-side strategy to promote environmental sustainability. The hour was spent interrogating the establishment and implementation of evidence-based greenness metrics, and how digital technology and modern analytics can account for them. The discussion exposed our members to progressive and innovative ways of keeping corporations accountable for their role in the green transition.

## FinTech For A Greener World (6 Apr 2021)



## Policy Deep-Dive Projects (Spring 2021)

Our members worked on diving deeper into various topics of interest and getting to the core of key social issues. For instance, Shaharaj Ahmed ('23) worked hard to dissect arguments surrounding the Progressive Wage Model, speaking to experts, academics, and community volunteers to give a nuanced assessment of the model. The deep dive projects gave our members a valuable opportunity to gain a deeper understanding of social issues of their interests.

## Publications

To push our team's publications to a wider audience, we cross-published selected pieces on The Octant and the Singapore Policy Journal.



**ECONOMIC  
DEVELOPMENT  
& STRATEGY**

## Budding Entrepreneurs from a Young Age

In this policy memo, **Choo Wai Keat ('24)**, **Dineshram Sukumar ('24)**, **Htet Myet Min Tun ('24)**, **Sean Low ('24)**, **Thimali Bandara ('24)**, and **Zen Alexander Goh ('23)** explore how a lack of pre-university entrepreneurship education results in Singaporeans' perception of themselves as unentrepreneurial despite Singapore's high international rankings on innovation, and propose that the government build a secondary school-level nationwide network for students to nurture their entrepreneurial interests, exchange ideas, and attain mentorship from entrepreneurs and industry experts.

---

Young Singaporeans lack exposure to entrepreneurial activity, leading to a general sentiment that they are not equipped for the endeavours of entrepreneurship [1]. To counter this, the Ministry of Education (MOE) should set up a dedicated body overseeing entrepreneurship education at secondary and pre-tertiary levels to increase exposure to entrepreneurial activities.

### Background and Analysis

The *Global Innovation Index* consistently names Singapore as one of the top 10 strongest innovation sectors globally by government support and business ecosystem [2]. Yet, Singaporean youths still lag behind their ASEAN counterparts in entrepreneurial drive, highlighting Singapore's overall lacklustre entrepreneurial landscape [3]. This could be traced back to the fact that Singaporean youths lack exposure to entrepreneurship in the mainstream education system, which mainly prepares students for the labour market. In the current education system, students are either (1) closed off to

entrepreneurship as a viable career, or (2) unconfident of their skills in starting a business, even if they have the interest. These shortcomings carry socio-economic consequences — from prospective entrepreneurs missing out on their dreams, to society potentially missing out on the next billion-dollar idea and the jobs tied to it.

To draw a distinction between actual entrepreneurship and other forms of self/informal employment (e.g. gig economy micro-entrepreneurship, direct selling, etc.), entrepreneurship is defined as “the activities of an individual or a group aimed at initiating economic activities in the formal sector under a legal form of business” [4]. Given the importance of the innovation sector, encouraging entrepreneurship has been a key policy thrust of the government. However, current initiatives of startup incubators, grants and enterprise programs do not target the root cause of the problem and hence have been insufficient in improving the entrepreneurial landscape. These programs are mostly focused on helping

entrepreneurs at universities scale up their businesses while there are limited avenues for Singaporean youths to acquire startup skills, particularly at the pre-university level. This creates a knowledge gap where students interested in entrepreneurship cannot find avenues to progressively develop their skill set before being thrown into the deep end. Additionally, these programs are only impactful for a small group of participants; the wider mass of students remain unexposed to entrepreneurship. The flaws of the existing schemes, therefore, perpetuate the problem of entrepreneurship being an overly niche path open to only a select few.

With entrepreneurship recognised as an effective means for countries to nurture homegrown enterprise champions and create jobs, pedagogies for entrepreneurship education are at the forefront of discourse in many European educational institutes; these offer a playbook for Singapore to adapt from. There are three ways to teach entrepreneurship: *Education for Entrepreneurship* involves imparting concrete business skills to students with a focus on starting a business; *Education about Entrepreneurship* implies learning about entrepreneurship as a socio-economic phenomenon; *Education through Entrepreneurship* connotes developing soft business skills in students through project work [5]. Each of these pedagogies have different uses and some are already being implemented at the more progressive private schools

in Singapore. However, students in mainstream public schools are still systematically excluded.

Therefore, encouraging entrepreneurship education in Singapore is not so much about reinventing pedagogies, but adapting established methodologies such that entrepreneurial education becomes accessible to all.

### Talking Points

- *A Central Body for Entrepreneurship Education:* A central dedicated body is tasked to expose students to entrepreneurship through mentorship, experiential opportunities and activities early on, before they steer away from entrepreneurship indefinitely.
- *Engaging Local Entrepreneurs Directly:* Partnering Enterprise Singapore (ESG) and leveraging the resources of the National Youth Council (NYC) to run this program enables direct access to Singapore's entrepreneurs in different sectors, facilitates immersive experiences for students within the entrepreneurship ecosystem, and streamlines the process of engaging entrepreneurs.
- *A Student-Driven Entrepreneurship Community:* Networking student members of individual school clubs at the zone level opens up opportunities for ground-up collaboration. This creates a conducive, encouraging and accessible community environment to spark ideas and network, closely

mirroring the entrepreneurship community at large.

### **The Policy Idea**

To provide entrepreneurship education to all students who are keen, Singapore's MOE should partner with ESG [6] to establish an industry-backed, centrally managed entrepreneurship interest group. This group, the Organisation for Entrepreneurial Incubation (OEI), should be open to all secondary school students.

#### Governmental Organisation and Interest

ESG provides direct industry access and engages entrepreneurs to facilitate this program's execution. Concerned with developing the start-up space in Singapore, ESG would hence be interested to groom potential entrepreneurs during their formative years.

Simultaneously, MOE itself desires to build 'entrepreneurial dare' [7] within students.

Between MOE and ESG, responsibilities concerning the initial implementation and longer-term operations of such a system-wide are tentatively divided as illustrated in Figure 1 (p.11).

The National Youth Council (NYC) runs its own calendar of entrepreneurship-oriented programs, with a good fielding of panelists, advisors and partner businesses [8]. As NYC is an existing partner with MOE [9], it is an avenue

from which to leverage resources for the broader school system. This widens the reach of NYC's resources, resulting in greater, coordinated progress in entrepreneurship education.

### **Policy Analysis**

Using a combined pedagogy of *Education for Entrepreneurship* and *Education through Entrepreneurship* will improve entrepreneurial attitudes by increasing students' willingness and ability to pursue entrepreneurship as a career [10]. Technical skills workshops allow students to better grasp business concepts and prime them to take full advantage of the initiatives already offered at universities [11]. The project component of the curriculum consolidates learning in an engaging way and is instrumental in developing soft skills [12] that are equally important for entrepreneurial success. Together, the curriculum empowers students to believe they have what it takes to successfully start a business, addressing a root cause of lacklustre entrepreneurial drive in Singaporean youths [13].

Having this Entrepreneurship Club in secondary schools means nurturing students' interest in entrepreneurship early on: important because students' interest in entrepreneurship falls with each grade level, according to a US Gallup poll [14]. The non-highstake environment we propose allows for an atmosphere where failure is accepted and not harshly criticised. This mindset of

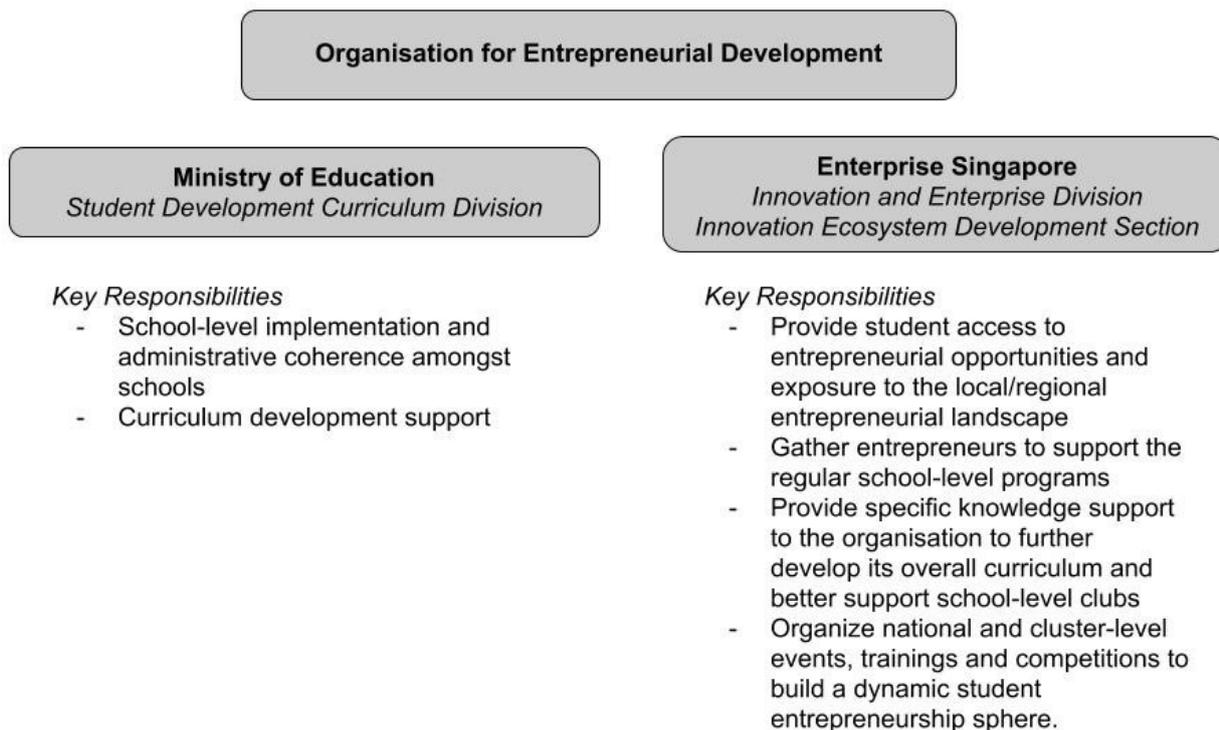


Figure 1: Division of responsibilities between MOE and ESG concerning the initial implementation and longer-term operations of the OEI.

being ‘open to risk and failure’ has been shown to be crucial to entrepreneurship [15] and important in life. The Entrepreneurship Club is efficient because the resources spent on it will only be used on those who are actually interested in entrepreneurship, and its flexibility means that participation in it will not hinder students’ academics or other passions.

To ensure accountability and equal and efficient spread of resources, the Entrepreneurship Club will function in each school as a chapter of a larger umbrella organisation. This central body will act as the bridge between various stakeholders, responsible for quality control and budget allocation across schools. Having this larger dedicated body — committed with specialised full-

time staff to monitor individual Entrepreneurship Clubs — ensures they are run effectively for a long period of time. Notably, school-level clubs will be connected within their school clusters to expand entrepreneurial networks, facilitating cooperation and interaction and leveraging common resource pools. This further allows for collaboration across all schools in Singapore, thereby allowing students the experience of real-world collaboration, and also provides them with exposure to other youth and their ideas. This can act as a motivation for youth.

Having academic teachers teach entrepreneurship is one of the main shortcomings of entrepreneurship education case studies abroad. Our policy overcomes this by leveraging

real-world entrepreneurs of small and medium enterprises (SMEs) as mentors for the students. These mentors make entrepreneurship more intimate and relatable for aspiring students, making students more likely to view an entrepreneurial career more favourably. These entrepreneurs would carry out workshops on specific skills, or share about their entrepreneurial journey. Our policy recognises and leverages on the vested interests of these stakeholders (industry partners and entrepreneurs) in having a developed entrepreneurial scene. We are confident that the networking opportunities available when working with the government will be sufficient motivation for SME entrepreneurs, as shown by existing NYC partner members. Furthermore, participating entrepreneurs will have access to a pool of talented youth.

## Key Facts

Studies indicate that the most important factor in determining whether one opts in to entrepreneurship is the individual's perceived skills to succeed as an entrepreneur [16]. Yet, according to 2012 Global Entrepreneurship Monitor (GEM) surveys, only 26.6% of surveyed Singaporean youths felt that they had the skills and technical expertise needed to start a business [17]. Likewise, Singapore ranked 23 out of 25 selected innovation-driven economies on an index meant to measure perceived entrepreneurial skills in graduates [18]. Therefore, it is fair to consider the lack of entrepreneurial skills training as a significant obstacle to entrepreneurial spirit in the Singaporean youth.

## References

1. "Youth Conversations Digital Sensing". 2020. National Youth Council. <https://www.nyc.gov.sg/en/initiatives/resources/youth-conversations/>.
2. "Singapore's IP Ranking". 2020. *IPOS*. <https://www.ipos.gov.sg/who-we-are/singapore-ip-ranking>.
3. Seow, Joanna. 2019. "Poll: Singapore Youth Less Keen On Being Entrepreneurs Than Asean Peers". *The Straits Times*. <https://www.straitstimes.com/business/poll-spore-youth-less-keen-on-being-entrepreneurs-than-asean-peers>.
4. Marcotte, Claude. 2013. "Measuring Entrepreneurship At The Country Level: A Review And Research Agenda". *Entrepreneurship & Regional Development* 25 (3-4): 174-194. doi:10.1080/08985626.2012.710264.
5. Johansen, Vegard. 2012. "Entrepreneurship Education In Secondary Education And Training". *Scandinavian Journal Of Educational Research* 57 (4): 357-368.
6. Enterprise Singapore is a statutory board tasked with nurturing homegrown businesses, including startups.

7. Ng, Chee Meng. 2017. "Wanted: Joy Of Learning, Entrepreneurial Dare In Students". The Straits Times. <https://www.straitstimes.com/opinion/wanted-joy-of-learning-entrepreneurial-dare-in-students>.
8. NYC Members: <https://www.nyc.gov.sg/en/about-us/#members>
9. NYC Partners: <https://www.nyc.gov.sg/omw/partners>
10. Moberg, Kåre. 2014. "Two Approaches To Entrepreneurship Education: The Different Effects Of Education For And Through Entrepreneurship At The Lower Secondary Level". *The International Journal Of Management Education* 12 (3): 512-528. doi:10.1016/j.ijme.2014.05.002.
11. Startup incubators, grants, networking opportunity, expertise
12. Such as public speaking, communication, networking, project management
13. Students lack confidence to start own business, even if they initially wanted to.
- Ács Zoltán J., and Szerb László. *The Global Entrepreneurship Index (GEINDEX)*. Boston: Now Publishers, 2009.
14. Gallup, Inc. 2020. "Minority, Young Students More Entrepreneurially Inclined". Gallup.Com. <https://news.gallup.com/poll/166808/minority-young-students-entrepreneurially-inclined.aspx>.
15. "Why Should We Bring Entrepreneurship Education To Schools?". 2020. SkillsfortheFuture.Eu. <http://skillsfortheFuture.eu/get-inspired/580-why-should-we-bring-entrepreneurship-education-to-schools.html>.
16. Gomulya, David. 2015. "Entrepreneurship In Singapore: Growth And Challenges". *The Entrepreneurial Rise In Southeast Asia*, 35-67.
17. Ibid.
18. Ibid.

## Fostering Entrepreneurship from a Young Age

This op-ed is an extension of the policy memo "Budding Entrepreneurs from a Young Age" (p.8). Written by **Choo Wai Keat ('24)**, **Dineshram Sukumar ('24)**, **Htet Myet Min Tun ('24)**, **Sean Low ('24)**, **Thimali Bandara ('24)**, and **Zen Alexander Goh ('23)**.

---

In today's world, it is not uncommon to buy a new pair of shoes on Shopee and have them delivered to your doorstep via Ninja Van. We can book a ride on Grab (on a phone connected to MyRepublic's cellular network) to sell second-hand clothes to a Carousell buyer, then enjoy a meal paid with Shopback. There's one thing in common with all these activities — they make use of services provided by local start-ups, and they bring newfound convenience to our everyday lives.

Beyond that, we depend on startups to create quality careers for Singapore's workforce and establish new sectors within the economy. For example, Carousell and Grab started as pioneers in the peer-to-peer e-commerce and ride-hailing sectors. Now, they are local champions that employ in excess of 3,000 professionals and empower millions more [1] to make a living through their platforms. This figure is expected to grow in the future: tech-enabled startups alone are slated to make up 2% of Singapore's GDP by 2035 [2], on par with the tourism sector.

Given these social and economic benefits of entrepreneurship — solving long-persistent social problems and providing new jobs — it is unsurprising

that the Singapore government continues to support the innovation sector through a network of dedicated grants dispersed by numerous agencies. As a result, Singapore is now amongst the best [3] in global innovation.

Yet, ironically, Singaporean youths are becoming less entrepreneurial [4]. According to the National Youth Council (NYC), Singaporeans are apprehensive about starting companies as mainstream education does not equip them [3] with a sufficiently diverse range of skills to start a successful business from scratch. Hence, there is a gap [5] between the Ministry of Education (MOE)'s desire to instill entrepreneurial dare in students and the schooling experience these students receive.

Entrepreneurship education at the pre-tertiary level remains largely underdeveloped. Disparate programs like the Tan Kah Kee Young Inventors Award [6] and limited initiatives from NYC provide scarce platforms for early entrepreneurship education. To make matters worse, these programs are not made readily accessible to all students in MOE schools. An equity problem hence arises as such opportunities are only

accessible to a small pool of students already involved in entrepreneurial institutions or who are already “in the know.”

To leverage the full potential of entrepreneurship programs, we need to make them accessible to every student. However, developing and implementing a nationwide entrepreneurship subject curriculum has its fair share of difficulties. It is hindered by the need to focus on core academic subjects, and a lack of specialised instructors within MOE to ensure the program’s fruition. This deprives many students of an education in entrepreneurship and the opportunities to cultivate the skills of business.

To develop Singaporean youths’ entrepreneurial spirit, early stage education is vital. Studies by the World Bank [7] suggest that equipping students with entrepreneurial knowledge at earlier levels of education is far more effective in nurturing a student’s knack for and passion towards entrepreneurship careers.

As such, we believe that MOE should implement a nationwide entrepreneurship education programme, supported by the Enterprise Singapore and NYC — organisations which are sufficiently capable and experienced to deliver such a program. To overcome curriculum constraints, this program will operate as a Co-Curricular Activity (CCA) featuring chapters in every secondary school. Students will be

exposed to the fundamentals of entrepreneurship and will have opportunities to consolidate their learning and raise money for their schools through starting social enterprises or Community Involvement Projects [8].

With MOE’s institutional support, such resources could be efficiently extended to the wider education system. The CCA system enables multiple schools to aggregate interest and coordinate larger-scale activities beyond what is feasible within individual schools by involving external collaborations and contributions, such as large-scale talks by prominent entrepreneurs, national case competitions and zone-based fundraising fairs.

Further, skills workshops will allow students to better grasp business concepts and prime them to take full advantage of the suite of initiatives the government already offers at Institutes of Higher Learning, such as startup incubators, grants, networking opportunity, and expertise. The project-based deliverables of the CCA consolidate learning in an engaging way and will develop soft skills [9] that are equally important in entrepreneurial success.

A key shortcoming of entrepreneurship education abroad is that school teachers teach the subject, even though they are not necessarily well-equipped to do so [9]. To remedy this, our proposal seeks to leverage real-world entrepreneurs as

students' mentors. Through sharings and workshops, these mentors will make entrepreneurship more relatable for aspiring students. All in all, the curriculum can empower students to believe that they have what it takes to successfully start a business, addressing the root cause [10] of lacklustre entrepreneurial drive in Singaporean youths.

Given the clear returns on economic development, comparatively low operational cost, and alignment with government interest to develop the startup environment, this policy is financially viable. Furthermore, many large MOE infrastructure development projects have recently been concluded

(namely the Eunoia Junior College and Singapore Management "University X" buildings). This frees up the annual budget to be directed towards developing and implementing this CCA.

In the coming years, as the region becomes more competitive, innovation and entrepreneurship will be key drivers of Singapore's economy. It is vital for our youth to be equipped with skills, provided exposure, and ultimately be imbued with the entrepreneurial spirit necessary to navigate that future. Our industry-backed CCA program responds to all three fronts, and can lead to the creation of more life-changing platforms in the future that share Grab and Carousell's revolutionary success.

## References

1. Lee, Yoolim. "Grab to Double Singapore Staff to 3,000 in Latest Expansion." Bloomberg.com. Bloomberg, March 29, 2019. <https://www.bloomberg.com/news/articles/2019-03-29/grab-to-double-singapore-staff-to-3-000-in-latest-expansion>.
2. "Singapore's Tech Enabled Startup Ecosystem". 2015. Pwc.Com. <https://www.pwc.com/sg/en/microsite/media/assets/startup-google.pdf>.
3. Dutta, Soumitra, Bruno Lanvin, and Sacha Wunsch-Vincent. *Global Innovation Index*. Ithaca, NY: Cornell University, 2018.
4. Seow, Joanna. "Poll: Singapore Youth Less Keen on Being Entrepreneurs than Asean Peers." The Straits Times, August 17, 2019. <https://www.straitstimes.com/business/poll-spore-youth-less-keen-on-being-entrepreneurs-than-asean-peers>.
5. Ministry of Education. "MOE FY 2017 Committee of Supply Debate Speech by Minister of Education (Schools) Ng Chee Meng." Speeches/Interviews. Accessed December 26, 2020. <https://www.moe.gov.sg/news/speeches/moe-fy-2017-committee-of-supply-debate-speech-by-minister-of-education-schools-ng-chee-meng>.
6. Tan Kah Kee Foundation. "About Young Inventors' Awards." Tan Kah Kee Foundation. Accessed December 26, 2020. <https://www.tkkfoundation.org.sg/young-inventors-awards>.

7. Valerio, Alexandria, Brent Parton, and Alicia M. Robb. *Entrepreneurship Education and Training Programs around the World Dimensions for Success*. Washington, DC: World Bank, 2014.
8. Community Involvement Projects; a mandatory part of the local curriculum where students plan and carry out projects that benefit their immediate community. Projects range from food drives to service learning trips abroad.
9. Neck, Heidi M., and Andrew C. Corbett. 2018. "The Scholarship Of Teaching And Learning Entrepreneurship". *Entrepreneurship Education And Pedagogy* 1 (1): 8-41. doi:10.1177/2515127417737286.
10. Ács Zoltán J., and Szerb László. *The Global Entrepreneurship Index (GEINDEX)*. Boston: Now Publishers, 2009.

## Is FinTech The Answer to Climate Change?

In this op-ed, **Htet Myet Min Tun ('24)** and **Choo Wai Keat ('24)** explore the possibilities the Bottom-up Greenness (BuG) approach may bring to climate change solutions.

---

Over the last two centuries, the human population has exploded nearly eight times over, to 7.9 billion in 2021. With this comes an acceleration in the level of environmental degradation, as nature fights a losing battle against the ever-growing demands of people on the planet. In an attempt to fulfill growing demands, technological advances — such as agritech, commercial agriculture, and fishing — have even emerged as the main catalysts and culprits of the level of deterioration we have witnessed and continue to witness today.

In a talk titled *FinTech For A Greener World* hosted by Roosevelt Network Yale-NUS College Chapter, Professor Duan Jin-Chuan (shown in Image 2, p.21), Executive Director at Asian Institute of Digital Finance and Jardine Cycle & Carriage Professor at National University of Singapore (NUS) Business School, proposed that technology does not always need to be a part of the problem, but rather a solution to cure the deteriorating environment. In fact, the Bottom-up Greenness (BuG) approach based on financial technology will be the most forward-looking solution to environmental degradation.

### **The Need for a Supply-Side Strategy**

Currently, most approaches to address

environmental degradation aim to alter consumption demand. Many current measures, such as the rise of conscious consumerism, tend to be based on arousing a sense of guilt and shame, as well as generally raising awareness of alternatives. Yet, these tactics may not be sufficiently powerful and long-lasting to fundamentally change the course of environmental conservation. This is particularly so in developing countries, where price sensitivity remains the most poignant factor in people's minds as they opt for cheaper solutions which can guarantee survivability, regardless of the impact they exact on the environment.

At the root of these problems are misaligned economic incentives. When push comes to shove, many consumers opt for low-cost, environmentally damaging solutions because the environmental toll of using these products is largely invisible. To effectively discourage people from adopting environmentally unsustainable actions in their production and consumption requires an approach which forces individuals to internalise the full environmental costs of their actions.

On the other hand, a supply-side strategy is characterised by changing how goods and services are produced and delivered, curbing production before it can even

begin to morph into a demand-side problem.

Some existing policies do employ this approach — for instance, Environmental, Social and Corporate Governance (ESG) rating agencies penalise companies if their environmental record is less than ideal, while environmental non-governmental organisations (NGO) seek to expose companies' malpractices and raise awareness of environmental issues.

These measures force companies to bear some of the negative externalities resulting from their actions. However, Prof. Duan argues that both are not flawless, as the former relies on commercial entities which may have alternative motivations, whereas the latter has now reached a plateau and is reaping increasingly diminishing marginal returns.

### **Enter the Bottom-up Greenness (BuG) Approach**

The (BuG) approach could address the issue of economic incentives and apply a supply-side strategy to promote environmental sustainability. This strategy rests on two key pillars — technology and economic incentives. For the former, the application of digital technology and use of modern analytics can establish an evidence-based greenness measurement infrastructure and enable prediction and aggregation in supply chains. For the latter, financial institutions such as banks

would consider the aforementioned evidence-based greenness metrics and grant greener companies concessional loans. A bank's regulatory compliance would rest on whether its portfolio has satisfied greenness standards, and hence, banks would be encouraged to offer more concessional loans to greener entities. In such a model, all players are economically incentivised to strive towards environmental sustainability.

Prof. Duan highlights that a pilot using the BuG model is slated to be launched by the Asian Institute of Digital Finance in Indonesia's palm oil industry.

In this model, using the Internet of Things (IoT), data on palm oil smallholders' key environmental behaviours, such as their green practices and the level of environmental pollution they cause, can be collected, using satellite images and IoT devices. The research team plans to work with a NGO to establish standards for determining greenness scores and equip university students with skills to assign these scores to smallholders on the ground. Subsequently, research institutes will develop a supervised machine learning model, which scales up the IoT system to more palm oil smallholders, and with a larger sample, generate predicted greenness scores. The greenness scores of these smallholders affect that of other nodes in the palm oil supply chain, i.e. the greenness score for a node in the supply chain — for instance, a palm oil mill or a palm oil company — is partially determined by the greenness

scores of the suppliers it sources from.

This illustrates BuG's unique ecosystem-level approach. Since greenness scores are assigned not at palm oil companies themselves but tied to every node of the palm oil companies' supply chain, should compel companies to take ownership at every step of the way.

At the same time, the BuG approach also accrues several benefits. Firstly, the provision of concessional loans to smallholders would increase financial inclusion, as these entities can more easily gain access to capital. Secondly, the assignment of greenness scores is now bottom-up and more accurate, as opposed to a top-down process rooted in third-party observations. Thirdly, audits can be easily conducted to maintain system integrity, and feedback can be smoothly provided to improve existing procedures. Crucially, auditors can also help to champion environmental sustainability to the population at large, as they are equipped with the knowledge and expertise in this domain.

This then creates a win-win system for all stakeholders, where greenness is integrated into every step of the supply chain.

### **Potential Roadblocks**

BuG provides an innovative alternative to the current ESG ecosystem. However, we acknowledge that there may remain some practical limitations which could hinder the maximum realisation of its

potential.

Firstly, BuG may be difficult to implement on the ground, as the incentives of different stakeholders may not align to the extent that they are willing to cooperate on such a project. This might result in an unwillingness to adopt the BuG framework because the environmental objective of every institution differs. For example, NGO-set standards might be higher than what companies are willing to achieve.

Next, the feasibility of this policy may be up for contention. The BuG is mainly targeted at entities in developing countries. However, these countries may lack sufficient infrastructure and administrative capacity to manage stringent tracking and oversight requirements. This is compounded by the fact that a significant proportion of financial transactions in developing countries occur via informal means.

Lastly, even upon project launch, the BuG mechanism will be primarily run by financial institutions. This could lead to the recurrence of malpractice that currently plagues ESG systems, such as the possibility of established companies "gaming the system" to achieve high ratings on paper. Thus, for the BuG approach to realise its full potential, greater government oversight might be needed in structuring these collaborations.

**Can Bottom-Up Greenness be the answer?**

In conclusion, BuG is an approach that can be highly effective under certain conditions: stakeholder incentives must align; the environmental issue at hand must be easily resolvable without the presence of entrenched interest groups who stand to gain from the status quo; and efficient institutions must execute the policy.

We acknowledge that this may not always be possible due to the different circumstances of every industry and country. As such, the BuG approach can serve as a useful complement to other less market-friendly approaches, such as demand-side strategies based on nudging perception or governmental legislation.

As the world approaches a critical juncture in our fight against climate change, it is now more urgent than ever to conduct a thorough review of existing

processes and leverage on the strengths of different players to fashion solutions and foster a more environmentally friendly economy and society. The emerging FinTech industry has great potential to do so. It is our hope that this potential can be translated into policy, action, and reality in the near future.



Image 2:  
Professor  
Duan Jin-Chuan.

*Roosevelt Network Yale-NUS College Chapter would like to convey its deepest appreciation to Prof. Duan for his insightful sharing.*

# A contemporary evaluation of the Progressive Wage Model

In this op-ed, **Shaharaj Ahmed ('23)** argues that the Progressive Wage Model is flawed on several premises. An abridged version of this piece is slated to be published in the Singapore Policy Journal.

---

Public consensus that Singapore's low-skill workers need to be paid more has sparked calls for more progressive and robust labour laws, including wage interventions such as the minimum wage. The government has acceded, in some way, through their own solution to the issue of stagnating low wages with the Progressive Wage Model (PWM). The PWM has been touted by some top government officials as "Minimum Wage Plus" [1] because on top of stipulating a basic wage, it also provides a clear structure for Singapore's lowest workers to raise their wages by taking courses and more responsibilities in order to qualify for higher level positions and other promotions.

In theory, the policy seems ideal. However, in practice, it has limitations which many talk about but few truly understand. In this piece, I will be explaining the limitations of the PWM, particularly its effects on productivity and wages, legal ambiguity, and cost of implementation.

## **Productivity**

As mentioned, the PWM codifies into policy the practice of increased productivity for increased pay. For

example, if you are a cleaner and take a course to become a specialised waste disposal cleaner, then you get paid a higher wage. The PWM is currently being implemented in the landscaping, cleaning, and security industries. However, realistically, this notion of career development and increased productivity for low-skilled jobs in these industries is impossible to achieve for two reasons: a lack of room for increased efficiency and a lack of promotion opportunities.

The most basic reason as to why a worker may not be able to increase their productivity is that there simply is no more room for efficiency. In many of the jobs where the PWM is applicable — security, cleaning, and landscaping — if a worker is operating at their full capacity, then chances are that is the full productive capacity of any worker. This argument becomes clearer once we realise that there is nothing inherent about these jobs that require skills, significant training, or education. Whereas to be a doctor or a soccer player, one needs innate skill and/or many years of training, to be a cleaner is to merely clean. If a dishwasher can only wash 40 dishes an hour with current technology, then there is no way for the

PWM to raise that rate to increase the dishwasher's productivity. The only way to increase the productivity of that worker is to increase the technological capabilities of that worker. In a video interview, Mr. Raj Joshua Thomas, Nominated Member of Parliament and President of the Security Association Singapore, argued that employers, at least in the security industry, should invest in technology to expand the job scope of security guards [2]. Thus, while proponents may laud the PWM for stipulating a recommended wage band that employees can use to negotiate for higher wages, there is little demonstrable productivity increases that employees can offer to justify wage increases unless the industry itself invests in better technology and allows workers to use said technology after training.

The other main method through which the PWM promotes productivity is career promotion. This is an unlikely prospect in the industries the PWM is currently implemented in — security, landscaping, and cleaning. In these industries, senior positions — scarce to begin with — are always filled up. Many security guards, despite taking the time to undertake courses and training certifications to qualify for senior positions, often fail to get promoted because there is no space on the upper rung [3]. At the end of the day, with a pyramid hierarchy, most workers will have to do general, mundane work and only some will be selected for specialist work such as lift maintenance in the landscaping industry or managerial

positions such as a senior security supervisor in the security industry. This seems to be a critical flaw of the PWM: to assume that specialist roles will continue to be produced, thus allowing junior workers to abdicate their generalist roles, without rewarding the workers who continue to shoulder the base responsibilities of the organisation.

For example, let us observe the career ladder for a cleaner in the Group 3 cluster of the cleaning industry, as illustrated in Figure 3 (p.24). A cleaner starts out with a base pay of S\$1,442. While it is desirable from the cleaner's perspective to take courses to become a supervisor and gain a base pay of S\$1,854, it is also in their colleagues' interests to take these same courses to qualify as a supervisor. Hence, there is collective upward pressure for an already scarce job. Thus, while there is a worker who does get promoted to the managerial position (assuming it is open) and gains a higher salary, the PWM does nothing for the worker who is forced to remain in the bottom rungs of the ladder despite being qualified to be promoted, because at the end of the day, someone has to do the general cleaning. Let us, however, assume a case where it is possible for everyone to be a supervisor and gain higher pay. Who then will do the general cleaning? It is this inflexibility of the PWM to recognise that most workers will not be able to climb the PWM ladder because of the lack of vacant senior positions that makes the promise of increased productivity a myth. This is evidenced

by the fact that most PWM industries, particularly the security industry, are suffering from manpower crunches in junior positions, not senior ones. Everyone wants to be a manager.

This flaw indicates the presence of a more problematic ideology pervading our conversations around income inequality: that workers are ‘worthy’ of more pay if they are higher up on the career ladder, and conversely, not

‘worthy’ if they are lower on the career ladder. For those at the bottom, this can mean an income that does not meet their basic needs, even as they are employed and work as best as they can. In addition, it implies that the essential base of general workers are less deserving, even though these workers are responsible for the bulk of daily operations.

Furthermore, in real life, the PWM theory of raising productivity falls into

### 1 July 2020 to 30 June 2021

From **1 July 2020 to 30 June 2021**, outsourced resident cleaners must be paid the following wages. Wages refer to **basic monthly salary**.

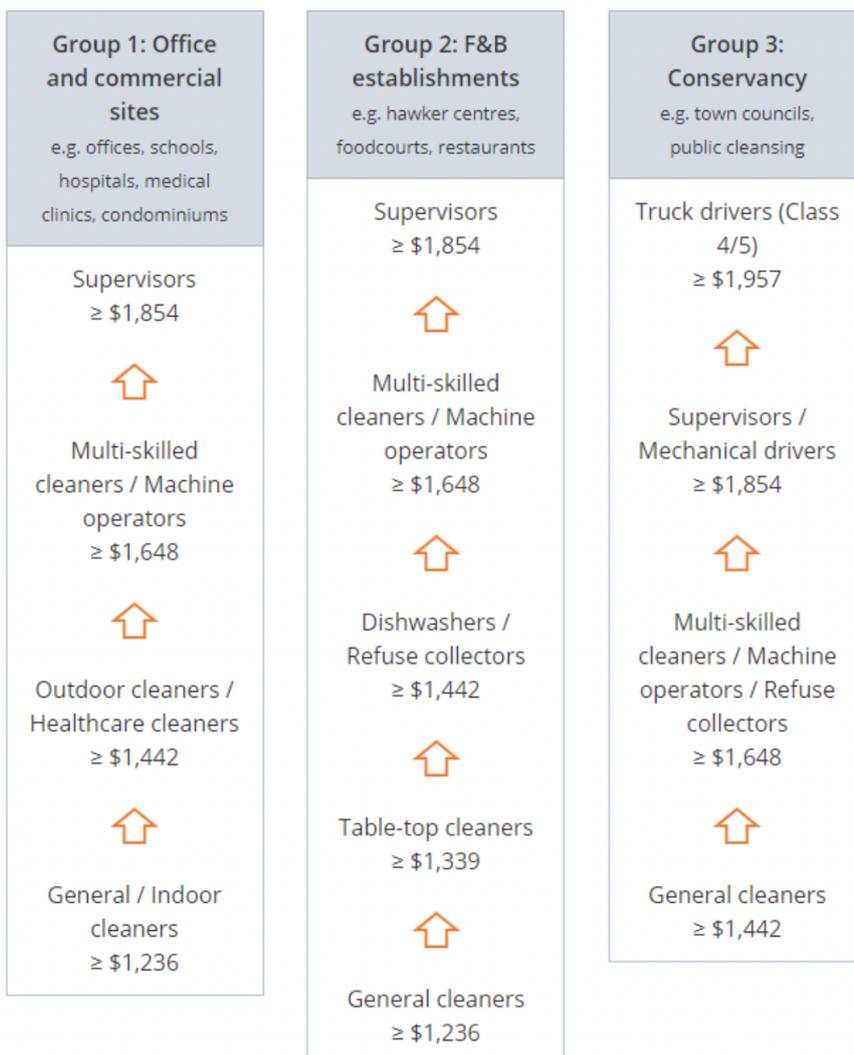


Figure 3: Career ladders for the cleaning industry [4].

more issues. While in the discussion above we maintain the assumption that getting promoted means the worker receives differentiated and advanced work, employers may not have that type of work. Mr. Thomas noted in an interview with Rice Media that for the security industry, “[t]here is very little difference between a Level 1 officers’ job scope and a Level 2 officer, and even between Level 2 officers and Level 3 supervisor.” Career development is theoretical, at this stage, for most PWM workers [5].

## **Wages**

The PWM also does not effectively raise wages for low-wage Singaporean workers, on six counts:

1. it does not sufficiently encourage the promotion of elderly Singaporean workers;
2. it does not take into consideration the mass inflow of foreign labour;
3. the stipulated basic wage becomes a stagnant wage floor due to market oversaturation and a lack of business interest in raising wages;
4. it does not ensure stability of the increased wages when companies change;
5. its expansion into new industries reduces gross wages; and
6. it does not provide a livable wage.

Firstly, the claim that PWM helps raise the productivities and incomes of low-wage Singaporean workers is nullified by the employment practices of firms and the demographics of the low-wage

labourers. Many Singaporean residents in the PWM industries tend to be older and hence less able and slower. Consequently, firms prefer to hire foreign workers at the higher rungs of the PWM ladder [6], leaving elderly Singaporean workers at the lower rungs of the PWM ladder. Professor of Economics at University of Michigan, Prof. Linda Lim, corroborates this through her research, which found that employers tend to hire more able, younger foreign workers to fill up the upper roles, rather than older local residents, since they are able to gain more economic value from their employees this way.

The second structural issue is the PWM’s inability to manage the mass inflow of foreign labour into PWM-covered labour-intensive industries, which Prof. Lim has credited as the main depressors of wage growth for low-skilled labour in Singapore [7]. Hiring agencies have relied on foreign labour due to many reasons, key amongst them is costs. Particularly for the PWM industries, which face an aging workforce and labour shortages due to the unattractiveness of the roles, hiring foreign workers is an easier solution than offering higher wages for older workers. Thus, the inability of the PWM to contend with foreign labour inflows prevents industry-wide wage growth, denying Singaporeans in such industries higher wages.

We should note that foreign hiring is not a problem in all industries. Mr. Thomas

reminds us that this is not the practice in the security industry due to various regulations on hiring foreign workers.

The third limitation of the PWM is that ironically it becomes a sticky wage floor. A sticky wage floor is a situation in which workers are unable to gain higher wages beyond the legal minimum. This could occur for a variety of reasons. One direct cause of this sticky wage floor is the market saturation in these industries. As a consequence of excess supply, cleaning, landscaping, and security outsourcing companies usually outbid each other to offer the lowest contract price possible (which companies are inclined to accept). This means that workers in these job types are paid the lowest wages legally possible. Mr. Thomas shared that the trade association has received sufficiently alarming feedback on regulatory infractions made by some security agencies, which flout PWM rules to underbid competitors [8]. These regulatory infractions demonstrate that market saturation has evolved to the point that firms are willing to depress wages to survive, even to the point of breaking the law.

Consequently, even when demand for services such as cleaning, dishwashing, security, or landscaping increases, wages remain stagnant. Professor of Social Work at the National University of Singapore (NUS), Prof. Irene Ng, posits [9] that when demand rises, more firms enter already saturated industries and each bid to the lowest point possible, driving wages down despite a rise in

demand. Mr. Thomas mentioned that roughly 95% of the roughly 250 security agencies in the industry are small, indicating small barriers to entry and exit for firms within the industry. As a solution, he and his team have proposed setting up higher barriers to entry into the industry, such as raising the initial paid-up capital. However, these are yet to be legislated or adapted into policy. Since the PWM does not regulate foreign labour inflows or industry-wide practices, it may be good to expand the scope of the PWM to tackle these issues if we hope to drive up the wages of low-income Singaporeans.

Another reason for the sticky wage floor is that there are no incentives for employers to pay workers any higher. The most vivid remark I came across on this topic was from Channel NewsAsia's (CNA) interview with Mr. Steve Tan, who is the executive secretary of the Union for Security Employees. He disclosed to CNA that in his tripartite negotiations, he came across a buyer who said "[the] same (security) uncle before and after? Why should I pay you S\$50 more?" [10]. While policy-wise, the PWM actually provides a wage bracket as a guide for firms to pay their workers for each level, practically, firms are incentivised to pay the bare minimum [11].

Upon reflecting on this last comment, it seems that there is a case where employers might be prepared to pay a higher wage — if workers take on more responsibility. However, as previously

pointed out, there is realistically little room for workers to do so. Thus, the interaction between wage and productivity hampers upward mobility under the PWM regime.

Mr. Thomas, however, disagreed on this point, replying that security workers do in fact have leeway in negotiating higher wages. One negotiating tactic is to use the fact that Covid-19 has increased demand for security workers through government initiatives such as SafeEntry booths, which increases the manpower needed by security agencies. It is important to note that this induced demand is, however, temporary. Another more substantial negotiating tactic is to remind security agencies of the manpower crunch they are facing. As noted by Rice Media and later confirmed by Mr. Thomas, many junior positions in security agencies nation-wide are vacant. However, it can also be argued that despite facing labour shortages, employers in the security industry may choose to forego hiring workers rather than pay higher wages. Thus, while PWM-covered workers may have some flexibility in negotiating for higher wages, gains from negotiation are not likely to be too substantial.

Altogether, the presence of a wage floor indicates a more troubling issue: the presence of a culture that is obsessed with cost rather than welfare. The above example of an employer haggling over a wage increase of S\$50 that would have clearly benefited the low-income worker more than it would have to themselves

indicates an unhealthy obsession with capitalist accumulation. Furthermore, the fact that many security agencies often bid contracts with the lowest contract value indicates the presence of employers more concerned with maximising their dollars rather than paying fairer wages to the workers providing the service. While it is not problematic to want services that are as efficient and valuable as possible, it is problematic when in doing so one's workers are not paid what is needed to survive (as demonstrated later in the piece).

Fourth, wage gains from the PWM are unstable as they are constantly under threat of being reset to the base salaries. Prof. Ng documents that whenever the hiring firm puts out a tender for another outsourcing firm for its cleaning, landscaping, or security needs, there is a high chance that the incumbent outsourcing firm will lose the tender and have to leave the current location. If the incumbent outsourcing firm loses the tender and is forced to move, its employees have two options: move with it or stay at their current location. Employees usually choose to stay due to a factor of reasons such as proximity from home. If they choose to stay, their wages become reset to base amounts [12]. This is due to the fact that in the PWM's implementation any experience or skills gains made under the PWM are recognised and rewarded within the firm alone, and cannot be transferred. Though the theoretical practice should be that all firms in the industry recognise the

experience of the worker holistically, the incoming outsourcing company ultimately aims to bid the lowest contract, and so, are unable to pay more to experienced employees due to a lack of funds. Thus, even if an employee were to work in the same industry for 8 years, any progress on the PWM ladder and gains in wages would be reset if the outsourcing company were to change.

Fifth, though expanding the PWM into other industries increases basic wages of workers, there is evidence that gross wages fall. Recently, the Singaporean government has discussed expanding the PWM into other industries such as food and retail services. In his undergraduate thesis, Mr. Kenneth Ler, a NUS graduate, found that though there was an increase in basic wages after PWM came into effect, they found a decrease in gross wages (e.g. overtime pay, allowance, bonus) [13]. One hypothesis for this, which I believe to be most likely given the employment culture, is that employers cut down these benefits in order to comply with the PWM regulations, while also maintaining competitive contracts. Another hypothesis which Mr. Ler proposed, and Mr. Thomas independently brought up, was how these bonuses were to be used in order to reward productivity in the true spirit of the PWM. However, it is not clear why current employees must face a reset in their allowances and bonuses if they've worked with an employer for many years before the PWM was implemented. Thus, it is likely that we are to witness this effect in

the next few months if the PWM is expanded into other sectors.

The final limitation of the PWM's ability to raise wages is its inability to provide a liveable wage. A group of academics from the Nanyang Technological University (NTU), NUS, Duke-NUS, and Beyond Social Services conducted a study to ascertain the Minimum Income Standard (MIS) in Singapore, and found that for a household of a single individual aged between 55 and 64, the minimum income standards were S\$1,721, assuming that the individual does not have any 'chronic conditions and major illnesses' [14].

Mr. Lim Jingzhou, a community worker, calculated [15] how much PWM workers in different industries make, accounting for Workfare Income Supplement (WIS) payouts, a subsidy to boost the monthly wages of employees and self-employed workers who are paid below S\$2,300. He found that for a worker in the cleaning industry within the age band of 55-59 takes home S\$1,185.39, as shown in Figure 4 (p.30). For this type of household, it is clear that the wages offered by the PWM, accompanied by WIS payouts, will not be sufficient to meet baseline income standards, as illustrated in Figure 5 (p.30). However, the PWM does meet the basic income standards for single elderly households (elderly defined as those beyond the age of 64), as Mr. Lim finds that workers in the age band of those greater than 65 earn S\$1,662, versus the baseline income requirements of this type of households

at S\$1,379. While single elderly households can technically support themselves with the PWM, it is morally undesirable to have elderly workers working in the first place, let alone working full time. Furthermore, let us not forget that their costs would definitely be higher (and the payouts from the PWM and WIS would be even more lacking) if they are facing medical bills or chronic/major illnesses — which is likely the case, as many elderly are forced into work at an old age to pay for medical bills for themselves or an elderly spouse or sibling.

There are two interesting notes within this discussion on wages. While the PWM's proponents are proud that the scheme increases the pay of these workers, it is important to note the amount of money they receive versus the amount of money they are able to spend. The column labelled 'Take-Home Cash' represents the real wage cleaners are actually able to spend. This is because part of the money they are paid through the PWM goes to their Central Provident Fund (CPF), which they are unable to access until they are at least 55 years old (the age when a Singaporean resident can apply to withdraw money from their CPF account).

Another interesting note is the discrimination of age in subsidy handouts. As observed in Figure 5 (p.30), workers in the PWM industries gain higher take-home pay for the same position as they age due to the nature of the WIS policy (assuming they stay in

the same position). This is problematic because in different stages of life, different workers have different needs to fulfill. For instance, younger workers such as those in their mid-30s may have dependent children for which many expenditures are realised. While this is a reflection of the government's desire to move workers into higher-paying jobs, it does not take away from the fact that the low PWM floor means some needs of PWM workers are unmet.

It is important to note that the above discussion does not mean that every household is a single, elderly person or an individual between 55 and 64 years old. It is likely that many of the households are families with multiple dependents and single employed adults such as single, working mothers/fathers or old caregivers with elderly parents unable to work. While the MIS team is currently investigating what the minimum income benchmark is for other types of households, it is clear that with education, rent, medical fees, and much more, expenses for families can all pile up very quickly. More research needs to be done to account for households such as these, but it is clear that the PWM is unlikely to make the basic income standards required to live or support dependents [17].

### **Working Hours, Culture, and Complexity**

There is a relationship between wages and working hours: more wages are paid for longer working hours. It is clear that

Age Band	A: Basic Pay (Cleaning)	B: Employee share of CPF contribution	C: Employer share of CPF contribution	D: Monthly WIS Cash Payout	E: Monthly WIS CPF Payout	Take-Home Cash (A+D-B)	Gross Monthly Income (A+D+E)
<35	\$ 1,236.00	\$ 247.20	\$ 210.12	\$ -	\$ -	\$ 988.80	\$ 1,236.00
35-44	\$ 1,236.00	\$ 247.20	\$ 210.12	\$ 56.67	\$ 85.00	\$ 1,045.47	\$ 1,377.67
45-54	\$ 1,236.00	\$ 247.20	\$ 210.12	\$ 83.33	\$ 125.00	\$ 1,072.13	\$ 1,444.33
55-59	\$ 1,236.00	\$ 160.68	\$ 160.68	\$ 110.00	\$ 165.00	\$ 1,185.32	\$ 1,511.00
60-65	\$ 1,236.00	\$ 92.70	\$ 111.24	\$ 133.33	\$ 200.00	\$ 1,276.63	\$ 1,569.33
>65	\$ 1,236.00	\$ 61.80	\$ 92.70	\$ 133.33	\$ 200.00	\$ 1,307.53	\$ 1,569.33

Figure 4: Pay of workers in the cleaning industry for 1st July 2020 to 30th June 2021, accounting for WIS, CPF. [16].

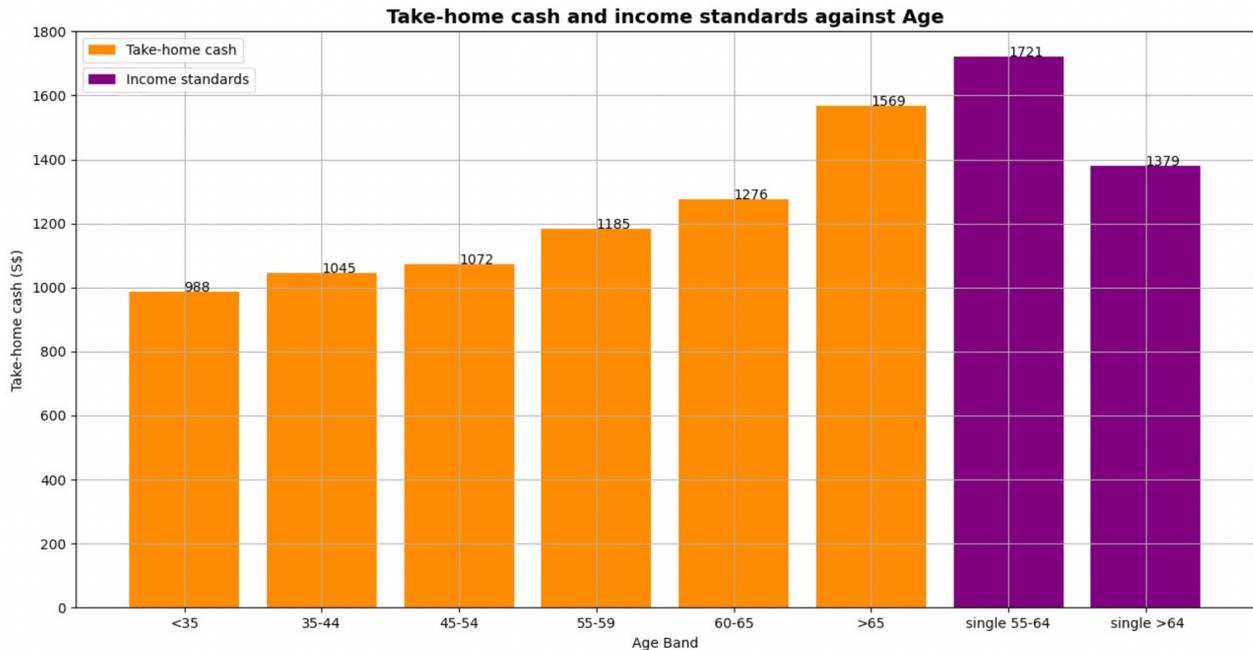


Figure 5: Data visualisation of take-home pay, accounting for WIS handouts and income requirements against age.

PWM workers cannot make ends meet on their singular salaries alone. While there will be households with multiple workers or income streams, there will also be single households.

These households have two ways, other than borrowing money, to make up for the income shortfall: work overtime, and/or work multiple jobs. PWM workers often do both. For example, a Rice Media interview with security guards found even those who earn more due to being situated higher on the PWM

ladder often take up additional jobs, even after factoring in overtime pay. The situation is likely worse for their lower-rung colleagues.

It is clear that employees in PWM industries are overworked. Workers in the security, cleaning, and landscaping industries work higher than average hours per week, as illustrated in Figure 6 (below), and frequently work six-day work weeks. This is despite the fact that higher-paid white-collar workers in Singapore work the norm: 9AM to 5PM

daily for five days a week.

Furthermore, many security guards often take on other jobs to supplement their income and support their families. A research study found that cleaners also take on longer hours to earn more money [18]. Unfortunately, the PWM's provisions seem to give little consideration to working hours, despite its interaction with wages. It does seem to be that for the security industry, like the other two industries, the PWM has left its workers underpaid and overworked.

While one could argue that cleaners and landscaping employees clock relatively lower working hours as compared to construction workers, it is important to note that cleaners and landscapers often work other part-time jobs to make ends meet. Hence, what is represented above

may not necessarily represent the true duration full-time cleaners, landscapers, and security guards are working. What is salient, however, is the long working hours faced by PWM workers.

Collectively, while long working hours and insufficient pay have led to careers in the PWM industries being relatively unattractive to the younger Singaporean demographic, cultural perceptions are also a significant deterrent. In Singapore, it is seen as culturally and socially unfit to work in a menial job such as a cleaner, security guard, or landscaping role, when the norm is to work a traditional 9-5 desk job. The more significant deterrent is the fact that stipulated PWM wages are around 60-70% lower than the median wage. Though the PWM signals a commitment to increase wages, the cultural perceptions of the industry remain

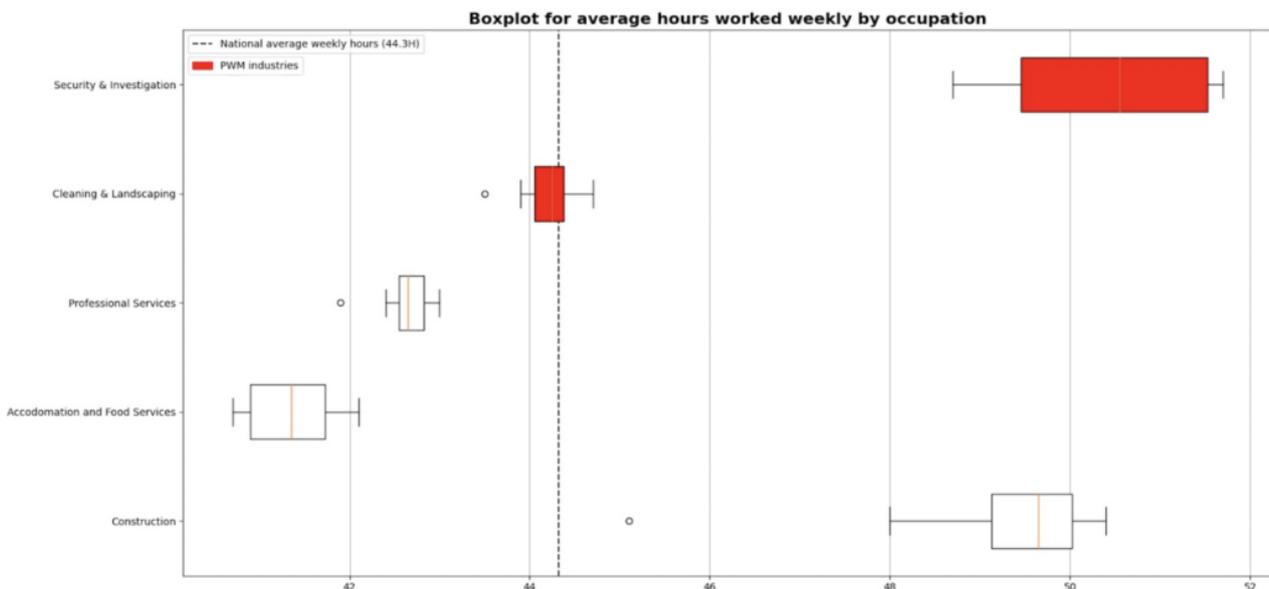


Figure 6: A comparison of average working hours of PWM industries against other professions [19].

unchanged with the PWM.

The final limitation of the PWM is its complexity. One can understand the PWM as a wage system by which employees are given the opportunity to upgrade their skills and gain higher wages. However, it is also an entire policy ecosystem. It works in conjunction with WIS and Silver Support Scheme to top up wages of workers. Furthermore, the policy has to be coordinated with foreign dependency quotas. This is due to the fact that if employers are able to import labour at cheaper wages compared to Singaporean residents, then employers will do that rather than comply with PWM regulations. Finally, the government as well as employers and labour unions, have to meet frequently to revise wages to account for inflationary pressures.

This complex nature of the PWM has three effects. Firstly, it makes it harder for employees under the PWM to fully understand what they are legally entitled to. Mr. Thomas had discussed how security agencies occasionally undercut each other [20]. While doing so, they often reduce the pay of employees below the PWM minimum, effectively breaking the law. Under the PWM, as there is complex bureaucracy involved, employees may not realise that they are being paid below the legal minimum or are having other benefits such as paid leave or breaks cut. This effect becomes exaggerated once we recognise that the people working these jobs tend to be less aware of the policy and legal codes that

dictate their employment conditions and rights. The PWM is a broad policy network of wage floors, skills ladders, and subsidies which are vast amounts of information that low-income workers don't have the time, resources, and confidence to understand. Prof. Ng finds in her research serious evidence of unaware cleaners and employers who take advantage of their unawareness to squeeze as much labour with minimum cost from them in this manner. Furthermore, considering the fact that low-income workers usually work overtime/other odd jobs to make ends meet, it is even more likely they do not have the time nor capacity to read up on such policies and legislation.

Secondly, the PWM is a challenge for the government to enforce as they must audit the books of firms to ensure that employers are complying with PWM regulations. Going back to the example of security agencies undercutting their competitors, a significant amount of manpower has to be dedicated by the government to ensure that security firms are not underpaying their employees as a means of gaining contracts. This second effect correlates with the third point that the bureaucracy maintaining the PWM overall becomes heavy and relatively expensive to maintain. Bureaucracy eventually becomes overladen in the sense that civil servants are required to go through a lot of training and paperwork to understand and enforce legislation that is complex, like the PWM.

In sum, while I believe that the PWM is a theoretically sound policy, as it stands and as it is being implemented at the moment, the PWM is insufficient in achieving the aim of providing a liveable wage for workers in the cleaning, security, and landscaping industries. It is a complex, expensive, and heavily bureaucratic system that falls short of

providing a dignified existence for low-income workers. While I offer no alternative pathways towards providing a decent pay, the revisions that must come to the PWM or the PWM's successor must take into account the demographic, cultural, and socio-economic conditions laid out in this piece.

## References

1. Tang, See Kit. "Tharman, PAP MPs Debate Minimum Wage, Policymaking with WP's Jamus Lim." Channel NewsAsia. September 3, 2020.
2. Chew, Sophie, and Andre Frois. "What The PWM Could Do That A Minimum Wage Can't: Make Buyers Pay Fair Prices." Rice Media. Rice Media, November 7, 2020. <https://www.ricemedia.co/current-affairs-features-progressive-wage-model-security-agencies/>.
3. Chew, Sophie, Edoardo Liotta, Louisa Lim, Andre Frois, and Ivan K. Wu. "How Much Progress Has The Progressive Wage Model Led To? We Asked Security Guards What They Think." Rice Media. Rice Media, October 14, 2020. <https://www.ricemedia.co/current-affairs-features-progressive-wage-model-security-guards/>.
4. "Progressive Wage Model for the Cleaning Sector." Ministry of Manpower Singapore, 2021. Accessed July 25, 2021. <https://www.mom.gov.sg/employment-practices/progressive-wage-model/cleaning-sector>.
5. Chew, Sophie, and Andre Frois. "What The PWM Could Do That A Minimum Wage Can't: Make Buyers Pay Fair Prices." Rice Media. Rice Media, November 7, 2020. <https://www.ricemedia.co/current-affairs-features-progressive-wage-model-security-agencies/>.
6. This is true for at least the cleaning and landscaping industries; the security industry has to rely on the Singaporean labour pool and can at best hire Malaysians.
7. Lim, Linda. "The Economic Case for a Minimum Wage: a Conversation with Linda Lim – Academia: SG." Academia.edu. Academia.edu, July 25, 2020. <https://www.academia.sg/academic-views/minimum-wage-conversation/>.
8. Chew, Sophie, and Andre Frois. "What The PWM Could Do That A Minimum Wage Can't: Make Buyers Pay Fair Prices." Rice Media. Rice Media, November 7, 2020. <https://www.ricemedia.co/current-affairs-features-progressive-wage-model-security-agencies/>.
9. Ng, Irene YH, Yi Ying Ng, and Poh Choo Lee. "Singapore's Restructuring of Low-Wage Work: Have Cleaning Job Conditions Improved?" *The Economic and Labour*

*Relations Review* 29, no. 3 (2018): 308–27. <https://doi.org/10.1177/1035304618782558>.

10. Min, Chew Hui. “IN FOCUS: The Wage Debate – How to Lift the Salaries of Those Earning the Least?” Channel NewsAsia. Channel NewsAsia, February 3, 2021.

<https://www.channelnewsasia.com/news/singapore/in-focus-singapore-progressive-wage-model-minimum-wage-13229084>.

11. The most obvious way to test this claim will be to look at the data. However, I was not able to do so as at the time of writing, the data available for the Occupational Wage Survey is not granular enough. Only processed data and statistics (such as median, 25th percentile, and 75th percentile) are published. While I could have looked at the variation in the wages with the above statistics, this data is distorted as the PWM pays older workers more money due to WIS handouts, as covered in this piece.

12. Ng, Irene YH, Yi Ying Ng, and Poh Choo Lee. “Singapore’s Restructuring of Low-Wage Work: Have Cleaning Job Conditions Improved?” *The Economic and Labour Relations Review* 29, no. 3 (2018): 308–27. <https://doi.org/10.1177/1035304618782558>.

13. Kenneth, Ler Yong Qin. “Has Singapore Raised the Wage Bar? Impact Evaluation of the Progressive Wage Model.” *National University of Singapore*. National University of Singapore, November 6, 2017. <https://scholarbank.nus.edu.sg/handle/10635/139005>.

14. Ng, Kok Hoe, You Yenn Teo, Neo Yu Wei, Ad Maulod, and Yi Ting Ting. “What Older People Need in Singapore: a Household Budgets Study.” *National University of Singapore*. National University of Singapore, August 16, 2019.

<https://scholarbank.nus.edu.sg/handle/10635/157643>.

15. Lim, Jingzhou. “Research into PWM .” Facebook, October 25, 2020.

<https://www.facebook.com/lim.jingzhou.7/posts/10159297333509645>.

16. Based on figures derived from Mr. Lim’s calculations.

17. An important caveat to note here is that security workers are however paid more than the figures calculated by Mr. Lim. This is why I have not included his calculations for security workers. The reason as to why this is so is because Mr. Thomas mentioned that by default security guards work 12 hours a shift for full-time positions. Thus, they earn about S\$2,000.

18. Ng, Irene YH, Yi Ying Ng, and Poh Choo Lee. “Singapore’s Restructuring of Low-Wage Work: Have Cleaning Job Conditions Improved?” *The Economic and Labour Relations Review* 29, no. 3 (2018): 308–27. <https://doi.org/10.1177/1035304618782558>.

19. I’ve included the working hours of these other occupations for a more representative comparison of PWM versus non-PWM industries. Furthermore, I’ve only analysed average working hours for the years 2019 and 2020 for relevancy and also because that is when the PWM came into effect for most of these industries. See [Statistical Table: Hours Worked \(mom.gov.sg\)](#).

20. Chew, Sophie, and Andre Frois. “What The PWM Could Do That A Minimum Wage Can’t: Make Buyers Pay Fair Prices.” Rice Media. Rice Media, November 7, 2020.

<https://www.ricemedia.co/current-affairs-features-progressive-wage-model-security-agencies/>.

This page is intentionally left blank.



**EQUAL JUSTICE &  
HUMAN RIGHTS**

# Improving Access to Mental Health Resources for Migrant Construction Workers in Singapore

In this policy memo, **Nicole Quah ('21)**, **Celine Lee ('24)**, and **Seow Wei-Ming Luke ('24)** observe that a lack of mental health education and employer behaviour regulation has culminated into a mental health crisis among migrant construction workers in Singapore, and propose that the Singapore government (1) provide manpower and financial support to NGOs currently providing mental health resources; (2) require employers to purchase insurance with mental health coverage for their employees and; (3) create a channel to disseminate mental health-related information to migrant workers with their employers and dormitory operators.

---

Lack of mental health education and employer behaviour regulation has created a mental health crisis among migrant construction workers in Singapore. Therefore, we must raise awareness on the importance of mental health in Singapore and encourage collaboration between non-governmental organisations (NGOs) and the government.

## Background and Analysis

With over 300,000 foreign migrant workers on work permits [1] as of June 2020, migrant workers' importance to the Singaporean economy is indisputable. [2] Yet, despite being essential, migrant workers have often been the subject of social, spatial, and institutional exclusions, leading to an unequal incorporation of migrant bodies in the city-state on the basis of their 'transient' status. [3]

Migrant workers' access to mental health

is one aspect that has long been neglected. This is especially concerning as migrant workers are uniquely susceptible to mental illness as a result of their work conditions. A 2015 study conducted by the Singapore Management University (SMU) discovered that 62% of the sampled migrant workers met the screening criteria for a Serious Mental Illness, as poor living conditions, the threat of deportation, and separation from their families, along with other reasons, make migrant workers particularly susceptible to mental health issues. [4]

These issues have been exacerbated by the Covid-19 pandemic. Singapore's successes in containing its community transmissions has been marred by its treatment of migrant workers, who are segregated in dormitories where heavy movement restrictions are imposed. The isolation of migrant workers in dormitories for long periods of time without guaranteed payment has led to

financial insecurity and feelings of entrapment. [5] There have been numerous self-harm incidents and suicides amongst the community over the past few months [6], though there are no official statistics or publicly accessible investigations into their causes.

Yet the mental health system available to migrant workers appears to be woefully inadequate.

Migrant workers often lack awareness of the available healthcare resources in general, compromising their access to care. A 2013 survey of 433 non-domestic migrant workers [7] found that only 27.6% of the respondents received or were aware of company-bought medical insurance. Of those, 67.7% reported that the information was not communicated in their native language. This gap is compounded within the context of mental health treatment, which is inaccessible to many migrant workers due to the enduring unaffordability of most treatments and the scarcity of affordable, NGO-provided ones.

Mental health treatment is often prohibitively expensive for migrant workers as it is excluded from the minimum health insurance coverage that employers are mandated to provide for migrant workers covered under the Employment of Foreign Manpower Act. [8] While employers have the option to purchase additional riders that cover mental health, most do not. Since current

legislation does not require employers to cover mental health costs, mental health issues are not considered as “emergency medical services”, and coverage is “highly dependent on employers’ goodwill”. [9] As a result, most forms of mental health treatment are prohibitively expensive for migrant workers.

Additionally, affordable forms of mental health support for migrant workers are limited. Currently, NGOs provide the bulk of affordable mental health services for migrant workers. NGOs such as the Migrant Workers’ Centre (MWC) has a 24-hour helpline manned by the organisation’s staff for workers who require any form of assistance, while medical NGO Healthserve provides a mental wellness hotline where workers can access medical information and submit requests for tele-counselling sessions conducted by trained volunteers.

### **Talking Points**

- Migrant workers are more susceptible to mental illnesses due to the threat of deportation, financial burden, and poor working conditions, but their medical insurance currently does not cover mental health treatments.
- Further, the majority of migrant workers are unaware of their medical rights as their employers rarely disclose information on how to access medical resources, let alone mental health resources.
- To address these vulnerabilities, the Ministry of Manpower (MOM)

should provide manpower and financial support to NGOs currently providing mental health resources to migrant workers and require employers to purchase insurance for mental health services for them. Additionally, the state could consider creating a channel that disseminates awareness of aforementioned mental health services and other mental health-related information.

### **The Policy Idea**

We recommend that the MOM could alleviate the burdens faced by migrant construction workers by (1) providing manpower and financial support to NGOs currently providing mental health resources; (2) requiring employers to purchase insurance for mental health services for their employees and; (3) creating a channel that disseminates mental health-related information to migrant workers.

More details are provided in Annexes A and B (p.41-2).

### **Policy Analysis**

Firstly, we recommend that the state considers upscaling existing mental health services provided by NGOs. Singapore's NGOs have spent years catering to the mental health needs of the migrant worker population. As case workers from these NGOs work with migrant workers on a daily basis, they are more familiar with migrant workers

and their needs [10] and are broadly considered to be more trustworthy and approachable than their state counterparts [11].

However, given that there are approximately 300,000 migrant construction workers, NGOs do not have sufficient employees to meet all their needs. Demand is substantial; within two months of launching the hotline, Healthserve had received more than 4,000 enquiries and 300 workers signing up for tele-counselling sessions. [12] As such, an expansion of mental health services for them is necessary.

It would be ideal for the state to help migrant workers via NGOs by providing financial support to train a larger pool of volunteers and employing professional manpower (e.g. counselors) for migrant workers.

Secondly, the MOM should mandate that employers purchase insurance for mental health services for their employees covered under the Employment of Foreign Manpower Act and bear the full cost of this insurance. Though the state might face resistance from employers unwilling to bear extra health insurance costs for migrant workers, ignoring this mental health crisis will create widespread negative consequences. For example, leaving the crisis unaddressed could lead to indirect costs of illness and loss of productivity among migrant workers. Furthermore, the lack of health rights given to migrant workers could also "undermine Singapore's reputation

as a regional and global economic hub” and leave wider repercussions in the long-term. [13]

Finally, the MOM should work with employers and dormitory operators to create a distribution channel that disseminates information, both online and via pamphlets and posters, about mental health, such as how to identify mental illness and where and how to seek help when ill. [14] Information should be circulated online (via WhatsApp, WeChat, and other relevant social media platforms) and via pamphlets and posters, which should be put around dormitories to ensure that migrant workers receive information about mental health resources. These should be emphasised in the standard orientation briefing when the workers first arrive in Singapore, and dormitory operators should be required to publicise the information. To increase transparency and ensure that employers do not disregard the mental health needs of migrant workers after the orientation briefing session, the MOM should legally require that employers and dormitory owners print and display mental health posters in multiple languages.

The provision of mental health awareness has been proven to be beneficial to the migrant worker population. In recent years, a social platform, “Pangyao”, has been successfully used in Hong Kong and Macau to disseminate mental health information. A similar channel could be

implemented in Singapore, resolving information asymmetry between employers and employees.

There is a lack of emphasis on mental health issues among the general Singaporean population. The lack of mental health resources and mental health literacy among Singaporeans reflect a wider social issue. [15] If the state elects to emphasise the mental health issues of a very vulnerable and marginalised population, we can subsequently ignite a national conversation on mental health awareness in general.

### **Key Facts**

- Currently, employers are required to purchase a minimum health insurance coverage of SGD 15,000 per worker per year. [16] However, this insurance should increase to include mental health services. Employers should not be allowed to pass this additional financial burden on to migrant workers.
- Posters that detail mental health resources available to migrant workers should be distributed on each floor of every block in migrant worker dormitories. Information on mental health resources should also be printed in a booklet disseminated to migrant workers during their orientation conducted by the MOM when they first arrive, to ensure that they are aware of the resources available.
- Currently, there are approximately 8 psychologists and 4 psychiatrists per

100,000 people in Singapore. [17] Given that there are approximately 300,000 migrant workers on work permits [18], at least 24 psychologists and 12 psychiatrists should be allocated to the

community to provide counselling sessions and treat mental health illnesses. These could either be professional manpower or university students majoring in clinical psychology.

## **Annex A: Expansion of Migrant Worker Mental Health Provisions**

If NGOs confirm that there needs to be an expansion of mental health resources provided to migrant workers, we suggest that possible expansion efforts include hiring additional mental health professionals for migrant workers. These professionals must speak different languages to cater to the needs of migrant workers.

In addition to hiring professionals, another possibility would be for the MOM to establish a traineeship program with NGOs to increase the volunteer pool. Students from universities (such as the National University of Singapore and Nanyang Technological University) training to become counsellors can have part-time or full-time traineeships at NGOs, where they help listen to the problems of migrant workers and assist them in getting the help they need. The MOM and the Ministry of Health should support this effort through the form of a grant or subsidy provided to NGOs. Also, the MOM should fund the traineeships. This will increase the number of psychologists and psychiatrists for migrant workers, so that they can access counselling and mental health treatment options.

## **Annex B: Distribution Channels**

We recommend that the MOM work with NGOs to create a distribution channel that circulates information about mental health conditions, resources, and treatments. This information should be distributed through brochures, posters, social media pages, and other online platforms that migrant workers use. These sources should also be made available in different languages to ensure that the information is fully comprehensible to all migrant workers. The first step to establishing this distribution channel would be to incorporate it into the standard orientation briefing conducted by the MOM when the foreign migrants first arrive in Singapore. In addition to workshops on First Aid practices and workplace safety measures, all migrant workers would be required to attend a 30-minute Mental Health Awareness session, in which a resource pack would be handed to each worker (in their native language).

The resource pack would contain the following information:

- a clear explanation on what mental health is;
- a list of common mental illnesses and their symptoms;

- a comprehensive action guide on what to do and who to seek help from when symptoms are identified;
- the addresses, phone numbers, and other information on at least three easily accessible mental health clinics, and;
- details on the workers' healthcare coverage and insurance policies.

## References

1. Excluding Foreign Domestic Workers
2. Ministry of Manpower. "Foreign Workforce Numbers." Government. Ministry of Manpower Singapore. Accessed October 11, 2020. <https://www.mom.gov.sg/documents-and-publications/foreign-workforce-numbers>.
3. Neo, Jaclyn L. "Riots and Rights: Law and Exclusion in Singapore's Migrant Worker Regime." *Asian Journal of Law and Society* 2, no. 1 (May 2015): 137–68. <https://doi.org/10.1017/als.2015.1>.
4. Harrigan, Nicholas M, and Koh Chiu Yee. "Vital Yet Vulnerable: Mental and Emotional Health of South Asian Migrant Workers in Singapore." Lien Center for Social Innovation, 2015.
5. Yea, Sallie. "This Is Why Singapore's Coronavirus Cases Are Growing: A Look inside the Dismal Living Conditions of Migrant Workers." *The Conversation*, April 30, 2020. <http://theconversation.com/this-is-why-singapores-coronavirus-cases-are-growing-a-look-inside-the-dismal-living-conditions-of-migrant-workers-136959>.
6. Aravindan, John Geddie, Aradhana. "Spate of Suicides among Migrant Workers in Singapore Raises Concern." *Reuters*, August 6, 2020. <https://www.reuters.com/article/us-health-coronavirus-singapore-migrants-idUSKCN2510QP>.
7. Ang, Jia Wei, Colin Chia, Calvin J Koh, Brandon W B Chua, Shyamala Narayanaswamy, Limin Wijaya, Lai Gwen Chan, Wei Leong Goh, and Shawn Vasoo. "Healthcare-Seeking Behaviour, Barriers and Mental Health of Non-Domestic Migrant Workers in Singapore." *BMJ Global Health* 2, no. 2 (March 2017): e000213. <https://doi.org/10.1136/bmjgh-2016-000213>.
8. Ministry of Manpower. "Medical Insurance Requirements for Foreign Worker." Ministry of Manpower Singapore. Accessed October 11, 2020. <https://www.mom.gov.sg/passes-and-permits/work-permit-for-foreign-worker/sector-specific-rules/medical-insurance>.
9. Rajaraman, Natarajan, Teem-Wing Yip, Benjamin Yi Hern Kuan, and Jeremy Fung Yen Lim. "Exclusion of Migrant Workers from National UHC Systems — Perspectives from HealthServe, a Non-Profit Organisation in Singapore." *Asian Bioethics Review*, August 3, 2020: 370. <https://doi.org/10.1007/s41649-020-00138-y>.
10. The Global Development Research Center. "NGOs: Advantages and Disadvantages." Accessed December 30, 2020. <http://www.gdrc.org/ngo/advan-disadvan.html>.
11. Poh, Yong Han. "Singapore's Migrant Worker Debate: Advocacy Amid a Pandemic." *The Diplomat*, April 12, 2020. <https://thediplomat.com/2020/04/singapores-migrant->

worker-debate-advocacy-amid-a-pandemic/.

12. Health Serve. “Health Serve Annual Report 2019.” Health Serve, 2019.

13. Harrigan, Nicholas M, and Koh Chiu Yee. “Vital Yet Vulnerable: Mental and Emotional Health of South Asian Migrant Workers in Singapore.” Lien Center for Social Innovation, 2015.

14. Tam, Wai Jia, Wei Leong Goh, Jeffrey Chua, and Helena Legido-Quigley. “健康是本钱 – Health Is My Capital: A Qualitative Study of Access to Healthcare by Chinese Migrants in Singapore.” *International Journal for Equity in Health* 16, no. 1 (June 15, 2017): 102. <https://doi.org/10.1186/s12939-017-0567-1>.

15. Tonsing, Karen N. “A Review of Mental Health Literacy in Singapore.” *Social Work in Health Care* 57, no. 1 (January 2, 2018): 27–47. <https://doi.org/10.1080/00981389.2017.1383335>.

16. Ministry of Manpower. “Medical Insurance Requirements for Foreign Worker.” Ministry of Manpower Singapore. Accessed October 11, 2020. <https://www.mom.gov.sg/passes-and-permits/work-permit-for-foreign-worker/sector-specific-rules/medical-insurance>.

17. Ministry of Manpower. “Manpower for Patients Receiving Psychiatric Treatment and Mental Health Support.” Government, January 6, 2020. <https://www.moh.gov.sg/news-highlights/details/manpower-for-patients-receiving-psychiatric-treatment-and-mental-health-support>.

18. Excluding Foreign Domestic Workers

## No More Corporal Punishment

In this op-ed, **Nicole Eng Wei Quah ('21)**, **Celine Lee Ka Leen ('24)**, and **Seow Wei-Ming Luke ('24)** argue for the corporal punishment to be banned in Singaporean schools, given little evidence for its benefits and ample literature on its negative consequences.

---

Although the current generation of young parents and Gen Xers are said to be less likely to spank their children [1], corporal punishment is still used in Singaporean schools. Do we really want to see the use of violence normalised in our educational institutions in today's society?

Corporal punishment, it seems, is very much prevalent in Singaporean schools today. While the Ministry of Education does not release statistics on the number of secondary school students that were subjected to corporal punishment, cases of corporal punishment are frequently discussed on internet forums [2], tabloid articles, and other platforms. While these punishments exist in both primary and secondary schools, our op-ed focuses on the latter. At this point, it is also essential to point out that only male pupils are caned in school [3].

The United Nations Committee on the Rights of the Child defines corporal punishment as “any punishment in which physical force is used and intended to cause pain or discomfort, however light.” [4] This includes the common punishment of spanking pupils on the hand with a whip or stick, as well as slapping, biting, or even kicking. [4] It is

often believed that physical discipline keeps children in line, increases their academic performance, and prevents them from developing into “unruly and uncontrollable citizens” [5].

As a colonial relic of the British legal system used to control students and to ultimately ensure compliance [6], corporal punishments in Singaporean schools perpetuate many negative aspects of our colonial history. Therefore, we argue that this archaic, ineffective, and immoral practice needs to go.

### **The Long-Term Consequences of Corporal Punishment**

There is little evidence that physical punishment works: in fact, studies have found that the use of physical force leads to an uncondusive learning atmosphere. [7] Physical punishment causes students to participate less in class [7] and makes them want to escape from classrooms [8]. Moreover, it creates tension within the teacher-student relationship [7], worsens students' academic performances, and increases their likelihood of dropping out of school. [8]

While corporal punishment can

sometimes increase discipline in the short-term, the use of physical force extracts a heavy toll in the long-term. [9] Corporal punishment can cause children to feel inferior to their peers, leading to the development of antisocial behaviors such as lying and acting impulsively. [10] Children may also become more defensive and aggressive, as well as have a higher tendency to engage in dating violence later on in life [11], demonstrating the lasting effects of corporal punishment.

### **Maintaining Discipline in Schools Without Caning**

Character building in primary, secondary, and tertiary institutions should focus on encouraging students to learn from their mistakes and change their behavior accordingly. According to research conducted by the Society for Adolescent Medicine [12], corporal punishment is ineffective in achieving these goals, and has been described as being “unproductive, nullifying, and punitive.” Given the many negative consequences of using corporal punishment, how can we teach children to learn from their mistakes and correct their behaviour without inflicting physical pain?

In her 2015 article, Simuforosa [9] theorises four alternative disciplinary methods to corporal punishment. First, teachers should develop strategies to create a better learning environment, such as by setting rules on appropriate classroom behaviour. Next, students

should have a stake in deciding these rules so as to increase “ownership of their learning and pride in their participation,” which will motivate them to behave more responsibly. Thirdly, teachers and students should respect each other and teachers should exhibit care, especially in communicating their expectations. Lastly, parents and teachers should work together – parents can encourage their children to abide by school rules and “accept responsibility for any misconduct on their part.”

All in all, schools should acknowledge that children cannot and should not be forced to change their behaviour through physical punishment; instead, we must emphasise communication and motivation [13].

Corporal punishment need not be a hallmark of a stellar education system or a disciplined, effective workforce. There are many Asian cities with excellent education systems that do not use corporal punishment. One example is Hong Kong, which ranked second in the 2015 OECD global school rankings [14] despite corporal punishment being banned in their schools and childcare centers [15].

Moving forward, school students should not have to fear the use of corporal punishment in schools. In fact, by banning corporal punishment, we provide students with better learning environments, enabling them to improve their academic performance.

In conclusion, to uphold the quality of education and defend children's rights, corporal punishment needs to be banned in schools. Schools can create lasting

change by using alternative forms of discipline that emphasises enhancing communication to improve student motivation and classroom dynamics.

## References

1. Perry, Susan. "Millennials and Gen Xers Are Less Likely to Spank Their Children than Previous Generations, U of M Researchers Find," MinnPost, July 28, 2020. <https://www.minnpost.com/second-opinion/2020/07/millennials-and-gen-xers-are-less-likely-to-spank-their-children-than-previous-generations-u-of-m-researchers-find/>.
2. Chin, Felicia. "Singapore Student to Be Publicly Caned for Being Late!," January 12, 2012. <https://sg.theasianparent.com/singapore-student-to-be-publicly-caned-for-being-late>.
3. Mokhtar, Faris. "Explainer: Can Students Be Caned in Schools and Can Parents Take Action against Educators?" TODAYonline, September 6, 2019. <https://www.todayonline.com/singapore/explainer-can-students-be-caned-schools-and-can-parents-take-action-against-educators>.
4. Commissioner for Human Rights, "Children and Corporal Punishment: 'The Right Not to Be Hit, Also a Children's Right'." Issue Paper (Commissioner for Human Rights, January 2008).
5. Ngussa, Baraka Manjale, and Samwel Mdalingwa. "Students' Perception on Corporal Punishment and Its Effect on Learning: A Case of Secondary Schools in Babati Rural District, Tanzania." *Mediterranean Journal of Basic and Applied Sciences* 1, no. 1 (December 7, 2017): 86.
6. Farrell, Colin. "Corporal Punishments in Singapore Schools," Research, World Corporal Punishment Research, 2019. <https://www.corpun.com/counsgs.htm>.
7. Akhtar, Saeeda, Ghafoor Abdul, and Abudul Ghafoor Awan, "The Impact of Corporal Punishment on Students' Performance in Public Schools." *Global Journal of Management, Social Sciences and Humanities* 4, no. 3 (July 1, 2018): 606–21.
8. Ngussa, Baraka Manjale, and Samwel Mdalingwa. "Students' Perception on Corporal Punishment and Its Effect on Learning: A Case of Secondary Schools in Babati Rural District, Tanzania." *Mediterranean Journal of Basic and Applied Sciences* 1, no. 1 (December 7, 2017): 84.
9. Simuforosa, Magwa. "Prohibition and Elimination of Corporal Punishment: What Are the Workable Alternative Disciplinary Methods?" *International Advanced Journal of Teaching and Learning* 1, no. 1 (2015): 1–6.
10. Khan, Mudasir, Amir Zada Asad, Shakeel Ahmed, and Imran Ahmed Sajid. "Students' Perspective on Corporal Punishment: A Case Study of High Schools Students in Peshawar, Khyber Pakhtunkhwa, Pakistan." *Pakistan Journal of Criminology* 6, no. 1 (2014): 103.
11. Ngiam, Xin Ying, and Serena S. W. Tung, "The Acceptability of Caning Children in Singapore: The Fine Line Between Discipline and Physical Maltreatment." *Journal of Developmental and Behavioral Pediatrics* 37, no. 2 (March 2016): 158–63.

<https://doi.org/10.1097/DBP.0000000000000247>.

12. Greydanus, Donald E, Helen D. Pratt, C. Richard Spates, Anne E. Blake-Dreher, Marissa A. Greydanus-Gearhart, and Dilip R. Patel. "Corporal Punishment in Schools." *Journal of Adolescent Health* 32, no. 5 (2003): 385–93. [https://doi.org/10.1016/s1054-139x\(03\)00042-9](https://doi.org/10.1016/s1054-139x(03)00042-9).

13. Akhtar, Saeeda, Ghafoor Abdul, and Abudul Ghafoor Awan, "The Impact of Corporal Punishment on Students' Performance in Public Schools." *Global Journal of Management, Social Sciences and Humanities* 4, no. 3 (July 1, 2018): 606–21.

14. "Hong Kong Runs Second in Global School Rankings, OECD Says." *South China Morning Post*, May 14, 2015. <https://www.scmp.com/news/hong-kong/education-community/article/1796084/hong-kong-runs-second-global-school-rankings-oecd>.

15. Chan, Wing-Cheong, "Legal Protection of Minors: Experiences of Four Common Law Jurisdictions in Asia." *Routledge Handbook of Families in Asia*, 1st edition, edited by Stella R. Quah. Abingdon: Routledge, 2015: 437.

## WeCARE: Expanding childcare awareness to facilitate employment for single mothers

In this policy memo, **Afiya Dikshit ('23)** and **Lim Tian Jiao ('23)** discuss how the inability to attain childcare inhibits single mothers from getting gainful employment and is due to the lack of awareness of existing assistance schemes, and propose that the government build a mobile application to bridge this information gap.

---

To help single mothers under 35 years old secure sustainable employment, Early Childhood Development Agency (ECDA) and Government Technology Agency (GovTech) should develop a mobile application, WeCARE, to make childcare information more accessible. WeCARE should be publicised under ECDA's existing KidSTART programme.

### Background and Analysis

Many single mothers under 35 years old face severely reduced employment opportunities. In 2017, the average gross monthly income of working unwed mothers under 35 years is SGD 1,800, which is in the 15th percentile of gross monthly income in Singapore, while their median income is SGD 600, which is in the 1.5th percentile. Although these statistics only refer to unwed mothers, we believe a similar disparity in incomes exists for other single mothers because of difficulties in juggling work and caregiving responsibilities [1]. This clear disparity in income contributes to a lack of financial capabilities for single mothers.

Lack of childcare support is a major factor for this; caregiving responsibilities force “single parents ... to work in part-time jobs that pay poorly” [2]. The inability to find childcare is a leading cause of unemployment and makes it difficult to maintain employment or attend job interviews. [3]

Single mothers do not take up childcare for various reasons. Firstly, many single parents see childcare as a service that they cannot afford [4]. Without sufficient incomes, they cannot afford to send their young children to childcare, yet without a safe space for their child, they are unable to find better employment. This leads to a Catch-22 situation, where single mothers cannot start working and raise their incomes unless their children are looked after, but they are unable to send children to childcare without sufficient incomes. [5]

However, this is a false paradox. ECDA's Kindergarten Financial Aid Scheme (KiFAS) heavily subsidises early childhood education [6]. Households with a gross income of less than SGD 3,000 can pay just SGD 3 a

month for full-day childcare at any of the 572 centres under the Anchor Operator Scheme [7], which receive government funding in return for capping their fees. As such, childcare fees are no longer prohibitive for the vast majority of lower-income families [8].

Rather, the lack of awareness of available schemes is a larger problem. “Time and again”, single mothers were found not to “know what further help might be available to them, or where to seek it” [9]. Lack of ready information about assistance schemes inhibits time-poor single mothers from comprehensively seeking out appropriate schemes and options.

Furthermore, the Housing Development Board’s policies do not consider single mothers with children as a family nucleus, so single mothers under the age of 35 are not eligible for subsidised housing. 75% of these mothers use rental or temporary housing [10], often with a maximum tenure of two years [11]. This makes it difficult for them to commit to enrolling children in childcare due to transportation and logistical uncertainty.

Such limitations make it especially difficult for single mothers to capitalise on existing schemes that alleviate the financial burden of childcare. This may trap mothers and children in a cycle of dependency and insufficient income.

### **Talking Points**

- Single mothers lack access to sustainable and economically viable

employment because of a perceived lack of suitable childcare, although government schemes already make childcare affordable for low-income single mothers.

- Single mothers face uncertainty about the logistical feasibility of childcare options for their children as they often have to shift living spaces and may be unaware of transportation facilities.
- Creating a mobile application that allows mothers to find suitable childcare centres in terms of cost, location and transportation helps mothers to coordinate more efficiently, while also showing them the convenience and ease at which they can operate.
- Disseminating information about the app through KidSTART, an existing door-to-door visitation programme for vulnerable families, can raise awareness about affordable childcare options.

### **The Policy Idea**

We recommend that a mobile application, WeCARE, be created under GovTech. WeCARE will be designed to feature childcare centre locations, contact and transportation details and timings.

Our target group is unwed, widowed, or divorced mothers, under the age of 35, with children between 18 months and 6 years, and with gross monthly incomes lower than SGD 2,000. WeCARE will help these mothers find suitable

childcare centre plans, providing them information about childcare timings and prices based on their location and income. This will make access to childcare centres easier.

We suggest using ECDA's existing KidSTART Home Visitation programme to publicise WeCARE. When children turn 18 months old, Home Visitors will introduce WeCARE to mothers in the target group during their scheduled home visits.

Key WeCARE features are highlighted in the Appendix (p.52).

### **Policy Analysis**

WeCARE provides single mothers with greater support to access long-term, formal childcare, so that they may seek and sustain employment. Given that Covid-19 has disproportionately affected lower-income earners in Singapore — where 51% experienced an income decline of more than 50% — an employment-oriented solution is timely [12].

The lack of secure housing for single mothers is a huge factor that hinders their utilisation of childcare facilities. With WeCARE, they can conveniently search and determine efficient and suitable plans and schemes for themselves and monitor the logistics of sending their children to a childcare centre.

Our smartphone-based solution is

equitable as it does not require users to own laptops to easily navigate key functionalities. Given that 9% of residents who did not own a laptop cited cost as their main reason, a mobile application could be more accessible for low-income mothers [13]. A 2017 study found that the average American spends 90% of their mobile time in apps rather than the mobile web. As these figures are likely to be similar in Singapore, mothers will likely find an app more intuitive and convenient.

WeCARE is in line with the government's Smart Nation digitisation drive, which aims to equip Singaporeans with technology to enhance everyday living [14]. For instance, Smart Nation initiatives have digitised hawker centres and introduced LifeSG, an integrated mobile application to access government services [15]. In addition, the government's official Covid-19 contact tracing app, TraceTogether, has 2.4 million downloads, showing that WeCARE has the potential for widespread adoption [16].

Furthermore, the government can quickly gather childcare data from 822 private childcare operators through ECDA's Partner/Anchor Operator Schemes [17]. ECDA-disseminated funding for the new school year could be made contingent upon them submitting relevant information for the app.

ECDA's KidSTART Home Visitation scheme has home visitors regularly visit parents/guardians of eligible children

from lower-income households to support them in child growth, health and nutrition till the child is three years old. The scheme has reached over 900 children since 2016, a number which is set to grow [18].

Leveraging on KidSTART allows us to directly introduce mothers to WeCARE and to subsidised childcare, addressing their lack of awareness about available options. Previous house visits by ECDA, pre-schools and voluntary welfare organisations (VWOs) have successfully increased preschool attendance among lower-income families [19].

Furthermore, using KidSTART as a publicity vehicle is feasible and cost-effective as home visitations already occur on a regular basis. Building upon

this scheme requires minimal training and expertise for Home Visitors.

### **Key Facts**

- The average monthly income of single unwed mothers under 35 in 2017 is SGD 1,800, while the median monthly income is SGD 600; the average and median income in Singapore is SGD 4,563 and SGD 4,232 respectively [20].
- Current subsidies mean that for households with a monthly income of less than SGD 3,000, full-day childcare costs just SGD 3 [21].
- Singapore's TraceTogether app was downloaded by 2.4 million users and has 1.4 million active users, showing the potential attractiveness of app-based interventions [22].

## Appendix

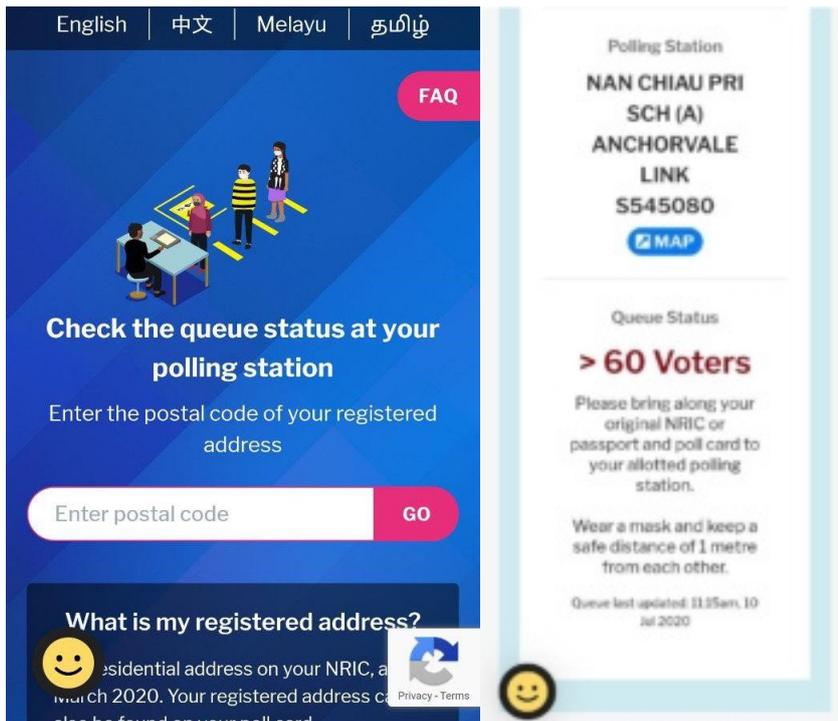


Figure 7: Screen grabs from the Singapore Elections Department's website. This website, <https://voteq.govwhere.gov.sg/>, allowed Singaporeans to quickly find out their polling station information simply by keying in their postal code. Similarly, WeCARE will present users with a list of childcare centres and their monthly rates when they key in their postal code and monthly income.

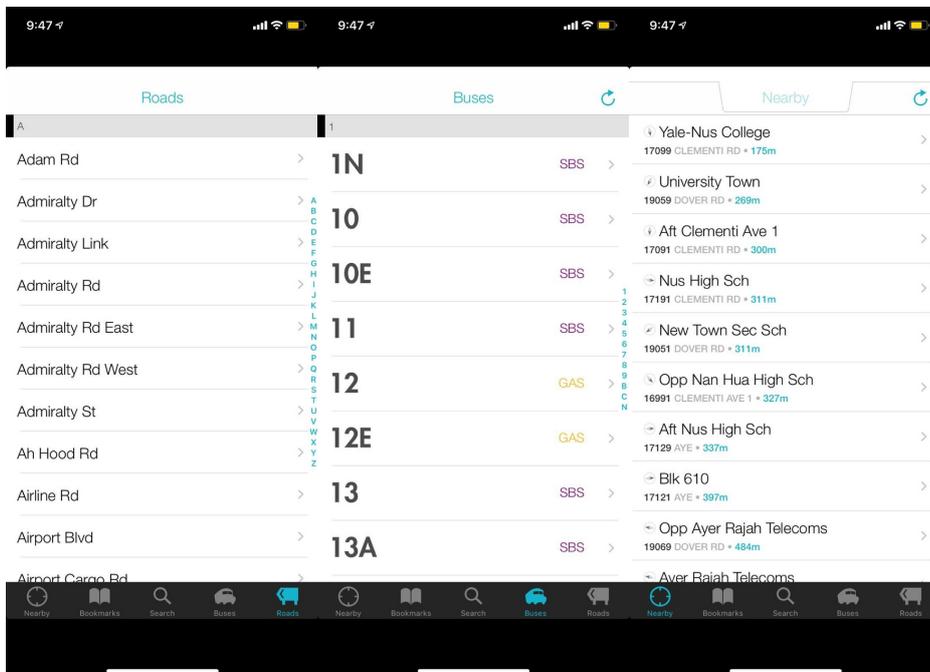


Figure 8: Screen grabs from SG Buses, a popular app displaying bus timings. Using a similar format, WeCARE will list all school bus timings for each childcare centre, allowing single mothers to see their transport options at a glance.

## References

1. Thiagarajan, Palaniappan. "Work-Family Role Strain of Single Parents: The Effects of Role Conflict and Role Ambiguity." *Marketing Management* 17 (January 2007): 82–94.
2. Glendinning, Emma, Catherine Smith, and Md Kadir. "Single-Parent Families in Singapore: Understanding the Challenges of Finances, Housing and Time Poverty." Lien Centre for Social Innovation: Research, 2015, 6.
3. "Single Parents." Single Parents | Research and Campaigns. Association of Women for Action and Research, March 1, 2017. <https://www.aware.org.sg/research-advocacy/singleparents/>.
4. Tai, Janice, and Priscilla Goy. "Torn between Work and Childcare." *The Straits Times*, January 19, 2016. <https://www.straitstimes.com/singapore/torn-between-work-and-childcare>.
5. Glendinning, Emma, Catherine Smith, and Md Kadir. "Single-Parent Families in Singapore: Understanding the Challenges of Finances, Housing and Time Poverty." Lien Centre for Social Innovation: Research, 2015.
6. "Subsidies and Financial Assistance." Early Childhood Development Agency. Accessed October 9, 2020. <https://www.ecda.gov.sg/Pages/Subsidies-and-Financial-Assistance.aspx>.
7. Early Childhood Development Agency. "Annex C: Anchor Operator and Partner Operator Schemes." Media Room. Ministry of Social and Family Development, 2020. <https://www.msf.gov.sg/media-room/Documents/Annex%20C%20-%20Anchor%20Operator%20and%20Partner%20Operator%20Schemes.pdf>.
8. "The Big Read: Educators Flag Absentee Rate of Children of Low-Income Families as a Concern." TODAYonline, August 1, 2015. <https://www.todayonline.com/singapore/big-read-educators-flag-absentee-rate-children-low-income-families-concern>.
9. Glendinning, Emma, Catherine Smith, and Md Kadir. "Single-Parent Families in Singapore: Understanding the Challenges of Finances, Housing and Time Poverty." Lien Centre for Social Innovation: Research, 2015, 1–34.
10. Rep. Single Parents' Access to Public Housing: Findings from AWARE's Research Project. Association of Women for Action and Research, 2016.
11. Glendinning, Emma, Catherine Smith, and Md Kadir. "Single-Parent Families in Singapore: Understanding the Challenges of Finances, Housing and Time Poverty." Lien Centre for Social Innovation: Research, 2015, 1–34.
12. DBS, "DBS on Covid-19's Impact on Singapore Residents' Financial Health: More Help Needed for Lower Income Group," Live More, Bank Less | DBS Bank, last modified August 18, 2020, [https://www.dbs.com/newsroom/DBS\\_on\\_Covid\\_19\\_s\\_impact\\_on\\_Singapore\\_](https://www.dbs.com/newsroom/DBS_on_Covid_19_s_impact_on_Singapore_).
13. Infocomm Media Development Authority, "Annual Survey On Infocomm Usage In Households And By Individuals For 2017," IMDA – Infocomm Media Development Authority, last modified 2018, <https://www.imda.gov.sg/-/media/Imda/Files/Industry-Development/Fact-and-Figures/Infocomm-Survey-Reports/HH2017-Survey.pdf?la=en>.
14. Smart Nation and Digital Government Office, "Pillars of Smart Nation," SMDGO, last

modified September 15, 2020, <https://www.smartnation.gov.sg/why-Smart-Nation/pillars-of-smart-nation>.

15. Government of Singapore, “LifeSG,” Government of Singapore, last modified August 19, 2020, <https://www.life.gov.sg/>.

16. Cindy Co, “Low Community Prevalence of COVID-19, 0.03% of People with Acute Respiratory Infection Test Positive: Gan Kim Yong,” CNA, last modified September 4, 2020, <https://www.channelnewsasia.com/news/singapore/covid-19-singapore-low-community-prevalence-testing-13083194>.

17. Early Childhood Development Agency. “Annex C: Anchor Operator and Partner Operator Schemes.” Media Room. Ministry of Social and Family Development, 2020. <https://www.msf.gov.sg/media-room/Documents/Annex%20C%20-%20Anchor%20Operator%20and%20Partner%20Operator%20Schemes.pdf>.

18. Early Childhood Development Agency, “KidSTART,” ECDA, last modified March 20, 2020, <https://www.ecda.gov.sg/Parents/Pages/KidSTART.aspx>.

19. “The Big Read: Educators Flag Absentee Rate of Children of Low-Income Families as a Concern.” TODAYonline, August 1, 2015. <https://www.todayonline.com/singapore/big-read-educators-flag-absentee-rate-children-low-income-families-concern>.

20. Ministry of Manpower, “Summary Table: Income,” Explore Statistics and Publications, last modified September 15, 2020, <https://stats.mom.gov.sg/Pages/Income-Summary-Table.aspx>.

21. Early Childhood Development Agency, “Infant and Child Care Subsidy Calculator,” Go.gov.sg, accessed October 9, 2020, <https://go.gov.sg/subsidycalculator>.

22. Cindy Co, “Low Community Prevalence of COVID-19, 0.03% of People with Acute Respiratory Infection Test Positive: Gan Kim Yong,” CNA, last modified September 4, 2020, <https://www.channelnewsasia.com/news/singapore/covid-19-singapore-low-community-prevalence-testing-13083194>.

# Accessing Housing in a Meritocratic Society: A Single Mother's Reality

This op-ed is an extension of the policy memo "WeCARE: Expanding childcare awareness to facilitate employment for single mothers" (p.48). Written by **Afiya Dikshit ('23)** and **Lim Tian Jiao ('23)**.

---

Access to safe, stable housing is widely regarded as a fundamental right. Yet, in a country with one of the highest home ownership rates in the world, single parents in Singapore still struggle to attain affordable housing for themselves and their children.

## The Problem

Singapore's stringent housing policies are a bane for a particularly marginalised population: divorced mothers facing limited employment opportunities.

Mothers often take on the brunt of caregiving burdens in a household. During their marriages, many mothers leave the workforce — in 2018, 81% of women [1] outside of the labor force cited family responsibilities as the main reason for not seeking employment — or face reduced career progression.

The disadvantages of leaving or slowing down careers are apparent after a divorce, especially for homemakers who suddenly find themselves the sole breadwinners. Women who attempt to reenter the workforce after a long hiatus are met with few employment

opportunities. For those with limited family support, childcare may constrain them [2] to poorly-paid part-time jobs, preventing them from increasing their income.

After divorce, many single mothers also sell the flats they had previously resided in or jointly owned with their ex-spouses, leaving them and their children in need of alternative housing. Given their financial constraints, it may seem clear that government provisions have to be put in place to support single mothers' search for stable housing.

However, government housing laws are unable to bridge this gap.

The Housing Development Board (HDB) debars individuals from renting a HDB apartment within 30 months [3] of selling their previous apartment. Although this debarment period is waived for parents who have full custody of their child [4], it prevents mothers without full custody from immediately finding a safe, affordable living space if they lack the means to purchase a flat.

Furthermore, a \$1,500 monthly income cap on HDB subsidised rental housing cuts off many lower-income mothers. The Association of Women for Action and Research (AWARE) study found that 47.4% of respondents [3] who applied for rental housing faced difficulties because they earned more than the income cap.

Without access to stable and affordable public housing, single mothers are often forced [5] to rent on the open market at higher prices, or move in with relatives—an option that many are hesitant to turn to, for fear of conflict with or imposition on their family.

### **Policies Penalise Mother and Children Alike**

Lack of social support for non-nuclear families can penalise single mothers for liberating themselves from toxic or abusive marriages. This disincentivises mothers from leaving dangerous family situations, leading to worse conditions for mothers and children alike.

The time and energy mothers spend battling for housing can be better spent securing employment opportunities. Reducing barriers to housing would allow them to better participate within Singapore's social system, helping them support their families.

Singapore's meritocratic system should offer everyone fair educational opportunities regardless of their social background. Lee Hsien Loong, Prime

Minister of Singapore, said in 2018 that meritocracy can be indicated by every child having a “good start in life, regardless of which family they are born in.” [6]

But for children growing up in single-parent families, unstable housing and constant uncertainty are realities that hinder development. Government policy uplifts lower-income children through academic and financial assistance [7], but ignores the fact that family circumstances are inextricable from student performance. Can we expect disadvantaged children to thrive if they are left to study in cramped one-room spaces, along with rowdy younger siblings? Or what if they suffer a lack of privacy and loss of dignity on a daily basis by living with relatives who make it clear that they are not wanted in the shared space [5]?

In our meritocratic society, surely more can be done to level the playing field.

### **What's Next?**

Louis Ng, a Member of the Parliament of Singapore (MP), recently appealed to the Ministry of National Development (MND) to implement objective criteria on how discretionary housing applications — the category single mothers use to apply for rental post-divorce — are evaluated. This appeal was rejected on the grounds that the Government needs to exercise maximum flexibility [8] in deciding whether or not to grant appeals for each case.

However, problems in “case-by-case” judgement remain. According to AWARE’s study, of the 69% of single mothers who sought help from an MP to access public housing, 55% were unable to access it [3]. HDB officers do not always explain [3] why single mothers’ housing applications have failed, or what alternatives are available moving forward.

Surely more can be done in this regard. Instead of a fixed criteria for housing applications, MND could commit to a concise written explanation of the reasons behind failed housing appeals, and the immediate steps an applicant could take to make their next application more successful. This would give single

mothers concrete actionables towards their housing goals.

Next, the government could allocate a larger proportion of flats for rental housing. High occupancy rates of public rental housing — 97.4% in 2013 [8] — suggest that demand is high. Increasing supply also ensures that families who need housing can access it.

In Singapore, policies ensuring both near-universal homeownership and an equal playing field for all have been praised locally and abroad.

We only ask that single mothers and children are fairly included in both.

## References

1. Hingorani, Shailey. “Why Are Mothers Penalised at Work?” May 15, 2019. <https://www.todayonline.com/commentary/why-do-mothers-get-penalised-work>.
2. Glendinning, Emma, Catherine Smith, and Md Kadir. “Single-Parent Families in Singapore: Understanding the Challenges of Finances, Housing and Time Poverty.” Lien Centre for Social Innovation: Research, 2015.
3. AWARE. Single Parents’ Access to Public Housing: Findings from AWARE’s Research Project. 2016.
4. Chan, Joanne. “Flat Debarment Period Waived for Divorcees with Children.” CNA, 24 Mar. 2017, [www.channelnewsasia.com/news/singapore/flat-debarment-period-waived-for-divorcees-with-children-8441988](http://www.channelnewsasia.com/news/singapore/flat-debarment-period-waived-for-divorcees-with-children-8441988).
5. Kok, Xing Hui. “Accommodate Single Parents in Housing Policies, Urges Aware.” The Straits Times, February 16, 2017. <https://www.straitstimes.com/singapore/housing/accommodate-single-parents-in-housing-policies-urges-aware>.
6. Kwang, Kevin. “Singapore Society Must Maintain ‘Informal and Egalitarian Tone’: PM Lee on Tackling Inequality.” CNA, 16 May 2018, [www.channelnewsasia.com/news/singapore-society-must-maintain-informal-and-egalitarian-tone-pm-10239110](http://www.channelnewsasia.com/news/singapore-society-must-maintain-informal-and-egalitarian-tone-pm-10239110). Accessed 7 Dec. 2020.
7. Ministry of Social and Family Development. *Improving the Lives of Low-Income and Vulnerable Families in Singapore*. November, 2018, <https://www.msf.gov.sg/publications/>

Pages/Improving-the-Lives-of-Low-Income-and-Vulnerable-Families-in-Singapore.aspx.

8. Ministry of National Development. “Reply by SPS Sun Xueling in Response to Adjournment Motion on ‘Providing Housing for Single Unwed Parents.’” Ministry of National Development Speeches, Ministry of National Development, 2 Sept. 2019, [www.mnd.gov.sg/newsroom/parliament-matters/speeches/view/reply-by-sps-sun-xueling-in-response-to-adjournment-motion-by-mp-louis-ng-kok-kwang-\(nee-soon-grc\)-on-providing-housing-for-single-unwed-parents](http://www.mnd.gov.sg/newsroom/parliament-matters/speeches/view/reply-by-sps-sun-xueling-in-response-to-adjournment-motion-by-mp-louis-ng-kok-kwang-(nee-soon-grc)-on-providing-housing-for-single-unwed-parents).

## Preschools for the People: An Examination of Singapore's Early Childhood Education Landscape, Part I

"Preschools for the People" is a two-part op-ed series examining the current state of quality and access in the Early Childhood Care and Education sector. In the first part, **Afiya Dikshit ('23)**, **Dineshram Sukumar ('24)**, **Lim Tian Jiao ('23)**, **Shanna Kaur ('23)**, and **Zen Alexander Goh ('23)** zoom into the varied definitions of quality in the sector and evaluate recent government measures to uplift quality and improve teacher training and retention.

---

Singapore's 2020 Census revealed that the country's birth rate is at its lowest recorded. Considering the high costs and stresses [1] of raising a child here, this is perhaps unsurprising. This is apparent even in the search for preschool — the Early Childhood Care and Education (ECCE) sector can be difficult to navigate, with a wide array of choices on one hand and limited spaces on the other.

In response to these challenges, the Singapore government has stepped up its commitment to childcare provision in recent years. New initiatives are regulating the sector, providing new opportunities to preschool teachers, and expanding access to and affordability of childcare. How have these initiatives affected quality and access in the ECCE sector?

Roosevelt@YNC speaks to industry stakeholders to find out more.

### A Snapshot of the Landscape

With the exception of 36 Ministry of Education (MOE)-run Kindergartens [2], Singapore's ECCE scene remains a privatised industry with about 1,900 preschools in operation [3]. Though pre-primary education is not compulsory, ECCE remains critical for two key reasons: it supports mothers [4] in returning to the workforce and prepares children [5] for the rigours of formal education.

The Early Childhood Care and Education (ECCE) landscape has become more competitive in recent years, in part because of a mismatch between demand and supply. In 2017, a shortage of childcare spaces meant that some parents in Punggol and Sengkang had to wait up to 12 months for a spot for their children.

Furthermore, as a loosely regulated sector with a wide range of providers, Singapore's ECCE landscape has also been noted to be of "uneven quality" [6], with stark fee differences contributing to unequal levels of access to preschool

education.

The Singapore government is increasingly intervening in the sector to ensure that baseline standards of quality and affordability are met. In 2019, Prime Minister Lee Hsien Loong announced that Singapore's S\$1 billion annual spending on early childhood education will "more than double" over the coming years. This target persists even amidst economic headwinds from the Covid-19 pandemic [7].

## **Quality in ECCE**

### Understanding Quality in ECCE

Among the various government expenditures on ECCE, a significant portion is allocated to enhancing quality. The Early Childhood Development Agency (ECDA) has stated that quality education is necessary to ensure "developmentally appropriate learning experiences for young children to develop holistically and nurture positive attitudes towards learning" [8].

Nevertheless, the issue of quality in early childhood education remains a challenge for the ECCE sector, since there is no fixed definition of the term. Quality in the ECCE sector encompasses a variety of elements, including teacher-student ratio, teacher qualifications, classroom experiences and interactions, and curriculum [9]. Any combination of these factors affects the overall quality of the ECCE services provided. While recent measures are comforting, the overall quality of the ECCE sector is not

fully clear.

We categorise efforts to uplift quality into two main components: (1) creating baseline standards that the ECCE industry has to adhere to; and (2) enhancing ECCE pedagogy and delivery with features such as experiential learning and "warm and supportive" teacher-student relationships, which result in "intellectual curiosity and keen inquiry" among students [9]. As the former plays a larger role in ensuring more children receive an acceptable baseline quality of ECCE, it is no surprise most government ECCE initiatives aim to regulate and uplift ECCE baseline standards.

### Setting standards on teacher training

Most prominently, the government has long recognised the importance of introducing a top-down notion of educator training. Since 2008, the MOE has endorsed training accreditation schemes to enhance the consistency of teacher training across the board [10]. However, a 2012 Lien Foundation report [11] posited that teachers are inclined to attend the "quickest and easiest" programs, suggesting that approved courses vary in rigour and content. This could hamper the effectiveness of training should teachers shy away from more effort-intensive but important programmes. The sheer variety of private training providers further exacerbates the quality discrepancies between various training programs.

To remedy this, the National Institute of

Early Childhood Development (NIEC) was set up in 2019 to raise “standards of preschool teacher training” [12]. NIEC works with ECDA to develop quality preparatory and professional development for ECCE educators with a degree of national standardisation that was previously absent. In doing so, it aims to better prepare and upskill ECCE educators, enabling them to deliver higher standards of ECCE services. NIEC is also working towards standardising training curriculum for ECCE educators across itself and private training agencies.

However, given NIEC’s recent inception, it is too early to definitively see the effectiveness of such measures. Dr. Sandra Wu Pinhui, Lecturer (Policy, Curriculum and Leadership) at Singapore’s National Institute of Education, believes that for effectiveness to be seen, standardisation efforts would require time, rounds of revision, refinement and implementation to meet quality training standards.

#### More transparent benchmarks welcome

Additionally in 2019, ECDA moved towards better regulation of quality by refining SPARK, its ECCE quality assurance framework. SPARK assesses and accredits Early Childhood Development Centres via a quality rating scale, which was revised to integrate quality indicators for programmes that cater to children from birth to six years and include additional indicators.

Take-up has been relatively strong in the

ECCE sector — although accreditation is not compulsory, close to 50% of preschools have been SPARK-certified as of 2020 [13]. This points to an increased recognition of the importance of this baseline direction.

SPARK certification serves as an indicator of quality for preschools to meet and for parents to expect. However, the certification is awarded based on evaluation across 8 criteria and these scores are not made publicly available. This means it is easy to be unsure of what areas of quality a SPARK-certified preschool excels in.

To prevent this, it would be helpful to highlight the criteria that a preschool excels in. SPARK certification ought to be viewed as a minimum accreditation for preschools, rather than as a sign of excellence. Instead, more emphasis should be placed on educating parents on what it means for a pre-school to be SPARK-certified, suggests Professor of Early Childhood Lynn Ang, who has co-authored two extensive research studies into Singapore’s early childhood education scene. These would give greater clarity of the criteria for SPARK certification and enable parents to make more informed decisions about the preschool for their children.

#### Respect and recognition remain core issues

Besides challenges in forming frameworks to evaluate ECCE services, undervaluation of jobs in the ECCE sector remains a significant obstacle

when it comes to retaining quality educators [14].

The government has made efforts to attract more individuals to enter the ECCE sector through traineeship postings and work attachments. Over 1900 job postings have been made available through the skills framework developed by SkillsFuture Singapore, EDCA, and Workforce Singapore (WSG), in partnership with early childhood stakeholders [15]. Despite these efforts in anticipation of the increased demand for ECCE services, below-average salaries continue to be a hurdle.

In 2020, the median gross monthly income from work [16] (including CPF contributions) for full-time employed residents was S\$4,534. However, many ECCE teachers make significantly less than this figure (see Figure 9 below). Only educators under the leadership track, who take on centre or teacher leadership roles, can expect to earn the median or higher, between the range of S\$3,100 and S\$7,600.

To further address the undervaluation of

ECCE practitioners, ECDA began giving out yearly awards from 2019 to recognise exemplary individuals in the ECCE field, so as to increase its professional appeal [17]. However, this does little to correct the societal undervaluation of ECCE jobs in practice. Practitioners have often cited a lack of support in their early career as well as overbearing pressure from parents as some of the challenges they face [18]. These mounting pressures can lead to burnout.

As Prof. Ang and Dr. Wu noted, challenges such as parental pressures point to a large societal issue: a lack of understanding and appreciation of the vital role that ECCE practitioners play. Rather than relying solely on practitioners and regulators within the ECCE sector to alleviate overbearing pressures from parents, the government and parents alike should recognise the part they have to play in supporting ECCE practitioners.

Lastly, it must be noted that there is no one catch-all definition of a good ECCE institution: quality depends very much on a child’s individual needs. A child

	Median Gross (nationwide)	Educators (work with children 2 months to 4 years old)	Educators on teacher track (work with children between 4 and 6 years)	Educators on leader track (centre or teacher leadership focus)
Monthly Income (in SGD)	4,534	1,800 to 3,150	2,200 to 3,550	3,100 to 7,600

Figure 9: Monthly income ranges for educators in the ECCE sector. [15]

could be enrolled in a preschool that meets all the ‘model’ pedagogical frameworks, but the final benchmark of quality education lies in whether or not the child enjoys and is receptive to learning at their preschool. Singapore’s highly competitive and academic-driven society could encourage parents to choose academically rigorous preschools that may not be best-suited to their child instead of centering on their child’s developmental needs, Prof. Ang noted. As such, more can be done to inform parents on the role of the ECCE sector in their child’s development as well as to develop a deeper appreciation of the practitioners they interact with.

Without a paradigm shift that prioritises child development over precocity, there is unlikely to be a sustainable reduction in pressures faced by ECCE practitioners, as practitioners will have to juggle child development and parental expectations of academic success, detracting from their ability to prioritise child development. As a consequence, retaining quality ECCE practitioners will remain an uphill battle.

In the second part of this series, we discuss government measures and barriers to access in the ECCE industry.

*Roosevelt@YNC thanks our expert interviewees for their valuable contributions to our series.*

**Dr. Wu Pinhui, Sandra (吴品慧)**, EdD, is currently teaching pre-service teachers and Masters students at the National Institute of Education, an institute of Nanyang Technological University, Singapore. She is the programme leader for the Master of Arts (Educational Management) programme. Prior to joining academia, she had worked in government ministries serving early childhood education and was adjunct lecturer with National Institute of Education International and Singapore University of Social Sciences. She has conducted research in the local pre-school and primary school contexts, and early childhood arts education in Melbourne.

**Prof. Lynn Ang** is Professor of Early Childhood and Vice-Dean for Research at UCL, Institute of Education in London, United Kingdom. Her research interests include early childhood education across cultures particularly in Southeast Asia and the Asia-Pacific region. Prof. Ang is interested in the social, cultural, and policy influences on children’s development and early learning in a range of formal and informal contexts. Her research centers on the early years curriculum, international early years policy, and issues of diversity and inequality. Prof. Ang is particularly interested in constructions of early childhood care and education from an international perspective, the impact of research, and the ways in which socially relevant research and advocacy for children and families are translated into policy and practice.

**Ms. Chong Ning Qian** is a former Senior Executive of Research at the Association of Women for Action and Research (AWARE). Her research at AWARE delved into women and children’s rights with regards to early childhood education, culminating in news articles and AWARE reports. She has written numerous policy papers and also made policy suggestions to the government. Ms. Chong has also published in newspapers to provide a feminist analysis on numerous issues including burdens women face in the workforce. Her work also extends to single parents, for whom Ms. Chong has heavily advocated for greater accessibility to housing.

## References

1. Tan, Poh Lin. “Lessons from Singapore on Raising Fertility Rates .” Lessons from Singapore on Raising Fertility Rates. Accessed August 2, 2021. <https://www.imf.org/external/pubs/ft/fandd/2020/03/lessons-from-singapore-on-raising-fertility-rates-tan.htm>.
2. “Ministry of Education.” Overview of MOE Kindergarten. Ministry of Education, July 26, 2021. <https://www.moe.gov.sg/preschool/moe-kindergarten/overview/>.
3. Annual Factsheet on ECDC Services. Early Childhood Development Agency, 2021. <https://www.ecda.gov.sg/Documents/Resources/ECDA%20Factsheet.pdf>.
4. Klerman, Jacob Alex, and Arleen Leibowitz. ‘Child Care and Women’s Return to Work After Childbirth’. *The American Economic Review* 80, no. 2 (1990): 284–88.
5. Kaveri, G. “Commentary: Getting Kids Ready for Primary School Has to Start Even before They Attend Pre-School.” Channel NewsAsia, April 16, 2021. <https://www.channelnewsasia.com/news/commentary/kids-preparation-for-primary-one-school-preschool-montessori-14567592>.
6. *Vital Voices for Vital Years 2: Perspectives on Early Childhood Development in Singapore*. Singapore: Lien Foundation, 2019.
7. Karuppiah, N. “Want your kids to have a high quality preschool education? Here’s what it means.” TODAYonline, March 4, 2020. <https://www.todayonline.com/commentary/kids-quality-pre-school-education-parenting-childcare>.
8. ‘Improving Quality and Affordability of Pre-School Education’. Accessed 19 July 2021. <https://www.ecda.gov.sg/PressReleases/Pages/Improving-quality-and-affordability-of-pre-school-education.aspx>.
9. Lim, Sirene. “Commentary: Long-Neglected but Now in the SPOTLIGHT, Singapore’s PRE-SCHOOL Sector.” Channel NewsAsia, September 15, 2019. <https://www.channelnewsasia.com/news/commentary/pre-school-enhanced-subsidies-access-moe-kindergartens-11890488>.
10. ‘PQAC Accreditation Standards’. Ministry of Education, 2008. Accessed 19 July 2021. [https://www.ecda.gov.sg/Documents/pqac\\_accreditation\\_standards.pdf](https://www.ecda.gov.sg/Documents/pqac_accreditation_standards.pdf).
11. Ang, Lynn. *Vital Voices for Vital Years: A Study of Leaders’ Perspectives on Improving the Early Childhood Sector in Singapore*. Singapore: Lien Foundation, 2012.

12. About Us | Early Childhood Education Singapore | NIEC', National Institute of Early Childhood Development, 2021. Accessed 19 July 2021. <https://www.niec.edu.sg/about-niec/about-us/>.
13. Annual Factsheet on ECDC Services. Early Childhood Development Agency, 2021. <https://www.ecda.gov.sg/Documents/Resources/ECDA%20Factsheet.pdf>.
14. *Vital Voices for Vital Years 2: Perspectives on Early Childhood Development in Singapore*. Singapore: Lien Foundation, 2019.
15. Yang, Calvin. "More than 1,900 Jobs Available in Early Childhood Sector; 8 in 10 for PMETs." The Straits Times, November 2, 2020. <https://www.straitstimes.com/singapore/jobs/more-than-1900-jobs-available-in-early-childhood-sector-8-in-10-for-pmets>.
16. 'Summary Table: Income'. Ministry of Manpower, 2021. Accessed 19 July 2021. <https://stats.mom.gov.sg/Pages/Income-Summary-Table.aspx>.
17. 'ECDA Awards'. Early Childhood Development Agency, 2021. Accessed 19 July 2021. <https://www.ecda.gov.sg/Educators/Pages/ECDA-Awards.aspx>.
18. *Vital Voices for Vital Years 2: Perspectives on Early Childhood Development in Singapore*. Singapore: Lien Foundation, 2019.

## Preschools for the People: An Examination of Singapore's Early Childhood Education Landscape, Part II

"Preschools for the People" is a two-part op-ed series examining the current state of quality and access in the Early Childhood Care and Education sector. In the second part, **Afiya Dikshit ('23)**, **Dineshram Sukumar ('24)**, **Lim Tian Jiao ('23)**, **Shanna Kaur ('23)**, and **Zen Alexander Goh ('23)** look into the accessibility of the sector and synthesise the issues of quality and access to deliver insights regarding the industry as a whole.

---

### Access to Early Childhood Care and Education (ECCE)

#### The push for more affordable childcare

Singapore's preschool enrollment rate is very high — as of 2016, over 90% of Singaporean children aged five to six years are enrolled in preschool [1]. Even so, the government has taken further steps to widen the affordability and accessibility of childcare.

For instance, the Early Childhood Development Agency (ECDA) has expanded its childcare subsidy schemes to make raising children more affordable. These measures provide up to S\$767 in monthly subsidies to households with a monthly income ceiling of S\$12,000 [2].

Childcare centres also include those under the Anchor Operator Scheme (AOP) and the Partner Operator Scheme (POP). The former began in 2009 and supports preschool operators, while the latter started in 2016 and supports childcare centres, to provide good quality and affordable ECCE to children.

ECDA has appointed 324 childcare centres under POP and 5 preschool operators under AOP as of now [3]. Both schemes provide additional subsidies for lower income families.

From 2018, anchor operators also opened “mega childcare centres” in high-demand estates, offering a total of 2,700 places [4]. These bring affordable childcare within the convenient reach of many families.

#### Some still fall through the cracks

While the government has taken commendable action to expand access, there is still room to reach out to specific demographics, such as children from low-income families. While preschool enrolment rates are high on paper, some low-income children fall through the cracks. Additionally, preschool teachers have flagged higher absenteeism from low-income children as a source of concern [5].

This is concerning because quality ECCE has lasting effects on children's holistic growth and learning potential,

even more so for children growing up in disadvantaged backgrounds [6]. Upon entering the formal school system in Primary 1, children are also expected to demonstrate a baseline of cognitive and social competencies, much of which can be learnt in preschool [7]. Should lower-income children be unable to tap on a strong ECCE foundation, academic and social inequality could snowball in their formal schooling years [8].

Ms. Chong Ning Qian, former Senior Executive at Association of Women for Action and Research (AWARE), was part of the research and advocacy team that produced a report [9] on low-income women's experiences juggling work and care. Ms. Chong explained that despite prevailing subsidies, low-income households may find it difficult to access the highest level of subsidies due to high compliance costs. To unlock a significant Additional Subsidy from ECDA, worth up to S\$1,160 monthly in infant care or S\$617 in childcare subsidies, families have to be dual-income (see Figure 10, p.68). That is, in addition to a working father, a mother has to work at least 56 hours a week [10].

In AWARE's experience, many low-income mothers face issues meeting the work requirements. In cases of informal or home-based work, work hours could be irregular and difficult to document. Those on short-term contract jobs may also find it difficult to get the full range of subsidies if their contracts are not renewed.

Moreover, childcare centres are unable to accommodate low-income parents who work flexible hours or overtime. Ms. Chong iterated that as of August 2020, only about 4% of centres operated beyond 7 p.m. on weekdays, "catering to the needs of parents who work outside standard hours". As a result, childcare centres become less attractive to parents working odd hours, who must look for alternatives.

Special Approvals are available for individuals that do not meet the requirements for specific reasons, including if mothers are pregnant or looking for employment. [11] However, applications are assessed on a case-by-case basis, often require substantive supporting documentation, and lead to a limited period of assistance. As such, applicants often require assistance from a social worker, who guides applicants through the process. In some cases, a social worker's "letter of recommendation" becomes key to accessing subsidised childcare [12]. However, not every applicant is assigned a social worker and they may thus be excluded from accessing the full range of subsidies.

Furthermore, while childcare operators are compensated by the government for the additional subsidies themselves, processing subsidies incur high administrative costs which are not fully captured by the existing subsidy system. Maintaining records of subsidy appeals and grants as well as mothers' employment statuses requires extensive

paperwork and continuous communication between the operators, parents, and ECDA. This places immense pressure on the operators, which then creates a “disincentive for

operators to enrol low-income children” [13].

The need for greater, more targeted support

To widen access, further government support is crucial. The government is making encouraging moves in this direction, announcing that by “around 2025”, 8 in 10 — or about 200,000 — children will have a place in a Government-supported preschool [14].

On the other hand, ECDA can go one step further to overcome the high costs of accessing subsidies by making childcare automatically free for all low-income families, Ms. Chong suggested. This would allow more children to enter childcare centres without financial worry and alleviate childcare operators from continuous monitoring and paperwork.

For select groups of children, such as those from lower-income families or those with special needs, more targeted interventions would be helpful in addition to the more general schemes available. Tackling the root causes of why some lower-income children have lower attendance rates, or supporting kindergartens in their capacity to take in children with special needs, for example, could prove fruitful.

To this end, existing government programmes such as KidSTART, a holistic programme that supports low-income children and parents up till the age of six with programmes such as home visitation, community-based

	Working Applicant		Non-working Applicant	
	Basic Subsidy (in SGD)	Additional Subsidy (in SGD)	Basic Subsidy (in SGD)	Additional Subsidy (in SGD)
Infant Care (2-18 months)	\$600	Up to \$710	\$150	NA
Child Care (18 months- 2 years)	\$300	Up to \$467	\$150	NA

Figure 10: ECDA financial assistance schemes available for preschool education.

playgroups, and enhanced preschool support, are promising. KidSTART has currently served 1,000 children since it was established in 2016, and plans to serve 5,000 more by 2025 [15].

### **Quality and Access: Putting it All Together**

In an ideal world, quality and accessibility in early childhood education would come hand in hand. However, these goals are not always easily attainable in tandem.

Amidst the downward cost pressures of capping kindergarten fees, tension exists between ensuring preschool affordability and delivering highest-quality education. “My view is that we have to try and disentangle quality and cost, because it is very hard to put a value on quality; good quality education and preschool education is priceless,” Prof. Ang noted. Ideally, ECCE centres would start from the premise of quality education, then build out a feasible level of provision from this baseline.

However, this is easier said than done.

“Good quality education cannot be provided on the cheap — that is the bottom line,” Prof. Ang commented. In order to make ECCE affordable enough to be widely accessible, the government will need to work with preschool providers to prioritise setting quality standards for the ECCE industry, so as to ensure these standards are applied equitably across all preschools over other ‘good-to-have’ markers such as

rigorous certification regimes and academically-intensive pedagogy.

Indeed, in a mixed ECCE system like Singapore’s, where public and private, and for-profit and non-profit operators coexist, some level of economic inequality in childcare opportunities will exist.

In order to balance the diversity of parental choice while ensuring that all ECCE programmes provide children with equal opportunities when they go on to primary school, government support is instrumental. Be it supply-side subsidies, support for parents, or widening the number of spaces in schools, these interventions are the only way to make quality, affordable education viable for all.

Early childhood education is hugely important. Beyond being a vehicle for parents to re-enter the workforce, quality education has lasting impacts on children’s holistic growth and learning potential, and sets the stage for a child’s education in the years to come [16]. Yet, the issues facing the sector are complex.

More government intervention, not less, will be instrumental in the coming years. Government policy will set the tone for the value Singapore places on preschool education, as well as the direction of quality education. While recognising the government’s budget constraints, we hope that due attention will be focused on the ECCE sector as a critical bridge for equality and quality learning.

*Roosevelt@YNC thanks our expert interviewees for their valuable contributions to our series.*

**Dr. Wu Pinhui, Sandra (吴品慧)**, EdD, is currently teaching pre-service teachers and Masters students at the National Institute of Education, an institute of Nanyang Technological University, Singapore. She is the programme leader for the Master of Arts (Educational Management) programme. Prior to joining academia, she had worked in government ministries serving early childhood education and was adjunct lecturer with National Institute of Education International and Singapore University of Social Sciences. She has conducted research in the local pre-school and primary school contexts, and early childhood arts education in Melbourne.

**Prof. Lynn Ang** is Professor of Early Childhood and Vice-Dean for Research at UCL, Institute of Education in London, United Kingdom. Her research interests include early childhood education across cultures particularly in Southeast Asia and the Asia-Pacific region. Prof. Ang is interested in the social, cultural, and policy influences on children's development and early learning in a range of formal and informal contexts. Her research centers on the early years curriculum, international early years policy, and issues of diversity and inequality. Prof. Ang is particularly interested in constructions of early childhood care and education from an international perspective, the impact of research, and the ways in which socially relevant research and advocacy for children and families are translated into policy and practice.

**Ms. Chong Ning Qian** is a former Senior Executive of Research at the Association of Women for Action and Research (AWARE). Her research at AWARE delved into women and children's rights with regards to early childhood education, culminating in news articles and AWARE reports. She has written numerous policy papers and also made policy suggestions to the government. Ms. Chong has also published in newspapers to provide a feminist analysis on numerous issues including burdens women face in the workforce. Her work also extends to single parents, for whom Ms. Chong has heavily advocated for greater accessibility to housing.

## References

1. "Statistics On Singaporean Children Who Have Not Attended Pre-School." Ministry of Social and Family Development, August 15, 2016. <https://www.msf.gov.sg/media-room/Pages/Statistics-on-Singaporean-children-who-have-not-attended-pre-school.aspx>.
2. "Subsidies and Financial Assistance." Early Childhood Development Assistance, November 2020. <https://www.ecda.gov.sg/Pages/Subsidies-and-Financial-Assistance.aspx>.
3. 'Partner Operator Scheme'. Early Childhood Development Assistance, Apr 2021. Accessed 19 July 2021. <https://www.ecda.gov.sg/Parents/Pages/POP.aspx>.

4. Goy, Priscilla. "Quality Is Key for Childcare." *The Straits Times*, January 21, 2017. <https://www.straitstimes.com/singapore/quality-is-key-for-childcare>.
5. "The Big Read: Educators Flag Absentee Rate of Children of Low-Income Families as a Concern." *TODAYonline*, August 1, 2015. <https://www.todayonline.com/singapore/big-read-educators-flag-absentee-rate-children-low-income-families-concern>.
6. Lim, Sirene. "Commentary: Long-Neglected but Now in the Spotlight, Singapore's Pre-School Sector." *CNA*, February 3, 2021. <https://www.channelnewsasia.com/news/commentary/pre-school-enhanced-subsidies-access-moe-kindergartens-11890488>.
7. "Primary 1 English: 8 Things Your Child Must Know before He Starts Primary School." *AsiaOne*, May 21, 2019. <https://www.asiaone.com/singapore/primary-1-english-8-things-your-child-must-know-he-starts-primary-school>.
8. *Vital Voices for Vital Years 2: Perspectives on Early Childhood Development in Singapore*. Singapore: Lien Foundation, 2019.
9. 'Why Are You Not Working', Association of Women for Action and Research, 2019. Accessed 19 July 2021. <https://www.aware.org.sg/wp-content/uploads/Advocacy-report-why-are-you-not-working-updated-2-April-2019.pdf>.
10. Note: For single-parent families, the single parent has to work at least 56 hours a week.
11. 'Subsidies and Financial Assistance'. Early Childhood Development Agency, 2020. Accessed 19 July 2021. <https://www.ecda.gov.sg/Pages/Subsidies-and-Financial-Assistance.aspx>.
12. 'Why Are You Not Working', Association of Women for Action and Research, 2019. Accessed 19 July 2021. <https://www.aware.org.sg/wp-content/uploads/Advocacy-report-why-are-you-not-working-updated-2-April-2019.pdf>.
13. Ibid.
14. "How Is Preschool in Singapore Being Made More Affordable and Accessible?" *Gov.SG*, June 26, 2020. <https://www.gov.sg/article/how-is-preschool-in-singapore-being-made-more-affordable-and-accessible>.
15. 'KidSTART'. Early Childhood Development Agency, March 2021. Accessed 19 July 2021. <https://www.ecda.gov.sg/Parents/Pages/KidSTART.aspx>.
16. Lim, Sirene. "Commentary: Long-Neglected but Now in the Spotlight, Singapore's Pre-School Sector." *CNA*, February 3, 2021. <https://www.channelnewsasia.com/news/commentary/pre-school-enhanced-subsidies-access-moe-kindergartens-11890488>.

## Silver Support Scheme for More

In this policy memo, **Aamir Bana ('24)**, **Kelly Hui ('24)**, and **Matthew Ling ('24)** explain how the elderly in Singapore can be guaranteed basic living standards through a non-discriminatory Silver Support top-up scheme.

---

Many elderly in Singapore face income insecurity in their retirement. To address this, we suggest that the Silver Support (SS) Scheme and Central Provident Fund (CPF) have a minimum combined pay-out amount of S\$1,379 for low-income elderly — the minimum amount for a dignified retirement.

### Background and Analysis

#### Why are the Elderly Still Working?

More and more elderly Singaporeans (aged 65 and above) are continuing to work; the employment rate for elderly citizens almost doubled from 2006 to 2018. As of 2019, about 1 in 4 elderly are working [1]. So why do the elderly spend their golden years employed?

Research suggests that for some, retirement is financially unfeasible. A recent study analysing the monthly financial decisions and considerations of elderly Singaporeans estimated that to pay for monthly basic necessities, elderly who are single require S\$1,379 and elderly couples require S\$2,351. [3]

#### How Does the State Currently Support the Elderly?

The Singapore Government has

initiatives in place to support the elderly financially. The CPF account and the SS Scheme are two ways through which the State intervenes.

The CPF is a compulsory savings scheme and pension plan that requires employees to set aside 20% of their monthly income, and employers to top up an additional 17% of their pay. In addition to being used for healthcare, housing, and other purposes, CPF plays an integral role in helping workers set savings aside for retirement. At the age of 55, one can withdraw from their Retirement Account (with limits on when and how much one can draw).

The SS scheme provides quarterly cash pay-outs of S\$1,200 to S\$3,000 a year for the elderly within the bottom 20% income bracket.

#### Is This Enough?

According to the above study, many elderly recipients still do not receive the S\$1,379 a month required for dignified living, even with their CPF and SS payouts combined.

The study noted that approximately half of the retirees in Singapore do not

receive even the basic CPF annuity of less than S\$800 per month — in 2018, persons aged 65-69 years old were paid \$450 per month on average. Those aged 80-87 received just S\$220 per month on average. [3] Accordingly, in 2011, it was found that CPF and other annuities accounted for just 13% of elderly's income, with public assistance such as ComCare and the SS Scheme accounting for 2%. [3] For a fuller discussion of elderly's various income sources, see Annex A (p.75-7).

One reason for this inadequacy is that the current regime gatekeeps its public assistance schemes very strictly — only the very poor are eligible for state support, excluding elderly who do not technically meet the eligibility criteria for the scheme.

We believe that state support should be a safety net, not a means of last resort. The Government can and should do more.

### **Talking Points**

- By 2050, elderly Singaporeans will account for nearly 1 in 3 Singaporean citizens [4]. With an ageing population, there should be a fundamental safety net available for all retired elderly to lead a dignified life.
- There is a quantifiable income standard for a dignified living. A study titled “What older people need in Singapore: a household budgets study” suggests that single elderly (aged above 65 years) require S\$1,379 a month, while elderly

couples require S\$2,351 a month.

- Work, family, and savings can be the first line of income source, but those who cannot sufficiently rely on these should be able to seek additional support from the Government. Specifically, the CPF (a retirement savings scheme) and the SS Scheme (top-up for the CPF) are insufficient as a long-term income source for the retired elderly.
- Current state schemes emphasise the need to prove poverty due to intense gatekeeping. As a result, welfare is seen as an undignified means of last resort rather than a basic right.

### **The Policy Idea**

First, we propose that recipients of the SS scheme be awarded a top-up from the CPF Board, should their combined payout from both their CPF monthly payouts and the SS scheme be below S\$1,379 per month. This top-up would be calibrated to provide the difference between the S\$1,379 required for dignified living and the total amount of money which one receives through SS scheme and their monthly CPF withdrawal. In light of the government's obligation to support the elderly who have contributed to Singaporean society during their working years, this difference should be funded by the CPF Board.

Secondly, we propose that eligibility for SS should now be determined by age, monthly CPF pay-out, and employment status of the person applying, without

taking into consideration housing type or level of familial support. Furthermore, seniors should be able to appeal for admittance into the scheme.

## **Policy Analysis**

Through these recommendations, we aim to expand upon the SS scheme and CPF, which were set up by the Government in service of low-income seniors.

We believe that increased CPF payouts for the bottom 20% of elderly Singaporeans should be well within the ambit of the CPF's duties, since the Fund was conceived to last Singaporeans throughout their entire retirement. In cases where state support is insufficient, the Government should top-up their payouts using internal funds. Doing so allows the state to acknowledge its responsibility to these low-income older citizens, whilst also allowing them to reap the benefits of not having to expend additional resources on the social, mental and physical health problems which might arise as a result of elderly overwork or having insufficient finances for dignified living.

We also believe that by removing housing type and total income criteria from the SS scheme, we mitigate problems such as (1) low-income elderly having to liquidate their assets or downsize their homes to qualify for the scheme, or (2) low-income elderly being ineligible for the scheme by virtue of their family having resources which the elderly might not necessarily own, have

access to, or can legally lay claim to.

Our policy does have some intrinsic limitations. Our revision ignores the income the retired elderly may receive from their adult children or draw from their personal savings, as the state has no reasonable means by which to unobtrusively gauge these sums. However, the assumption that elderly receive sufficient and regular incomes from their children at all is a flawed one, as is the assumption that all elderly possess sufficient private savings. While there will be some who take advantage of the system's relaxed criterion, we believe that allowing a few free-riders to unfairly benefit is preferable to denying financial support to the elders who need it to attain a dignified retirement.

Under this policy, basic living standards would be a right, not a privilege. Taken together, these revisions would ensure that seniors will not be required to work past retirement age. While this policy does not seek to disincentivise work, it turns employment into a choice. We seek to create a vision of dignified retirement where elderly citizens are not completely beholden to their children, forced to downsize homes, nor coerced into working into their twilight years.

## **Key Facts**

- The payout for the CPF and SS policies combined will add up to at least S\$1,379 a month for the retired elderly by increasing CPF payouts.
- The policy will apply to those who are currently eligible for the SS

scheme, which is targeted at the bottom 20% of low-income elderly. People can appeal to ensure there are no false barriers or excessive gate-keeping.

- Removing the housing type criteria of the current SS scheme will help recipients, who no longer need to prove their poverty by

demonstrating that they do not have valuable assets they can liquidate such as homes, nor will there be a presumption that family members, estranged or otherwise, will be a source of support. Unlike the SS scheme, this policy will simply consider age, CPF contributions, and current employment status.

## **Annex A**

By 2050, Singaporeans aged 65 and above will constitute 33.3% of Singaporean Citizens [4]. With the average lifespan of Singaporeans being 84.8 years [5], that leaves most Singaporeans reliant on one of five main sources of income for the remaining 20 years of their life: money from adult children; wage work; CPF and other annuities; private pension; and public assistance.

It is not enough to consider where the elderly get their money from, but how much money is required to lead a dignified retirement that includes the cost of holidays as well as healthcare.

In the study “What Older People Need in Singapore,” academics interviewed and analysed the financial decisions and considerations made on a monthly basis by 103 elderly Singaporeans. By examining their lived realities, these academics quantified that elderly (above 65 years of age) who are single require S\$1,379 a month, while elderly couples require S\$2,351 a month. Singles aged between 55 to 64 require S\$1,721 [3].

With a specific dollar value, it is clearer to assess whether the sources of income for the retired elderly are sufficient and sustainable. The discussion below highlights briefly, including some of the core concerns with the current welfare and support structure.

### **Reliance on Children**

The Singapore philosophy to welfare has always been “the family as a first line of support” [6]. Thus the state has actively promoted self-reliance before state-reliance. The result has been that “the most common income source (for the retired elderly) is adult children (78% of elderly people reported such income in 2011)” [3]. This places the burden of care squarely on adult children who may not have the means or desire to support their elderly parents. It presupposes every family unit is the same and must be able to financially support the retired elderly. This model can exacerbate inter-generational poverty, since those from a lower economic background struggle to support their own immediate family,

and is demographically unsustainable, as more people have fewer or no children.

### Wage Work: Merits and Demerits

As people age, it is only natural that their capacity to work dwindles. However, due to income insecurity, a significant population of elderly people must continue working. Nearly 21% of the retired elderly had work wages as their primary source of income in their retirement years [3]. The issue is for those who have to work because they cannot make ends meet rather than those who choose to work.

Singapore implemented a Progressive Wage Model, which is in fact a guaranteed minimum wage for three specific industries: cleaning, landscape, and security. There are plans to expand it further. Research has found that the median income of “three most common jobs among older workers range from 0.9 to 1.2 times” the minimum budget that is required to live dignified lives [3]. While there is growing consensus that the mandated minimum income is a great step towards the right direction, it forces elderly individuals who lack sufficient sources of income to sustain their retirement through work. The policy protects those who choose to work, but the question it raises is whether wage work becomes the default expectation for those who are unable to sustain dignified lives. There will always be those who are unable to work due to declining health, disability, or care work. They will then have to rely on the state.

### Barriers to Welfare

Only 2% of retired elderly rely on the state directly as a source of income [3]. This is because policies have been designed with intense gate-keeping, where poverty needs to constantly be proved and verified by a bureaucracy, whose primary aim is to ensure that others (such as estranged children, civic organisations) step in as long-term support structures. The state’s goal is to be a temporary source of income, and thus pegs its payouts to sustained employment and identifies household types as indicators of wealth and prosperity. This strands the retired elderly who are asset-rich but cash-poor. Welfare is not considered a right but a temporary privilege, to be revoked at the slightest sign that those who are barely able to get by are beginning to make ends meet.

### Central Provident Fund (CPF)

In 2013, it was found that only 55% of persons turning 55 had enough savings to fulfil the Basic Retirement Sum [3]. This translates to the fact that “around half of retirees will not receive even the basic annuity of less than S\$800 per month.” Indeed in 2018, the CPF paid an average of S\$450 per month to persons aged 65 to 69 years old, S\$290 to those aged 70 to 79 years old, and just S\$220 to those aged 80 to 87 years old [3]. As a source of income, it is targeted at augmenting alternative sources of income and not serve as the primary source of income. These cash payments are the savings made by Singaporeans throughout their years of employment. For those who earn less as a result of low-income

wage work, their CPF will also correspondingly have lesser savings. The Government has policies to top-up the accounts of those whose CPF is lacking. However, the top-up is only for those who fulfil the most stringent conditions. The CPF is not a guaranteed pension scheme and cannot be fully relied on to ensure a dignified life.

### If not family and work, Government

The Government does not issue handouts easily. Through intense “gate-keeping”, they deter people from seeking direct cash support. The policies that are the most generous require the most intrusive means to prove that you can qualify for it. These include in-person interviews and other administrative roadblocks to deter families in crisis, leaving only the very desperate. ComCare, the most generous scheme, “reaches less than 1% of the elderly population” [3]. Other schemes such as the SS Scheme and Goods and Services Tax voucher can only “add up to around half of the single elderly household budget” [3]. There is a constant contest between “universalism” and “generosity”. The more universal a scheme is, the less generous it’ll be, as seen in the SS Scheme, where the barriers to application are low. The less universal and more restrictive the scheme, the more generous it’ll be, as evidenced by ComCare. These policies are thought of as welfare rather than a basic right to a dignified life, and thus is not guaranteed in the same way education is in Singapore. This explains why only 2% of those who responded to the survey in 2011 listed it as their primary source of income.

### **References**

1. Liew, Maegan. 2019. “Seniors at work: The new norm for ageing in Singapore.” ASEAN Today. February 14, 2019. <https://www.aseantoday.com/2019/02/seniors-at-work-the-new-norm-for-ageing-in-singapore/#:~:text=In%20Singapore%20today%2C%20one%20in,has%20hit%2040%25%20by%202015.>
2. Mokhtar, Faris. 2019. “Retirement and re-employment ages to be raised by 3 years, CPF contribution rates for older workers to go up.” TODAYonline, August 18, 2019. [https://www.todayonline.com/singapore/govt-raise-retirement-age-65-and-re-employment-age-70-2030-cpf-contribution-rates-older.](https://www.todayonline.com/singapore/govt-raise-retirement-age-65-and-re-employment-age-70-2030-cpf-contribution-rates-older)
3. Ng, Kok Hoe, Teo You Yenn and Neo Yu Wei. 2019. “What older people need in Singapore: a household budgets study.” ScholarBank@NUS Repository: 1-70. [https://scholarbank.nus.edu.sg/handle/10635/157643.](https://scholarbank.nus.edu.sg/handle/10635/157643)
4. Statista. 2019. “Forecasted share of the population aged 65 years and above in Singapore in 2019, 2030 and 2050.” Statista, October, 2019. <https://www.statista.com/statistics/713663/singapore-forecast-aging-population/>
5. Khalik, Salma. 2019. “Singaporeans have world’s longest life expectancy at 84.8 years.” The Straits Times, June 20, 2019. [https://www.straitstimes.com/singapore/health/singapore-tops-in-life-expectancy-at-848-years.](https://www.straitstimes.com/singapore/health/singapore-tops-in-life-expectancy-at-848-years)

6. Tan, Chuan Jin. 2015. "Speech By Mr Tan Chuan-Jin At Social Service Partners Conference 2015." <https://www.msf.gov.sg/media-room/Pages/Speech-by-Mr-Tan-Chuan-Speech-by-Mr-Tan-Chuan-Jin-at-Social-Service-Partners-Conference-2015.aspx>.



**ENERGY,  
TECHNOLOGY  
& THE  
ENVIRONMENT**

## Stimulating demand for local produce through a cashback scheme

In this op-ed, **Shaharaj Ahmed ('23)** and **Thomas Bean ('24)** explain why a Local Produce Cashback scheme is needed for Singaporean farmers. This op-ed is an abridged version of the policy memo "The Next Step in Singapore's Food Story: Encouraging Demand for Local Produce" (p.84).

---

When walking into a Fairprice outlet, one might think there is always an abundance of cheap food and shelves stacked with affordable produce. However, COVID-19 highlighted the possibility of an alternate food-insecure Singapore with empty grocery stores [1].

The pandemic tested the rigidity of Singapore's supply chains. While the island-nation overcame supply deficits caused by the pandemic through forging new relationships [2], it is clear that Singapore should diversify food sources to feed its population without disruption. One of the most sustainable long-term options at hand is to bring food production back into the Republic.

This move to bring food production back into the country is more urgent given climate change.

Climate change is expected to harm Singapore's food security by reducing global food production. Projections suggest that arable land will decrease, more frequent and intense weather events such as droughts and storms will lead to greater crop losses, and the

acidification of warming of oceans will negatively impact marine stocks [3]. This may lead to Singapore facing reduced accessibility to food stocks and greater expenses when importing food.

To increase food security, the city-state must increase local food production. To this effect, Government has already introduced several policies, including the recent allocation of another SGD 30 million in 2020 to accelerate local food production [4].

However, simply increasing supply through subsidies and grants does not guarantee a permanent and resilient local food production system. Demand must also be developed alongside supply to make sure that food producers have a sustainable consumer base.

Currently, local producers face the issue of low domestic demand as they do not grow the varieties of vegetables consumed by the majority on a day-to-day basis [5]. Due to Singapore's land scarcity, there is a strong push towards vertical farming and plant factories as the future of local vegetable production

[6]. However, not only is it technically difficult to grow popular local vegetables at competitive rates in these ‘upgraded’ farms, it is also a lot more cost-effective to grow salad greens that can be sold for a premium [7].

Boosting demand will allow local farmers to justify ramping up local production, allowing them to achieve economies of scale and sell local produce at competitive rates.

To create demand, we propose that the Singapore Food Agency (SFA) could work together with the National Environmental Agency (NEA) to stimulate demand from hawkers for local produce via a cashback scheme. Under the scheme, hawkers at NEA-run hawker centres will receive cashbacks on the local produce bought.

Further, the SFA can create a labelling system similar to ones used to label local produce in supermarkets, to signal to consumers which hawkers use local produce. When consumers eat dishes with local produce which generally has greater freshness and quality, they may choose to ‘buy local’ at supermarkets and hawker centres in future, stimulating even greater demand.

Of course, it must be acknowledged that not all hawker centres can participate in the cashback scheme. Most drink stalls would be instant losers of this scheme. Moreover, due to economic, climate, and technological constraints, Singapore may

not produce either the variety or quantity of food that hawkers use since agri-food producers preferentially grow specific varieties of vegetables. Thus, the prospect of an advantaged and disadvantaged group of hawkers emerging is possible.

One possible solution is that the cashback offered on the produce would be so minute in value that relative to hawkers unable to participate, the profit gained by the participating hawkers would be non-too significant. Yet, the value gained by the participating hawkers would be such that it incentivises them to continue to purchase local produce. For example, a S\$0.05 reduction per bundle of bok choy may realise a gain of S\$50 per month for a noodle store, assuming that the store uses up 30 bundles a day.

Another possible method is to ensure that at least all hawkers will have access to one ingredient that is locally produced, thus reducing inaccessibility to this cashback scheme. For example, offering cashback on eggs may allow drink stalls offering egg and toast to hop on the scheme. Another example is for cucumbers to be grown locally such that it allows chicken rice hawkers to participate as well. It is clear to see that the success of this scheme depends on the ability of farms to match the demands of hawkers.

Some may also believe such a scheme is unsustainable as it leaves hawkers and

local farmers dependent on long-term government subsidies to boost local demand and production of local produce. This should not occur — the scheme should be short-term, concluding once it has stimulated sufficient demand to allow local food producers to achieve economies of scale and sell their products at prices competitive with food imports grown using conventional methods.

The cashback scheme can go a long way towards stimulating demand, but it will not be as effective without other supporting policies. Other schemes are required to encourage the production of other vegetable varieties in the long-term. For example, the SFA could assist to encourage contracts between hawkers and food producers would allow local food producers to grow new varieties of vegetables with guaranteed demand,

reducing innovation risk.

Modifying the education curriculum in primary and secondary schools to include Singapore's food story, continued financial support for producers to increase productivity, and the development of government-supported platforms to encourage partnerships between local food producers and F&B companies are other actions that will also help Singapore move closer to its food self-sufficiency goals.

It is clear from the pandemic and the long-term threats of climate change that Singapore must begin to reduce reliance on imported food. A cashback scheme that helps to stimulate demand from hawkers along with other supporting policies will go a long way to helping Singapore do this.

## References

1. Audrey Tan, "Coronavirus: Politicians, supermarkets urge calm amid panic-buying of groceries", *The Straits Times*, February 10 2020, accessed 30 December 2020, <https://www.straitstimes.com/singapore/health/coronavirus-fairprice-chief-urges-calm-amid-panic-buying-of-groceries-singapore>
2. Lay, Belmont, "S'pore welcomes first shipment of eggs from Poland: Trade minister Chan Chun Sing." *Mothership*, June 05 2020, accessed 30 December 2020, <https://mothership.sg/2020/06/fresh-eggs-poland-singapore/>
3. Mbow et. al., *Food Security. In: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*, (Intergovernmental Panel on Climate Change (IPCC), 2019), <https://www.ipcc.ch/srccl/chapter/chapter-5/>
4. Ministry of Environment and Water Resources (MEWR), "30x30 Express: Ramping Up Local Production to Enhance Singapore's Food Security", April 8 2020, accessed 30 December 2020, <https://www.mse.gov.sg/resource-room/category/2020-04-08-press-release-on-30-x-30-express/>

5. Cara Wong, “Demand for local produce must complement supply in local food production: Amy Khor”, The Straits Times, July 18 2020, accessed 30 December 2020, <https://www.straitstimes.com/singapore/environment/demand-for-local-produce-must-complement-supply-in-local-food-production-amy>
6. Agri-Food and Veterinary Authority of Singapore (AVA), “Future of farming: Singapore’s agriculture sector needs to embrace technologies or innovations that can help to achieve quantum leaps in productivity.”, Food for Thought, January 1 2017, accessed 30 December 2020, <https://www.sfa.gov.sg/food-for-thought/article/detail/future-of-farming>
7. Mateusz Piechowiak, “Can Vertical Farming Grow Beyond Herbs and Leafy Greens?”, Vertical Farming Planet, n.d, <http://verticalfarmingplanet.com/can-vertical-farming-grow-beyond-herbs-and-leafy-greens/>

## The Next Step in Singapore's Food Story: Encouraging Demand for Local Produce

In this policy memo, **Bryan Teo Jun Kai ('24)**, **Lee Shao Ming ('24)**, **Shaharaj Ahmed ('23)**, and **Thomas Bean ('24)** dissect how current government policies are insufficient in dealing with domestic food security in Singapore due to the lack of emphasis on demand-side problems, and propose the implementation of a local produce cashback scheme to subsidise hawkers' purchases of local produces.

---

To bolster Singapore's food security, the Singapore Food Agency (SFA) should address demand-side deficiencies by launching a local produce cashback scheme that subsidises the monthly rent of hawkers when they purchase local produce for use.

### **Background and Analysis**

Despite being ranked the most food secure country in the world, Singapore imports 90% of its domestic food consumption. [1] As a result, supply chain disruptions present several risks to Singapore's food security. [2] Most recently, the COVID-19 pandemic triggered fears of instability in food supplies, driving panic buying at supermarkets and hoarding behaviour amongst Singaporeans. [3]

The obvious solution would be for Singapore to begin producing food locally and achieve some degree of self-sufficiency. Amidst growing realisation that food security is an existential issue to contend with, the SFA unveiled their

'30 by 30 vision' in early 2020, which aims to locally produce 30% of the country's nutritional needs by 2030. [4] To support producers looking to use technology to grow more with less, the SFA has enhanced the Agriculture Productivity Fund [5] and pushed out the 30x30 Express grant [6]. Additionally, the SFA has been working with the Housing and Development Board (HDB) to identify non-traditional alternative farming spaces and compensate for Singapore's low available land mass. [7] These recently introduced policies reflect the government's interest in moving Singapore towards becoming a more self-reliant and food-secure society.

However, the lack of popular demand for local produce presents an issue. Without sufficient consumers 'buying local', there could be a surplus in produce and subsequently, more food wastage. While 94% of respondents in a survey were willing to buy local produce, only 65% of them could identify local produce when shopping for their groceries [8],

suggesting that intentions to consume local produce might not translate into actual consumption. Consumers do not tend to actively source for locally produced food, especially if it is not clearly certified as ‘locally-grown’ or ‘organic’ and placed at the eye-level in supermarket shelves. [9]

The issue of low demand for local produce can also be attributed to local producers not growing the right kinds of vegetables that are consumed by the majority of the population on a day-to-day basis. Due to Singapore’s land scarcity, there is a great push towards vertical farming and plant factories as the future of local vegetable production. However, not only is it technically difficult to grow popular local vegetables at competitive rates in these ‘upgraded’ farms, it is also a lot more cost-effective to grow salad greens that can be sold for a premium. Overall, it is of utmost importance that we “match demand for local produce with supply” instead of over-producing vegetables that not enough people like to eat. [8]

Ultimately, the government has focused heavily on the upstream nature of food security issues, providing farmers with the appropriate space, technology, and funding. If local food producers are to attain critical mass and break-even without further government support, it is crucial that the problem of low local demand is tackled. After all, supply-side efforts will not be effective if there are no consumers to drive the sustainable growth of this industry.

## Key Facts

- Singapore currently imports over 90% of its domestic food consumption, but is seeking to meet 30% of local needs by 2030 through domestic production.
- According to a food perception survey conducted by the SFA and the Ministry of Sustainability and Environment on 1,500 people in 2020, an overwhelming majority of Singaporeans (94%) are *willing* to buy locally-produced food.
- However, consumers do not tend to actively source for locally produced food, especially if it is not clearly certified as ‘locally-grown’ or ‘organic’ and placed at the eye-level in supermarket shelves.

## Talking Points

The lack of demand for local produce undermines the capability of local farmers to sell their products and attain critical mass. This adversely impacts the nation’s ability to achieve food security and their 30-by-30 target.

Short-term subsidies in the form of cashbacks to hawkers aim to increase local demand for local produce and may help local producers achieve economies of scale sooner. This reduces the price of local produce to competitive levels, stimulating further demand and bringing Singapore closer to its food security goals. This local produce cashback (LPC) scheme also boosts public awareness by bringing delicious local produce to domestic consumers, hence

directly tackling the issue of low demand.

### **The Policy Idea**

We propose to boost demand for local produce by introducing a LPC scheme in National Environmental Agency (NEA) hawker centres. Under this scheme, an incremental cashback on monthly rent to hawkers will be provided for every added quantity of local produce purchased. The pilot trial of the LPC scheme in the five most popular hawker centres could be funded by the SFA.

The LPC scheme aims to integrate local production into the current food and beverages (F&B) industry ecosystem. It builds on the popularity of hawker centres to expose all Singaporeans to the benefits of consuming local produce. The recent addition of hawker centres to the United Nations Educational, Scientific and Cultural Organisation (UNESCO) Intangible Cultural Heritage list [10] presents a window of opportunity for the effective introduction of this policy. By extensively marketing the fact that domestic hawkers now serve local produce in their cuisine, consumers will perceive local farms as a source of national pride, thus raising demand for their products.

### **Policy Analysis**

Apart from generating direct demand for local produce, the LPC scheme presents an opportunity to boost public awareness of Singapore's local food ecosystem.

Just as how home-grown produce at supermarkets and retailers are labelled [11], hawker centres that use local produce should also be labelled as such (including the name of the producer), allowing consumers to know where exactly their food was sourced from. If consumers enjoyed their experience 'eating local', they might choose to 'buy local' in the future as well. Hence, with a successful roll-out, the LPC scheme would be able to effectively tackle the issue of low demand for local produce by subsidising demand in wholesale buyers like hawkers while increasing public awareness and generating further demand from individual consumers.

Not all hawker centres will find the LPC scheme suitable for their needs, as Singapore does not produce either the mass variety or quantity of food required at present. Agri-food producers preferentially grow specific varieties of vegetables due to economic and technological constraints, and may be unable to meet the hawkers' needs entirely. To ensure the fairness of the scheme, the cashback offered should be balanced such that it offers a net benefit to hawkers who choose to opt-in, while not presenting any financial disadvantage to hawkers who are ineligible for the scheme or choose to opt-out. Supporting policies are required to encourage the production of other vegetable varieties in the long-term: contracts between hawkers and food producers would allow local food producers to grow new varieties of vegetables with guaranteed demand,

reducing innovation risk.

The government has already injected huge amounts of funding into the local agricultural industry, leaving some concerned that producers might become overly dependent on government subsidies. Unlike direct subsidies to farmers, the LPC scheme is designed to be a short-term measure to incentivise hawkers to adopt local produce, so as to avoid leaving either farmers or hawkers dependent on the continuation of this subsidy. Once the scheme expands, local producers will have sufficient demand to achieve economies of scale. Economies of scale for local producers will allow them to sell crops that are grown in high-tech facilities at competitive prices relative to imported food grown via conventional farming methods. When Singapore achieves enough local demand for local produce and the prices of local produce can compete with imported food, the government can roll back the LPC scheme without the concern that local hawkers cannot afford local produce.

### **Implementation Plan**

The NEA will be in charge of implementing the scheme in their hawker centres, issuing the cashbacks

while they collect rent. The SFA will finance the scheme, on top of providing all necessary support: promoting the scheme to hawkers, matching hawkers with appropriate local food producers, assisting hawkers with labelling, and marketing local produce to consumers.

During its pilot trial at the five hawker centres, the agencies should aim to get 50% of hawkers operating in the participating centres on board with the scheme. Following which, the SFA can review its success, taking into account feedback from producers, hawkers, and consumers, to decide whether to (i) expand the scheme nationwide, (ii) tweak the amount of cashback, or (iii) slowly wean producers and hawkers off the scheme.

Other supporting policies should be adopted, modified, and/or kept with the LPC scheme to further encourage demand for local produce. This includes modifying the education curriculum in primary and secondary schools to include Singapore's food story, continuing financial support for local producers to increase productivity, and developing government-supported platforms to encourage partnerships between local food producers and F&B companies.

### **References**

1. Montescarlos, Jose Ma. Luis, and Paul P.S. Teng. 2019. Supporting Singapore's "30-by-30" Food Security Topic: Finding the "Sweet Spot" in Property Taxation. Policy Report, Singapore: Nanyang Technological University.

2. Siau, Ming En. 'The Big Read: Far from people's minds, but food security a looming issue'. TODAYonline, 26 May 2017. <https://www.todayonline.com/singapore/big-read-far-peoples-minds-food-security-looming-issue>.
3. Low, Youjin, and Alif Chandra. 'The Big Read: Panic Buying Grabbed the Headlines, but a Quiet Resilience Is Seeing Singaporeans through COVID-19 Outbreak'. CNA, 17 February 2020. <https://www.channelnewsasia.com/news/singapore/coronavirus-covid-19-panic-buying-singapore-dorscon-orange-12439480>.
4. Ministry of Sustainability and the Environment. 2020. *Press Releases*. April 9. Accessed October 1, 2020. <https://www.mse.gov.sg/news/30x30-express-ramping-up-local-production-to-enhance-singapores-food-security>.
5. 'Agriculture Productivity Fund'. Accessed 22 December 2020. <https://www.sfa.gov.sg/food-farming/funding-schemes/agriculture-productivity-food>.
6. Liu, Vanessa. 'Coronavirus: New \$30m Grant Launched to Speed up Local Production of Eggs, Vegetables and Fish'. The Straits Times, 8 April 2020. <https://www.straitstimes.com/singapore/coronavirus-new-30m-grant-launched-to-speed-up-local-production-of-eggs-vegetables-and>.
7. Singapore Food Agency. 2020. "Urban Farming." *Singapore Food Agency Website*. September 30. Accessed October 1, 2020. <https://www.sfa.gov.sg/docs/default-source/default-document-library/joint-sfa-hdb-media-release—award-of-tender-for-the-rental-of-9-hdb-mscp-rooftop-sites-for-urban-farming2aab92d9a16d420882427248886745c2.pdf>
8. Wong, Cara. 'Demand for local produce must complement supply in local food production: Amy Khor'. The Straits Times, 18 July 2020. <https://www.straitstimes.com/singapore/environment/demand-for-local-produce-must-complement-supply-in-local-food-production-amy>
9. Montescarlos, Jose Ma. Luis, Stella Liu, and Paul P.S. Teng. 2018. *Scaling Up Commercial Urban Agriculture to Meet Food Demand in an Assessment of the Viability of Leafy Vegetable Production using Plant Factories with Artificial Lighting in a 2017 Land Tender (First Tranche)*. Policy Report, Singapore: Nanyang Technological University.
10. Chew, Hui Min. 'Singapore Hawker Culture Listed as UNESCO Intangible Cultural Heritage'. CNA, 17 December 2020. <https://www.channelnewsasia.com/news/singapore/singapore-hawker-culture-unesco-intangible-cultural-heritage-13784522>.
11. Liu, Vanessa. 'Bright Red Label to Help Shoppers Identify Local Produce'. The New Paper, 7 August 2020. <https://www.tnp.sg/news/singapore/bright-red-label-help-shoppers-identify-local-produce>.

## Singaporean Farmers' Markets: Building a culture of "buying local"

In this op-ed, **Bryan Teo Jun Kai ('24)** and **Lee Shao Ming ('24)** explore the possibility of bringing farmers' markets closer to Singaporeans to boost demand for local produce and accelerate Singapore's progress towards the Singapore Food Agency's goal to produce 30% of our food needs by 2030.

---

Farmers' Markets — sprawling spaces with rows of stalls filled with painstakingly grown produce — serve as a dedicated space for local producers to connect with the community and sell their home-grown produce. However, something special grows amidst the bargaining: an appreciation of the work farmers put into their produce, and a unique culture of "buying local".

In Singapore, Farmers' Markets are not yet our preferred shopping option. Most Singaporeans presently get their groceries from giant supermarket chains and wet markets, neither of which exclusively cater to locally-grown produce. Consequently, there remains a lack of awareness of and demand for locally-grown produce among Singaporean consumers.

The Farmers' Markets that do exist, such as the Loewen's Farmers' Market near Dempsey [1], are located far away from denser residential areas and only accessible by private transportation. These are not places most Singaporeans will go to, which means that farmers

there suffer from less demand for their home-grown food. A "buy local" culture has yet to be incorporated into our lives.

This poses a challenge to the Singapore Food Agency's (SFA) 30 by 30 goal [2], which aims for Singapore to produce 30% of our food needs by 2030. With 90% of Singapore's food dependent on imports, externalities can easily disrupt essential food supply chains, throwing us into immediate instability. Worries around food security, including early panic buying [3] caused by news of Covid-19 lockdowns in early-2020, are never too far away from us.

In light of these concerns, the SFA has poured significant resources into enhancing local production of food and maintaining affordable prices for consumers [4]. On the supply side, we appear to be making significant progress.

However, we must not forget about the demand side of things. Locally-produced food needs strong and stable demand from Singaporean consumers to be a mainstay. To cultivate this long-term

demand, the current mechanism through which local farmers sell their produce is insufficient. Because of a lack of accessibility to and awareness about local produce, local farmers struggle to see sustainable demand for their goods. If this persists, the resources and hard work invested into them may end up like that of a single hand trying to clap: for naught.

We need to bring our Farmers' Markets to more central locations, so that they become more accessible to a wider consumer base in Singapore, where they can then play a strong role in developing demand for local produce. We suggest that Farmers' Markets instead leverage upon the convenience of existing supermarket chains and wet markets, while incorporating the benefits of traditional Farmers' Markets: home-grown produce and a connection between farmers and consumers. This would be a hybridised version of a Farmers' Market, uniquely adapted to our urban setting.

This way, we maintain the convenience that Singaporeans are used to, but add the benefits that Farmers' Markets bring to their communities. A 2019 study, for example, concluded that Farmers' Markets allow producers to be in direct contact with consumers, adding to the number of socially and environmentally sustainable food systems [5]. Another earlier article [6] shows how Farmers' Markets in Vancouver Island promote local food security, buffering its residents against disruptions of long term

food supply. All these are in line with Singapore's own food sustainability goals.

### **Dedicated spaces for local farmers in supermarkets and wet markets**

First, to expose Singaporeans to local produce, the SFA should collaborate with popular supermarkets and wet markets to dedicate a section of space just for local produce. This would enable local farmers and their produce to connect to Singaporeans directly without radically altering the way people already get their food. More importantly, these dedicated spaces would familiarise local consumers with local produce and brands, and emphasise the origins of these produce more prominently than current miniscule labels do [7]. This would help cultivate an instinct for buying local, and encourage customers to pay attention to the origin of their produce over time.

Shoppers should not be faced with faceless shelves of local produce. Local farmers themselves can be present in the supermarkets and wet markets, building ties with their customers. Such socialisation would allow farmers to build brand awareness and customer loyalty to their produce, securing a critical mass of local demand over time.

### **Bringing Farmers' Markets into the residential spaces**

Furthermore, another way to introduce

Farmers' Markets into Singaporean culture would be to situate the markets amid public housing. The issue of under-utilised spaces such as car parks and void decks have been recognised by the government, who have called on the public to provide creative ways to utilise the space for community development [8].

These spaces are well-suited for hosting our version of Farmers' Markets. With inter-government agency collaborations between the Housing and Development Board (HDB) and the SFA, we could have farmers' markets featuring local farmers selling their produce and interacting with consumers in the void decks and other open spaces near the HDB blocks.

Here, it is worth considering the theory of third places. The theory of third places is defined by sociologist Ray Oldenburg in his book *The Great Good Place* as "anchors of community life (which) facilitate and foster broader, more creative interaction" [9]. Put simply, it is a welcoming ground for social interactions.

The incorporation of Farmers' Markets into the under-utilised public spaces

would achieve this additional goal of carving out third places. Due to the proximity of these places to public housing, the practical need for people to purchase produce, and the novelty of our proposed solution, we expect that these under-utilised places will transform into bustling hotspots by facilitating social interactions. Hence, a culture of buying local produce via Farmers' Markets can be successfully cultivated across all these public spaces.

As a small nation, Singapore continuously faces the challenges of space and manpower. Our proposed solutions, which uses existing infrastructure to carve out dedicated sections in supermarkets and wet markets for local produce, as well as situating Farmers' Markets in under-utilised public housing spaces, address these challenges directly and conveniently.

With their long-term benefit of enhancing local food security, supporting local producers, and bringing our communities closer together, it is clear that the development of Farmers' Markets in Singapore is the way forward.

## References

1. "Farmer's Markets At Loewen Gardens." *The New Age Parents*. The New Age Parents, 2018. <https://thenewageparents.com/farmers-markets-at-loewen-gardens/>.
2. Ai-Lien, Chang. "Singapore Sets 30% Goal for Home-Grown Food by 2030." *The Straits Times*, March 8, 2019. <https://www.straitstimes.com/singapore/spore-sets-30-goal-for-home-grown-food-by-2030>.

3. “Panic Buying Hits Singapore after Virus Alert Raised.” *Business Times*, February 8, 2020. <https://www.businesstimes.com.sg/government-economy/panic-buying-hits-singapore-after-virus-alert-raised>.
4. Singapore Food Agency. “Our Singapore Food Story.” SFA, 2020. <https://www.sfa.gov.sg/food-farming/sgfoodstory/supporting-local-produce>.
5. Figueroa-Rodríguez, Katia, María Álvarez-Ávila, Fabiola Hernández Castillo, Rita Schwentesius Rindermann, and Benjamín Figueroa-Sandoval. “Farmers’ Market Actors, Dynamics, and Attributes: A Bibliometric Study.” *Sustainability* 11, no. 3 (2019): 745. <https://doi.org/10.3390/su11030745>.
6. Alexandra, Link, and Chris, Link “Farmers’ Markets and Local Food Systems.” CRC Research, 2007. Accessed July 25, 2021. <https://www.crcresearch.org/crc-case-studies/farmers-markets-and-local-food-systems>.
7. Singapore Food Agency. “Our Singapore Food Story.” SFA, 2020. <https://www.sfa.gov.sg/food-farming/sgfoodstory/supporting-local-produce>.
8. Teo, Gwyneth. “Singapore Urban Design Festival Organisers Look at under-Utilised Spaces for Events: Video.” CNA, November 7, 2020. <https://www.channelnewsasia.com/news/singapore/singapore-urban-design-festival-organisers-look-at-under-11353164>.
9. Oldenburg, Ray. *The Great Good Place: Cafés, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community*. Cambridge, MA: Da Capo Press, 1999.
10. Lim, Natalie. “5 Farmers’ Markets In Singapore To Switch Up Your Otherwise Mundane Grocery Runs.” *TheSmartLocal*, January 9, 2020. <https://thesmartlocal.com/read/farmers-markets/>.
11. Dodds, Rachel, Mark Holmes, Vichukan Arunsopha, Nicole Chin, Trang Le, Samantha Maung, and Mimi Shum. “Consumer Choice and Farmers’ Markets.” *Journal of Agricultural and Environmental Ethics* 27, no. 3 (2013): 397–416. <https://doi.org/10.1007/s10806-013-9469-4>.

R