

Building a Resilient Workforce: Ensuring Opportunities for Lower-Income Workers and Their Families

Report on the Workfare Income Supplement Reimagined

Commissioned by LEAP201 for the Singapore Rebalanced (Phase Two) Project

Irene Y. H. Ng, Ee Cheng Ong, Zhi Han Tan January 2023

Acknowledgements

This research is commissioned and funded by Leap Philanthropy Ltd. (Leap201), under the Singapore Rebalanced (Phase Two) Project. We thank Michael Lien, Damien Huang, and Shu Min Cheong from the LEAP201 team for feedback, as well as Mohamad Rafi Kamsani Chia and David Ong Kai for research assistance. We also thank the Ministry of Finance, Ministry of Manpower, Ministry of Social and Family Development, National Trades Union Congress, Singapore Business Federation, Mr Christopher Gee, Associate Professor Terence Ho, Professor Jessica Pan, Mr Suan Teck Kin, and Associate Professor Walter Theseira for comments. The views and any errors in the report, however, are entirely ours.

Minor amendments were made to this report to incorporate feedback from participants at the WIS Reimagined Roundtable Discussion on 20 April 2023.

Contents

E	xecut	ive Summary	7		
1	Intro	oduction	10		
2	The	Broader Landscape of Work Incentive and Social Protection Schemes	13		
	2A	Workfare Income Supplement (WIS) Scheme	13		
	2B	Workfare Skills Support (WSS) Scheme	16		
	2C	Progressive Wage Model (PWM)	16		
	2D	Progressive Wage Credit Scheme (PWCS)	18		
	2E	Silver Support (SS) Scheme	18		
	2F	ComCare Short-to-Medium-Term Assistance (SMTA) and Related Social Assistance	19		
	2G	One-Off Cash Assistance Payouts	22		
3	Reimagining WIS to Address the Gaps in Work Incentive and Social Protection Schemes 24				
	3A	Reimagining a Household-Based WIS	24		
	3B	Strengthening Work Incentives	27		
	3C	Assessing WIS Eligibility Based on Basic Salary	28		
	3D	Phasing Out the Age Differentiation of WIS Payouts	28		
	3E	Indexing WIS to Inflation	29		
	3F	Increasing the Proportion of WIS Allocated to Cash	30		
4	Desi	gn of a Household-Based WIS	32		
	4A	Household with Two Adults, One Teenager, and One Child (Two Adults Working)	32		
	4B	Household with Two Adults, One Teenager, and One Child (One Adult Working)	35		
	4C	Variation of WIS by Household Configuration	37		
	4D	Implementation of a Household-Based WIS	41		
5	Pote	ential Impact of the Proposed WIS	43		
6	Con	clusion	44		
A	ppen	dix A: The Evolution of WIS	45		
A	ppen	dix B: The EITC Literature on the Impact on Children	47		
A	Appendix C: Illustrative Examples of How the Proposed WIS Impacts Households				
	Case	I: Lee Family (Two Adults and Two Children)	49		
	Case	II: Pereira Family (One Adult and Three Children)	50		

Case III: Mehta Family (Two Adults, One Senior, and Two Teenagers)	. 51
Case IV: Ali Family (Two Adults)	. 52

List of Figures

Figure 1: Distribution of Beneficiaries in the Current Individual-Based WIS Compared to the
Proposed Household-Based WIS
Figure 2: Nominal Value vs. Real Value of Monthly WIS Payout for a Worker Between the Ages of 35 and 44 Earning \$1,000 a Month (2007–2022)29
Figure 3: Proposed and Current WIS Schedules for Household with Two Adults, One Teenager, and One Child (Two Adults Working)
Figure 4: Proposed and Current WIS Schedules for Household with Two Adults, One Teenager, and One Child (One Adult Working)
Figure 5: Proposed and Current WIS Schedules for Household with Two Adults, One Teenager, One Child, and One Senior (Two Adults Working)
Figure 6: Proposed and Current WIS Schedules for Household with Two Adults, One Teenager, One Child, and One Senior (Two Adults and One Senior Working)
Figure 7: Proposed and Current WIS Schedules for Household with Two Adults (Both Working)
Figure 8: Proposed and Current WIS Schedules for Household with Two Adults and Five Children of Whom Two are 14 and Above and Three are Below 1440

List of Tables

Table 1: Applying OECD-Modified Equivalence Scales to Different Household Compositions	37
Table 2: WIS Payments for Children Below 21	42

Executive Summary

The Workfare Income Supplement (WIS) was introduced in 2007 to incentivise regular work and support the expenditure needs and retirement savings of older lower-wage workers and persons with disabilities. WIS is part of a larger landscape of work incentive and social protection schemes. This landscape includes the Progressive Wage Model (PWM), under which employers must meet the wage requirements of their respective sectors; the Silver Support Scheme (SSS), which gives automatic cash support to seniors with low lifetime earnings; and the ComCare Short-to-Medium Term Assistance (SMTA), a means-tested programme supporting low-income households.

However, the range of schemes may be inadequate in improving living standards for individuals who fall outside the eligibility criteria. First, PWM is limited to specific sectors and occupations even after its expansion. Second, by virtue of being a means-tested scheme, ComCare SMTA is susceptible to gaps in assistance and welfare traps – disincentives to exit the programme. According to its eligibility criteria, it reaches approximately the bottom five percent of households. However, also needing support are households in the 5th to 25th percentiles, especially those with young children, elderly parents or grandparents, and disabled family members. Third, while the SSS gives automatic cash support to seniors with low lifetime earnings, there is no equivalent automatic programme for low-income households with dependents.

Over the past 15 years, WIS has evolved. Meanwhile, the external environment has become more challenging due to persistent high inflation and an impending global recession, combined with ongoing disruptions caused by automation and climate change. Hence, it may be time to reimagine a new WIS that better protects vulnerable households. We envisage six ways in which the impact of WIS can be augmented.

First, we reimagine a WIS that is expanded to uplift not just the individual worker, but also their family. While incentivising work is stated as the primary aim of WIS, enhancements to WIS — including increasing payouts, increasing the frequency of payouts, and adjusting the cash-to-CPF ratio — imply that WIS also aims to support low-income workers. Changes to the eligibility criteria to include income and wealth limits of spouses and family members have also made WIS more focused on low-income households. Yet, because WIS is disbursed at the individual level, it lacks targeting as a form of financial support while being vulnerable to leakage to lower-wage workers from wealthier households.

Thus, given the modifications to WIS and greater data sharing across ministries, shifting from an individual-based WIS to a household-based WIS is incremental rather than reformative. In addition, the increase in maximum payouts has made the phase-out slopes of WIS steeper, such that even while WIS encourages work on the extensive margin (i.e., whether one chooses to work), it discourages work on the intensive margin (i.e., how much one chooses to work). WIS can now be redesigned for a steeper phase-in slope (i.e., for every additional dollar earned, the WIS payout increases) and a flatter phase-out slope (i.e., for every additional dollar earned, the overall income increases even though the WIS payout is gradually reduced).

Second, we recommend redesigning WIS with a higher phase-in rate and a lower phase-out rate for greater work incentive compatibility. Changing to a household-based WIS is an opportunity to do so.

Third, to reduce work disincentives, we suggest assessing eligibility for WIS on basic salary, excluding overtime pay and bonuses.

Fourth, we recommend phasing out the age differentiation of WIS payouts. As the pre-independence birth cohorts age out of the labour force, the share of less-educated workers among residents age 55 and above decreases, rendering the age differentiation of WIS payouts less compelling. Going forward, strongly encouraging the low-income elderly to work while setting a legal retirement age makes for inconsistent social policy.

Fifth, we suggest indexing WIS to inflation. Alternatively, we propose reviewing WIS every year instead of every three years. Otherwise, the real value of WIS payouts shrinks over time. This is especially pertinent during periods of high inflation, such as the one we are currently experiencing.

Sixth, we recommend increasing the proportion of WIS allocated to cash by inverting the cash to CPF ratio from 40:60 to 60:40. The larger cash component increases the disposable income of WIS recipients, better meeting their pressing expenditure needs and reinforcing work incentives.

We provide illustrative schedules of WIS payouts for four household configurations as examples of how a household-based WIS can better meet the needs of low-income households while maintaining work incentives. Steep phase-in slopes create strong work incentives. The schedules plateau at household income levels ranging from an estimated absolute poverty threshold to the PWM minimum wage level, which will boost the likelihood of households escaping poverty. Thereafter, the schedules taper to zero when household income levels reach an estimated relative poverty level (half of median household income). The phase-out slopes are fairly flat in order to decrease disincentives to work and to increase incentives to upgrade along the PWM ladders. The income cap could be pegged to half of median household income to keep the phase-out slope flat and inclusive of households in relative poverty.

While the current individual-based WIS varies by personal income, the household-based WIS varies by household composition and household income. We adjust the household-based schedules for different household sizes and compositions using the OECD-modified equivalence scales. Greater weight is assigned to elderly and disabled household members. Compared with the current individual-based WIS, the household-based WIS gives higher payouts to households with more dependents and fewer working members. Households with elderly working members, in particular, receive much lower payouts.

The proposed household-based WIS therefore better caters to the needs of households with dependents by enabling them to invest in their future and their children's future. The household-based WIS accounts for the value of unpaid household work, which is estimated to be around 15 percent of GDP, using the replacement cost approach. Furthermore, a household-based WIS will alleviate the time poverty experienced by low-income households and dampen the over-incentivisation of the elderly to work. The possible work disincentive for the second or subsequent household member would apply only at very low earnings levels where the individual is working only a few hours a month.

A household-based WIS would nevertheless require all income earners to complete an annual filing, with high-income earners paying taxes, and low-income earners receiving WIS as a form of negative tax. Requiring all income earners to file will partially mitigate the issue of self-employed individuals not contributing to their CPF.

The net impact of the proposed household-based WIS relative to the current individual-based WIS is potentially positive. We estimate that this change will benefit households in the 5th to 25th percentiles of the household income distribution, with the bottom five percent served by ComCare. While the household-based WIS could incur greater costs in terms of resources for annual filing, there could be cost savings if higher-earning ComCare-eligible households are incentivised by WIS to increase their hours of work instead of relying on ComCare. Quantum wise, while some households will receive less, others will receive more. Moreover, the investments made by workers for their future and their children's future may pay dividends in the years to come. Overall, the cost effectiveness of the proposed WIS is promising.

Workfare Income Supplement Reimagined

1 Introduction

- 1.1 The Workfare Income Supplement (WIS) scheme was introduced in 2007 to incentivise "regular work and individual effort by providing cash and [Central Provident Fund (CPF)] payouts to help with expenditure needs and retirement savings of older lower-wage workers and persons with disabilities who work." The key outcomes of interest are not only monthly wages, but also labour force participation (the extensive margin) and the number of months worked (the intensive margin).²
- 1.2 Singapore's Ministry of Trade and Industry (MTI) reported in 2014 that WIS improved the employment rate of WIS-eligible Singaporeans by 2.7 to 7.3 percentage points between 2007 and 2010.³ However, Freire (2018), using data from 2000 to 2011, concluded that WIS increased the labour force participation rate by only 0.6 to 5.5 percentage points among women.⁴ Both studies found a larger impact among older workers.
- 1.3 Almost a million workers have benefitted from over \$8.6 billion in payouts from WIS over the past 15 years. ⁵ Between 2016 and 2021, real income at the 20th percentile of full-time employed residents grew at 2.7 percent per year, which is 0.6 percentage points higher than that at the median. ⁶ However, in absolute terms, the real income gap between the 20th percentile and the median has widened.
- 1.4 While WIS has supplemented the living and retirement needs of lower-income workers, the external environment has become more challenging for everyone, particularly those at the bottom of the income distribution. Record-high inflation and an impending recession, combined with the ongoing disruptions caused by automation and climate change, prompt us to reimagine WIS. We evaluate the current design of WIS (i.e., the 2020–2022 WIS eligibility criteria and schedules), and we envisage six ways in which the impact of WIS can be augmented.

¹ Ministry of Manpower, "Workfare" (July 2022), retrieved November 26, 2022, from https://www.mom.gov.sg/employment-practices/schemes-for-employers-and-employees/workfare

² Ministry of Trade and Industry, "The impact of the Workfare Income Supplement on individuals' labour outcomes," *Economic Survey of Singapore* (2014 Second Quarter), 30, retrieved November 26, 2022, from https://www.mti.gov.sg/-/media/MTI/Legislation/Public-Consultations/2014/The-Impact-Of-The-Workfare-Income-Supplement-Scheme-on-Individuals-Labour-Outcomes/fa_2q14.pdf

³ Ibid.

⁴ Tiago Freire, "Wage subsidies and the labor supply of older people: Evidence from Singapore's Workfare Income Supplement Scheme," *Singapore Economic Review* 93, no. 4 (2018): 1101–1139. http://dx.doi.org/10.1142/S0217590815500964

⁵ Zaqy Muhamad, "Committee of Supply – Head S (Ministry of Manpower)," *Hansard* 95, no. 55 (March 7, 2022), retrieved November 26, 2022, from https://sprs.parl.gov.sg/search/#/sprs3topic?reportid=budget-1871
⁶ Ibid.

- 1.5 First, we reimagine a WIS that is expanded to uplift not just the individual worker but also their family, along the lines of the Earned Income Tax Credit (EITC) in the U.S.; this can be achieved by adjusting the WIS quantum according to the number of household members.
- 1.6 Currently, WIS is disbursed at the individual level. However, an individual worker is often responsible not just for themselves but also for dependents such as elderly parents and young children. Restructuring WIS to the household level acknowledges the varying needs of households. While the needs of the household are considered in schemes such as the ComCare Short-to-Medium-Term Assistance (SMTA), most schemes are not automatically disbursed; rather, they require extensive applications, interviews, and assessments. Furthermore, the automatic disbursement of WIS is a stronger work incentive than the current ComCare SMTA, which requires periodic assessments.
- 1.7 While the Silver Support (SS) Scheme caters to lower-income senior citizens, there is no equivalent scheme with an automatic cash supplement for lower-income households with children. We propose expanding the focus of WIS to needy families with dependents. Increasing the amount of financial support will enable parents to invest more in their children in terms of better nutrition, more enrichment activities or material, and more time spent with their children. Indeed, researchers have documented the positive impacts of the EITC on children's educational and employment outcomes.⁸

1.8 Second, we recommend redesigning WIS to strengthen work incentives.

1.9 Currently, while WIS has been found to encourage entry into work, it has disincentivising effects on additional work hours. Redesigning WIS with a higher phase-in rate and a lower phase-out rate can strengthen the incentive to enter the labour force and weaken the disincentive to work more hours.

1.10 Third, we recommend assessing eligibility on basic salary.

1.11 Currently, all salary, including overtime pay and bonuses, is included in the eligibility assessment. This could disincentivise additional work or lead to under-declaration of work when including all income sources disqualifies a worker from WIS. By supplementing only the main wage, assessing eligibility on only the basic salary is a more balanced approach.

1.12 Fourth, we recommend phasing out the age differentiation of WIS payouts.

1.13 Currently, WIS payouts increase with the worker's age as older workers have a shorter period in which to save for retirement. However, as the pre-independence birth cohorts age out of the labour force, the age differentiation of WIS payouts could be revisited. The younger generations are more educated and hence better equipped to finance their retirement.

⁷ The MOE Financial Assistance Scheme covers the cost of textbooks, school uniforms and meals in school, and subsidises public transport or school bus fees. However, it is not automatically disbursed unless the household is also receiving ComCare SMTA. Source: Ministry of Education, "Financial assistance" (November 2022), retrieved November 26, 2022, from https://www.moe.gov.sg/financial-matters/financial-assistance

⁸ For a summary, see Hilary Hoynes, "The Earned Income Tax Credit," *The Annals of the American Academy* 686 (November 2019): 180–203.

⁹ Workfare, "Do I qualify?" (November 2022), retrieved November 26, 2022, from https://www.workfare.gov.sg/wis-scheme/employee/do-i-qualify/

1.14 Fifth, we recommend indexing WIS to inflation.

1.15 Currently, the WIS schedule is reviewed and revised every few years to account for "changes in income levels and inflation." Without inflation indexing, the real amount of financial assistance is shrinking over the three-year period, especially during periods of high inflation such as the one we are currently experiencing.¹¹

1.16 Sixth, we recommend increasing the proportion of WIS allocated to cash.

- 1.17 Currently, employees receive 40 percent of WIS in cash and 60 percent in CPF payouts. To further reinforce the incentive to work, we suggest inverting the cash-to-CPF ratio to 60:40. Additionally, having a larger cash component increases the disposable income of WIS recipients, which would better meet their pressing expenditure needs.
- 1.18 We recognise that this change may lower the amount saved for retirement in CPF. However, this may not be an issue. Unlike older generations with inadequate retirement income, Chia and Tsui (2019) projected an average net income replacement rate (with imputed rent) of 67.6 percent for young Singaporean males and 65.0 percent for young Singaporean females in the 30th percentile of the income distribution. These estimates fall within the net replacement rate range recommended by the World Bank, suggesting that ensuring retirement adequacy as one of WIS' policy objectives may become less salient for younger cohorts of workers. Meanwhile, older cohorts of Singaporeans who may face retirement inadequacy receive the Pioneer and Merdeka Packages that comprise mainly healthcare subsidies, which partially defray their healthcare expenditure needs during retirement.

Ministry of Manpower, "Factsheet on changes to the Workfare Income Supplement scheme and CPF contribution rates for low-wage workers" (January 2013), 1, retrieved November 26, 2022 from https://www.workfare.gov.sg/files/pdf-press-release/jan-2013/FACTSHEET%20ON%20CHANGES%20TO%20THE%20WORKFARE%20INCOME%20SUPPLEMENT%20SCHEME%20AND%20CPF%20CONTRIBUTION%20RATES%20FOR%20LOW%20WAGE%20WORKERS.pdf

Singapore's overall inflation was 7.5 percent and core inflation was 5.3 percent in September 2022. Source: Channel News Asia, "Singapore's core inflation rises further to 5.3% in September, edging towards 14-year high" (October 25, 2022), retrieved from https://www.channelnewsasia.com/singapore/singapore-core-inflation-september-2022-cpi-food-prices-3024016

Workfare, "How much?" (November 2022), retrieved November 26, 2022, from https://www.workfare.gov.sg/wis-scheme/employee/how-much/

¹³ Ngee Choon Chia and Albert K. C. Tsui, "Nexus between housing and pension policies in Singapore: measuring retirement adequacy of the Central Provident Fund," *Journal of Pension Economics & Finance* 18, no. 2 (2019): 304–330. https://doi.org/10.1017/S1474747217000506

¹⁴ Ibid

¹⁵ Ministry of Health, "Pioneer Generation Package," (October 2022), retrieved November 26, 2022, from https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/pioneer-generation-package; Ministry of Health, "Merdeka Generation Package," (June 2022), retrieved November 26, 2022, from https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/merdeka-generation-package

2 The Broader Landscape of Work Incentive and Social Protection Schemes

- 2.1 In addition to WIS, the primary work incentive, income support, and social protection schemes are the Workfare Skills Support Scheme (WSS), the Progressive Wage Model (PWM), the Silver Support (SS) Scheme, and the ComCare Short-to-Medium-Term Assistance (SMTA). We briefly explain each of these schemes and identify the gaps in the current landscape of work incentive and social protection schemes in Singapore.
- 2.2 The current patchwork of schemes may be inadequate in improving living standards for groups not covered under their eligibility criteria. For example, PWM with wage ladders is limited to specific sectors and occupations even after its expansion. Meanwhile, ComCare SMTA faces potential exclusion problems by virtue of being a means-tested scheme. While ComCare SMTA supports an estimated five percent of the neediest Singaporeans, households between the 5th and 25th percentile may need more support than what is currently offered by the existing schemes.
- 2.3 Ideally, we want to afford Singaporeans opportunities to thrive, and not merely to survive. Beyond meeting consumption needs, households need a buffer to save for economic and health shocks and to invest in their future and their children's future.

2A Workfare Income Supplement (WIS) Scheme

- 2.4 Workfare comprises the Workfare Income Supplement (WIS) Scheme and the Workfare Skills Support (WSS) Scheme. WIS is a wage subsidy where the government co-pays the wages of Singaporeans both employees and self-employed earning below a wage threshold. As a workfare programme, WIS is conditional on employment.¹⁶
- 2.5 Philosophically, WIS is aligned with Singapore's social welfare objective of promoting hard work and self-reliance. WIS is also aligned with the recommendations made by the Tripartite Workgroup on Lower-Wage Workers in 2021. The recommendations include promoting wage growth for workers at and below the 20th percentile, even if their wage growth outpaces productivity growth. 19

Unlike unemployment insurance where social assistance is given to unemployed individuals, WIS aims to minimise employment disincentives. Source: Weng Tat Hui, "Economic growth and inequality in Singapore: The case for a minimum wage," *International Labor Review* 152, no. 1 (2013): 107–123, retrieved from https://www.academia.sg/wp-content/uploads/2020/09/Hui-Weng-Tat-ILR-2013.pdf

Public Service Division, "Supporting Singaporeans and ensuring no one is left behind," *Prime Minister's Office* (2015), retrieved November 26, 2022, from https://www.psd.gov.sg/heartofpublicservice/our-institutions/supporting-singaporeans-and-ensuring-no-one-is-left-behind/

Ministry of Manpower, "Government Accepts Recommendations by Tripartite Workgroup to Uplift Wages and Well-Being of Lower-Wage Workers" (August 2021), retrieved November 26, 2022, from https://www.mom.gov.sg/newsroom/press-releases/2021/0830-government-accepts-twg-lww-recommendations

¹⁹ Ministry of Manpower, National Trades Union Congress, and Singapore National Employers Federation, "Progress through solidarity & dynamism: Tripartite workgroup on lower-wage workers report" (August 2021), 2, retrieved November 26, 2022 from https://www.mom.gov.sg/-/media/mom/documents/employment-practices/pwm/twg-lww-progress-through-solidarity-dynamism.pdf

- 2.6 Several researchers have compared Singapore's WIS with the U.S.'s Earned Income Tax Credit (EITC). 20 21 22 However, unlike the EITC, WIS is not a welfare-to-work scheme as WIS recipients are not necessarily former recipients of social assistance. 23 Fundamentally, WIS is not a social assistance scheme as payouts are not distributed purely based on financial need. Evidently, it is the Ministry of Manpower (MOM) that administers WIS an employment policy while social assistance is under the purview of the Ministry of Social and Family Development (MSF). 24
- 2.7 However, enhancements to WIS since its inception in 2007 have increased its function of supporting low-income workers. These changes include raising the income ceiling, increasing the maximum payout across all ages and eligible income levels, adjusting the cash-to-CPF ratio, increasing the frequency of payouts, reducing the minimum employment duration to qualify for WIS, and introducing more eligibility criteria to exclude wealthier households (see Appendix A for more details).²⁵ In making these adjustments, it is evident that the government has recognised and responded not only to the rising cost of living, but also to the need for wage growth among low-income individuals.
- 2.8 Furthermore, the eligibility criteria, which include the income and wealth of spouses and family members, ²⁶ suggest that in addition to targeting low-income individuals, WIS is also targeting low-income *households*. However, WIS is disbursed at the individual level, which makes WIS at most a blunt instrument to support low-income households. On one hand, WIS payouts are insufficient for breadwinners with multiple dependents but whose earnings are not low enough to qualify for ComCare. On the other hand, lower-wage individuals in wealthier households can receive WIS.
- 2.9 In policy terminology, WIS lacks targeting as a form of financial support while it is susceptible to leakage. **Figure 1** illustrates the possible leakage in the current WIS, in contrast with the proposed WIS.

²⁰ Freire, 1101.

²¹ Hui, 116.

²² Irene Y. H. Ng, "Workfare in Singapore," in Welfare Reform in East Asia: Towards Workfare?, ed. Chak Kwan Chan and Kinglun Ngok (Routledge, 2012), 138.

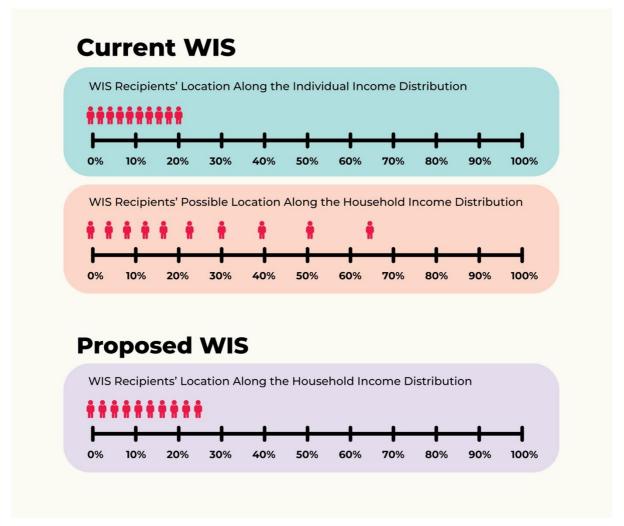
²³ Hui 116

Ministry of Social and Family Development, "Assistance," (April 2022), retrieved June 26, 2022, from https://www.msf.gov.sg/assistance/Pages/default.aspx

²⁵ Damien Huang and Christopher Gee, "Re-allocating the Workfare Income Supplement to Improve Retirement Adequacy Outcomes of Low-wage Workers," in *Demographic Transition and Its Impacts in Asia and Europe*, ed. Sang-Chul Park, Naohiro Ogawa, Chul Ju Kim, Pitchaya Sirivunnabood, and Thai-Ha Le (Asian Development Bank Institute, 2021), 288.

²⁶ Individuals who fulfil any of the following conditions are ineligible for WIS: (i) live in a property with an annual value – the estimated gross annual rent – of more than \$13,000; (ii) own two or more properties, including property owned by a spouse; (iii) the spouse's assessable income exceeds \$70,000. Source: Workfare, "Do I qualify?".

Figure 1: Distribution of Beneficiaries in the Current Individual-Based WIS Compared to the Proposed Household-Based WIS



- 2.10 Furthermore, the effectiveness of WIS in incentivising work may have decreased, especially at the intensive margin. To minimise disincentives resulting from the cliff effect a sudden, vertical drop in the assistance received once recipients exceed the income threshold the WIS payout tapers off as the recipient's wage increases. ²⁷ ²⁸ However, as the maximum WIS payout has increased through the years, the phase-out gradient has also increased such that the disincentive to increase hours of work has also risen, especially for older workers (see section 4 for computations). That is, while WIS encourages work on the extensive margin (whether one chooses to work), it discourages work on the intensive margin (how much one chooses to work).
- 2.11 Indeed, a 2014 MTI study found that WIS has had a positive impact on incentivising less-educated Singaporeans to work, particularly those between 60 and 70 years of age.²⁹ However, the same study also reports:

²⁷ Hypothetical WIS payouts obtained from the WIS calculator for employees: Workfare, "WIS Calculator for Employees" (May 2021), retrieved August 22, 2022, from

 $[\]underline{https://www.workfare.gov.sg/Pages/CalculatorEmployee.aspx}$

²⁸ Ministry of Manpower, "Factsheet on changes to the WIS," 1.

²⁹ Ministry of Trade and Industry, 30–31.

[W]e find that WIS led to a slower rate of increase in gross wages (i.e., wages excluding WIS payout) among workers eligible for WIS compared to workers who were not. Specifically, while gross wages increased across the board between 2004 and 2010, the wage growth of WIS-eligible workers was 0.8 percentage-points (for workers in the younger age band of 35–44) to 3.8 percentage-points (for those aged 55–59) lower than that of workers in the control group, after controlling for demographic and employment-related characteristics.³⁰

The authors posit that the lower wage increase could be due to either WIS-eligible workers choosing to work fewer hours or employers conferring smaller wage increments.³¹

2.12 All in all, while WIS has supported lower-wage workers, there are some gaps in the current system. Its primary goal to incentivise work among low-income older workers is waning, especially at the intensive margin; at the same time, its supportive function to households is blunt. Without indexation for inflation, beneficiaries' incomes lag actual cost of living except in years when WIS quanta are reviewed and adjusted.

2B Workfare Skills Support (WSS) Scheme

2.13 The Workfare Skills Support (WSS) Scheme provides for lower-wage workers in training areas "that are likely to lead to better employment."³² The eligibility criteria for WSS are identical to the criteria for WIS; furthermore, eligible workers may receive a training allowance and/or training commitment award upon meeting more conditions.³³ WSS incentivises workers in the phase-out range to continue striving for higher-wage jobs by upgrading their skills via training, under the assumption that obtaining these skills will help these workers land a higher-wage job.

2C Progressive Wage Model (PWM)

2.14 In addition to Workfare, a key wage policy is the Progressive Wage Model (PWM), which aims to uplift the wages of low-wage workers along with "training and improvements in productivity."³⁴ As of December 2022, PWM covers both Singapore citizens and permanent residents (PRs) in the cleaning, security, retail, lift and escalator, and landscape sectors. ³⁵ PWM will be expanded to include the food services and waste management sectors, as well as

Ministry of Trade and Industry, 32.

³¹ Ibid., 32–33.

Workforce Singapore, "Workfare Skills Support Infosheet" (July 2021), retrieved November 26, 2022, from https://www.wsg.gov.sg/content/programmes-and-initiatives/workfare-skills-support-scheme-individual/wss_infosheet_jul2021.pdf

Workforce Singapore, "Workfare Skills Support (WSS) Scheme" (December 2020), retrieved November 26, 2022, from https://www.wsg.gov.sg/programmes-and-initiatives/workfare-skills-support-scheme-individuals.html

Ministry of Manpower, "What is the Progressive Wage Model" (November 2022), retrieved November 26, 2022, from https://www.mom.gov.sg/employment-practices/progressive-wage-model/what-is-pwm

³⁵ Ibid.

administrative and driving occupations by 2023.³⁶ Further, as of 1 September 2022, firms employing foreign workers must pay local workers a local qualifying salary, which is currently \$1,400 a month.³⁷ However, the PWM extensions exclude self-employed workers, such as platform workers and contract movers.³⁸

- 2.15 Under PWM, employers must meet the wage requirements of their respective sectors for their employees who are citizens or permanent residents.³⁹ Workers under PWM, if eligible, may also receive WIS payouts. Senior Minister Tharman Shanmugaratnam argued that PWM, termed as "minimum wage plus,"⁴⁰ is better than a minimum wage as it "pegs wage increases to a skills ladder" in which "a minimum wage would only be the first rung."⁴¹ Mr Shanmugaratnam conjectured that PWM has contributed to the wage growth of low-wage workers at the 20th percentile between 2010 and 2020.⁴²
- 2.16 Lee and Saez (2012) study the equity-efficiency tradeoff of the minimum wage and argue that the "minimum wage is a useful tool if the government values redistribution toward low wage workers." Furthermore, they find that minimum wage policies such as PWM and subsidies for low-skilled workers such as WIS are complementary and can increase total wellbeing. 43
- 2.17 PWM may not be effective in increasing wages as there are limited opportunities for career advancement in pyramidic structures in the cleaning, security, and landscaping sectors. Moreover, wage increases are not transferable if a worker switches to a different employer. This is common in certain sectors such as the cleaning sector, where competitive tendering processes could result in workers' contracts being reset when they switch employers while continuing to work at the same location.⁴⁴

Ministry of Manpower, "Expansion of Progressive Wage approach and coverage" (November 2022), retrieved November 26, 2022, from https://www.mom.gov.sg/employment-practices/progressive-wage-model/expansion-of-progressive-wage-approach-and-coverage

Ministry of Manpower, "Local Qualifying Salary" (September 2022), retrieved November 26, 2022, from https://www.mom.gov.sg/employment-practices/progressive-wage-model/local-qualifying-salary

Ministry of Manpower et al., "Tripartite workgroup on lower-wage workers report," 23, which states that "ongoing employment facilitation efforts support self-employed persons to seek regular employment if they wish to join or return to the regular labour market. By doing so, they would be able to benefit directly from Progressive wages [...] The Workgroup has thus focused on strategies to uplift employees earning lower wages."

³⁹ Ministry of Manpower, "Progressive Wage Model for the cleaning sector" (September 2022), retrieved November 26, 2022, from https://www.mom.gov.sg/employment-practices/progressive-wage-model/cleaning-sector

⁴⁰ Channel News Asia, "Universal minimum wage of \$\$1,300 could be considered 'parallel' to 'minimum wage plus' approach: Pritam Singh," CNA (October 13, 2020), retrieved from https://www.channelnewsasia.com/singapore/universal-minimum-wage-1300-low-income-workers-pritam-singh-758321

Olivia Ho, "Singapore GE2020: Minimum wage is a rung but the Progressive Wage Model is a ladder, says Tharman," *The Straits Times* (July 7, 2020), retrieved from https://www.straitstimes.com/politics/singapore-ge2020-minimum-wage-is-a-rung-but-the-progressive-wage-model-is-a-ladder-says

⁴² Ibid.

David Lee and Emmanuel Saez, "Optimal Minimum Wage Policy in Competitive Labor Markets," *Journal of Public Economics* 96, no. 9–10 (2012): 739–749. https://doi.org/10.1016/j.jpubeco.2012.06.001

⁴⁴ Irene Y. H. Ng, Yi Ying Ng, and Poh Choo Lee, "Singapore's restructuring of low-wage work: Have cleaning job conditions improved?" *Economic and Labour Relations Review* 29, no. 3 (2018): 308–327. https://doi.org/10.1177/1035304618782558

2D Progressive Wage Credit Scheme (PWCS)

- 2.18 The Wage Credit Scheme (WCS) was first introduced in Budget 2013. From 2013 to 2015, the government co-funded 40 percent of the wage increases of Singaporean employees earning a gross monthly wage of up to \$4,000. The government's co-funding share has been tweaked over the years. 45
- 2.19 In Budget 2022, the government announced a new Progressive Wage Credit Scheme (PWCS), aimed at providing "transitional wage support for employers to (i) adjust to upcoming mandatory wage increases [announced in the Tripartite Workgroup on Lower-Wage Workers Report 2021] for lower-wage workers covered by the Progressive Wage and Local Qualifying Salary requirements; and (ii) voluntarily raise wages of lower-wage workers." The government will co-fund up to 75 percent of the wage increments of lower-wage workers, starting from payouts in the first quarter of 2023. Employers are not required to apply for the scheme, and the wage credits are automatically disbursed.
- 2.20 Arguably, the onus should be on employers to pay their employees a living wage. While the government should be lauded for easing the *transition* for employers, a similar Wage Credit Scheme has been in place since 2013. Notably, the government's share of the wage increase has *risen* between 2013 and 2023.

2E Silver Support (SS) Scheme

2.21 The Silver Support (SS) Scheme was introduced in 2016 to provide "a quarterly cash supplement to seniors who had low incomes during their working years and now have less in retirement." As CPF is a defined-contribution system, where retirement savings in an individual's CPF account are proportionate to their earned income, low lifetime wages imply low retirement savings. Together with Workfare, the SS Scheme is a part of the fourth pillar of the social security system that aims to supplement lower-wage Singaporeans' income. Singaporeans aged 65 and above who are eligible for the SS Scheme will receive it automatically without filing an application. Eligible recipients receive up to \$900 per quarter, depending

https://www.silversupport.gov.sg/About/WhatIsSilverSupport

Inland Revenue Authority of Singapore, "Wage Credit Scheme (WCS)" (October 2022), retrieved November 26, 2022, from https://www.iras.gov.sg/schemes/disbursement-schemes/wage-credit-scheme-(wcs)

⁴⁶ Inland Revenue Authority of Singapore, "Progressive Wage Credit Scheme (PWCS)" (April 2023), retrieved April 21, 2023, from https://www.iras.gov.sg/schemes/disbursement-schemes/progressive-wage-credit-scheme-(pwcs)

⁴⁷ Ibid.

⁴⁸ Ibid. Also, Inland Revenue Authority of Singapore, "Progressive Wage Credit Scheme (PWCS)."

⁴⁹ Silver Support, "What is the Silver Support Scheme," Ministry of Manpower and Central Provident Fund (September 2022), retrieved November 26, 2022, from

⁵⁰ Ibid

To be eligible for this scheme, Singapore citizens aged 65 and above must meet the following criteria: (i) have low lifetime wages, i.e., total CPF contributions (total sum in one's Ordinary Account and Special Account, including the amounts withdrawn for housing, education, and investment) do not exceed \$140,000 by age 55; (ii) self-employed persons have an average annual net trade income not exceeding \$27,600 when they were between 45 and 54 years old; (iii) live in a 1- to 5-room HDB flat and must not own, or have a spouse who owns, a 5-room or larger HDB flat, private property, or multiple properties; and (iv) live in a household with a monthly per capita

- on the type of Housing and Development Board (HDB) flat that they reside in and the per capita household income.⁵²
- 2.22 The quarterly payouts were increased in 2021, benefitting almost 250,000 lower-income senior citizens.⁵³ However, the SS scheme is not indexed to inflation. During the period between policy payout adjustments, the real value of financial support is eroding.

2F ComCare Short-to-Medium-Term Assistance (SMTA) and Related Social Assistance

- 2.23 Social Service Offices (SSOs), which are under the purview of the MSF, administer the ComCare Short-to-Medium-Term Assistance (SMTA), among other social assistance schemes.⁵⁴ The ComCare SMTA aims to "support low-income and vulnerable individuals and families who may be looking for work, are temporarily unable to work [...], or are earning a low income and require financial assistance." Singaporean citizens or PRs with a monthly household income of \$1,900 per month or less or a per capita monthly household income of \$650 or less qualify for the SMTA.
- 2.24 According to the Minister for Social and Family Development, the mean and median monthly cash assistance for ComCare SMTA were \$600 and \$500 per household, respectively, in 2020.⁵⁷ The cash assistance is supplemented by other forms of government assistance and subsidies such as financial assistance for children's education, utilities, service and conservancy fees, and rental subsidies.⁵⁸ Adding the mean cash assistance of \$600 to a household of five members with a per capita household income of \$650 (i.e., a total household income of \$3,250), the total household income of \$3,850 still falls below the relative poverty line of \$5524.75.⁵⁹ 60

income not exceeding \$1,800. Source: Silver Support, "Eligibility Criteria," Ministry of Manpower and Central Provident Fund (September 2022), retrieved November 26, 2022, from https://www.silversupport.gov.sg/About/EligibilityCriteria

https://sprs.parl.gov.sg/search/#/sprs3topic?reportid=written-answer-na-8204

⁵² Silver Support, "Benefits," *Ministry of Manpower and Central Provident Fund* (September 2022), retrieved November 26, 2022, from https://www.silversupport.gov.sg/About/Benefits

⁵³ Silver Support, "What is the Silver Support Scheme."

⁵⁴ Ministry of Social and Family Development, "ComCare Short-to-Medium Term Assistance" (October 2022), retrieved November 26, 2022, from https://www.msf.gov.sg/Comcare/Pages/Short-to-Medium-Term-Assistance.aspx

⁵⁵ Ministry of Social and Family Development, "Community Care Endowment Fund: Annual Report for Financial Year 2020" (2020), 4, retrieved November 26, 2022, from https://www.msf.gov.sg/publications/Documents/FY20%20ComCare%20Annual%20Report.pdf

⁵⁶ Ministry of Social and Family Development, "ComCare Short-to-Medium Term Assistance."

Masagos Zulkifli, "Success Rate of ComCare Applications and Common Reasons for Rejection," *Hansard* 95, no. 32 (July 6, 2021), retrieved November 26, 2022, from

⁵⁸ Ibid

⁵⁹ Irene Y. H. Ng, "Definitions and measurements of poverty 2020," SSR Snippet, no. 4 (2020): 2–9, retrieved from https://fass.nus.edu.sg/ssr/wp-content/uploads/sites/8/2020/11/Snippet_Issue4_Poverty_Poor_Work_2020.pdf

⁶⁰ Changes to ComCare have been announced recently. A two-person household will get \$1,080 per month, up from \$1,000. A three-person household will receive \$1,510, up from \$1,400, while a four-person household will get \$1,930, up from \$1,750. Source: Shermaine Ang and Syarafana Shafeeq, "Higher ComCare cash assistance for

Obstacles in the application process

- 2.25 ComCare SMTA employs means testing. Means-tested schemes may fail to reach some of their target groups who are eligible but choose not to apply⁶¹ due to obstacles such as extensive and intrusive qualification tests and onerous administrative procedures in the application process.⁶² For example, the ComCare SMTA application process requires applicants to submit evidence to authenticate the applicant's account of their financial situation.⁶³
- 2.26 Once the application is approved, recipients receive financial assistance for a predetermined period of time such as three months or six months. Recipients have to reapply to extend the financial assistance. The temporary and uncertain nature of financial assistance may induce stress and anxiety. Uncertainty can result in intolerance of uncertainty (IU), a condition where individuals believe that they are unable to "cope with ambiguity and change" and have an adverse reaction to uncertainty.⁶⁴ IU also increases vulnerability to many anxiety disorders and depression.⁶⁵
- 2.27 The government has made some effort to reduce the frequency of these obstacles in the application process. For instance, SSOs have established Streamlined Assessment Protocols, where ComCare SMTA recipients can access various forms of support based on only one means-testing assessment, instead of having to apply separately for different schemes and undergo multiple assessments. ComCare applicants who are also account-holders need not separately submit information on HDB rental, Singapore Power Utilities, and service and conservancy charges. Starting from 2022, recipients of ComCare SMTA assistance automatically qualify for other relevant social assistance schemes such as the Ministry of Education's (MOE) Financial Assistance Scheme (FAS) and the MSF's Student Care Fee

vulnerable households from Aug 1," *The Straits Times* (June 21, 2022), retrieved from https://www.straitstimes.com/singapore/more-short-to-medium-term-and-long-term-assistance-for-lower-income-households

The government has also announced more support for low wage workers through the extension of the wage credit scheme. Source: Sue-Ann Tan, "Lower-wage workers, job seekers to get more support under enhanced measures," *The Straits Times* (June 22, 2022), retrieved from https://www.straitstimes.com/singapore/lower-wage-workers-and-job-seekers-to-get-more-support-under-enhanced-measures

Rema Hanna and Benjamin A. Olken, "Universal Basic Incomes versus Targeted Transfers: Anti-Poverty Programs in Developing Countries," *Journal of Economic Perspectives* 32, no. 4 (2018): 201–226. https://www.aeaweb.org/articles?id=10.1257/jep.32.4.201

⁶² Albert L. Nichols and Richard J. Zeckhauser, "Targeting Transfers through Restrictions on Recipients," American Economic Review 72, no. 2 (1982): 372–377.

⁶³ Yen Kiat Chong, "Getting By: Neoliberal Governmentality and the Lack of Success in Instilling Financial Self-Reliance," *Journal of Social Policy*, (2021): 1–18. https://doi.org/10.1017/S0047279421000672

R. Nicholas Carleton et al., "Increasingly certain about uncertainty: Intolerance of uncertainty across anxiety and depression," *Journal of Anxiety Disorders* 26, no. 3 (2012): 468–479. https://doi.org/10.1016/j.janxdis.2012.01.011

⁶⁵ Ibid., 476.

- Assistance scheme.⁶⁶ ComCare SMTA recipients including those earning less than \$500 a month also automatically receive WIS payouts.⁶⁷
- 2.28 In other words, social assistance application processes have been and continue to be streamlined to increase comprehensive and convenient support for applicants as well as to improve coordination across different agencies.⁶⁸ However, whether these streamlined processes improve the targeting efficiency of these social assistance schemes remains to be evaluated.

Welfare traps

2.29 Importantly, means-tested schemes tend to result in welfare traps⁶⁹ – disincentives to exit welfare programmes and moral hazard effects like job search delays.⁷⁰ Receiving ComCare assistance is often conditional on action plans for recipients to secure stable employment.⁷¹ In reality, such conditionality has not helped some recipients achieve financial independence and find an appropriate job that matches their personal circumstances.⁷² Obtaining a job may be insufficient for ComCare recipients to attain self-reliance, especially if they have other unresolved family and health complications that are barriers to sustained employment.⁷³ For instance, the full-time work that applicants had to accept in order to receive assistance from the SSO may entail long telecommuting time that is incompatible with everyday schedules and caregiving arrangements.⁷⁴ In such cases, applicants may forsake ComCare assistance, and instead choose to take a longer time to find a job that suits their circumstances and work-family schedules.⁷⁵ Moreover, when a child falls sick, a single parent would have to take time off work to take care of the child, which may result in termination from employment.

Theresa Tan, "Budget debate: Needy families on ComCare can soon automatically get aid from other schemes," *The Straits Times* (March 10, 2022), retrieved from https://www.straitstimes.com/singapore/politics/budget-debate-needy-families-on-comcare-can-soon-automatic

 $[\]underline{https://www.straitstimes.com/singapore/politics/budget-debate-needy-families-on-comcare-can-soon-automatically-get-aid-from-other-schemes$

Hui Min Chew, "Workers on Comcare earning below \$\$500 can still get Workfare, says Manpower Minister," Channel News Asia (March 1, 2022), retrieved from https://www.channelnewsasia.com/singapore/budget-2022-debate-workfare-workers-wages-tan-see-leng-2529246

⁶⁸ Tan, "Needy families on ComCare."

⁶⁹ Hilary W. Hoynes and Jesse Rothstein, "Universal Basic Income in the US and Advanced Countries," *National Bureau of Economic Research Working Paper* 25538 (2019), 4, retrieved from https://www.nber.org/papers/w25538

Dan A. Black et al., "Is the Threat of Reemployment Services More Effective Than the Services Themselves? Evidence from Random Assignment in the UI System," *American Economic Review* 93, no. 4 (2003): 1323–1327.

⁷¹ Chong, 4.

⁷² Ibid., 10.

Hillary X. L. Tan and David Lim S. Y. "Standing in the gap: An analysis of personal experiences with the Social Service Office," *HeartBeats: Journal of the Chua Thian Poh Community Leadership Center* 5 (2018): 304–328, retrieved from https://ctpclc.nus.edu.sg/wp-content/uploads/2018/04/Heartbeats-Vol5-Ch8.pdf

⁷⁴ Chong, 10–11.

⁷⁵ Ibid.

Limited target recipients

- 2.30 The current eligibility criterion of a household income of \$1,900 and below, with some flexibility exercised, implies that ComCare assistance is accessible to about the bottom five percent of the population, using the mean household income of the bottom decile as a proxy. Given the multitudes of challenges faced by lower-income workers, those in the bottom income quintile could use some assistance. As a society, we are increasingly recognising that there is a tier of lower-income households beyond the small group of ComCare SMTA recipients that need more long-term support. In particular, they require a buffer to weather negative shocks and to invest in their future.
- 2.31 Incorporating ComCare SMTA with WIS implies that when a household member starts working, they do not perceive themselves as "losing" financial assistance. Instead, they continue gaining a household earnings supplement in the form of WIS. Moreover, since WIS payouts are automatic as opposed to ComCare payouts, which require an extensive application process and periodic reviews the work incentive associated with WIS is stronger and more salient.

2G One-Off Cash Assistance Payouts

2.32 Beyond ComCare, the government has been disbursing various cash assistance payouts, such as the Care and Support package from the COVID-19 Resilience Budget⁷⁷ as well as the Assurance Package Cash and Cost-of-Living Special Payment.⁷⁸ Lower-income workers receive higher quanta, which are automatically disbursed to all eligible recipients.⁷⁹ Although these payouts have been more frequent since the COVID-19 outbreak, they are reactions to uncommon global shocks — the pandemic and high inflation — and are thus neither guaranteed nor regular. Moreover, each budget needs to be approved by parliament annually,⁸⁰ and by the President if it is funded by the national reserves.⁸¹ While these payouts may help lower-income

Department of Statistics Singapore, "Average Monthly Household Income from Work (Including Employer CPF Contributions) Among Resident Employed Households" (February 2022), retrieved November 26, 2022, from https://tablebuilder.singstat.gov.sg/table/CT/17800; and Department of Statistics Singapore, "Average Monthly Household Income from Work Per Household Member (Including Employer CPF Contributions) Among Resident Employed Households" (February 2022), retrieved November 26, 2022, from https://tablebuilder.singstat.gov.sg/table/CT/17803

Gov.sg, "Solidarity Budget 2020: Additional cash payments to help families get through Circuit Breaker phase," (April 6, 2020), retrieved November 26, 2022, from https://www.gov.sg/article/solidarity-budget-2020-additional-cash-payments-to-help-families-get-through-circuit-breaker-phase

Ministry of Finance, "Up to 2.9 million adult Singaporeans will receive Assurance Package Cash and Cost-of-Living (COL) Special Payment in December 2022," (November 15, 2022), retrieved November 26, 2022, from <a href="https://www.mof.gov.sg/news-publications/press-releases/up-to-2.9-million-adult-singaporeans-will-receive-assurance-package-cash-and-cost-of-living-(col)-special-payment-in-december-2022

⁷⁹ Ibid

⁸⁰ Yan Han Goh, "Parliament approves \$109b Budget after vigorous debate impacted by virus surge, Ukraine war," *The Straits Times* (March 11, 2022), retrieved from https://www.straitstimes.com/singapore/politics/parliament-approves-109b-budget-after-vigorous-debate-impacted-by-virus-surge-ukraine-war

⁸¹ See Kit Tang, "COVID-19 Resilience Budget: 'Landmark' S\$48 billion package to tide Singapore through 'unprecedented' crisis," CNA (March 26, 2020), retrieved June 26, 2022, from

households cope with adverse shocks, they are not disbursed as regular income support like WIS.

 $[\]underline{https://www.channelnewsasia.com/singapore/covid-19-resilience-budget-package-economy-jobs-employment-1324871}$

3 Reimagining WIS to Address the Gaps in Work Incentive and Social Protection Schemes

- 3.1 While the government has attempted to address the needs of various groups, low-wage workers are currently being supported via a slew of schemes and policies. This approach is administratively costly and may negatively affect take-up rates. From an individual's perspective, keeping track of the various programmes, especially those with application and renewal processes, can be mentally taxing. We advocate a more holistic approach that recognises the needs of the individual worker as well as the needs of their household.
- 3.2 Any assessment of WIS must be done in conjunction with the other work incentive and social protection schemes. First, in terms of work incentive, WIS is subsidised by the government and by extension, taxpayers while PWM places the onus on employers. We contend that PWM should be the primary policy as employers should bear the responsibility of paying fair wages. WIS, as the secondary policy, further supports the worker and their household.
- 3.3 Workers are responsible not only for themselves, but also for their dependents. The sizes and needs of households may vary quite a bit. While schemes such as the ComCare SMTA target approximately the bottom five percent of the population, those between the 5th and 25th percentile of the household income distribution may benefit significantly from additional support. In particular, households with young children will be able to shift from a short-term focus on meeting current needs to investing in their children's future.
- 3.4 Currently, both PWM and WIS are disbursed at an individual level. However, WIS, in assessing eligibility, considers wealth criteria such as housing value and spousal income. Similarly, the Community Health Assist Scheme (CHAS) considers household monthly income; if the household has no income, housing value is used instead.⁸⁴ With the sharing of data across ministries, determining WIS eligibility at the household level is feasible. Furthermore, automatic computation of eligibility by the government bypasses the problems that have emerged in the EITC the financial costs borne by workers when filing a tax return and noncompliance or errors in the claimed EITC.⁸⁵

3A Reimagining a Household-Based WIS

3.5 We reimagine a WIS that is expanded to uplift the individual worker along with their family, following the EITC. Notwithstanding the fact that WIS targets working *individuals*, WIS is part

OECD, "Increasing Financial Incentives to Work: The Role of In-work Benefits," in OECD Employment Outlook (OECD, 2005), 156, retrieved November 26, 2022, from https://www.oecd.org/els/emp/36780865.pdf

Bid

⁸⁴ Community Health Assist Scheme, "Eligibility and Application" (n.d.), retrieved November 26, 2022, from https://www.chas.sg/eligibility-and-application

Hoynes, "The Earned Income Tax Credit." According to Hoynes, the "largest source of noncompliance relates to misclaiming of qualifying children . . . The other major category of overclaiming is income misreporting," 196.

- of the fourth pillar of Singapore's social security system, which aims to address "not only the needs of the low-wage worker, but also those of his family." 86
- 3.6 However, WIS in its current form considers only the worker's age, employment status (employee or self-employed), and income when determining the disbursement amount. Currently, WIS eligibility criteria do not account for the size and needs of the worker's household. Workers who are raising young children, supporting elderly parents or grandparents, or caring for disabled family members face far greater financial burdens than those with no dependents.
- 3.7 In addition, an individual-based WIS implies leakage to low-wage workers in high-income households.
- 3.8 We propose adjusting the WIS quantum according to the number and composition of household members. Since WIS already collects household information to assess eligibility, its purpose has been expanded beyond employment creation to include elements of social protection. Hence, revamping WIS as a household-level scheme is more incremental than reformative.

Empowering workers to invest in their future and their children's future

- 3.9 Increasing the WIS quantum for workers with more dependents will allow workers to invest in their future and their children's future. Beyond living expenses and retirement needs, a long-term focus entails saving to weather negative shocks as well as investing in assets such as housing. Having a buffer could also enable workers to take time off work to upskill themselves and advance to a higher-paying job.
- 3.10 Furthermore, an increased quantum for workers with more dependents will enable them to invest in their children. Researchers have found that a policy-induced increase in EITC generosity in childhood has positive effects on educational attainment and employment outcomes in adulthood. For example, Bastian and Michelmore (2018) show that an annual additional \$1,000 in EITC exposure when a child is between 13 and 18 years old raises the likelihood of completing high school by 1.3 percent, of completing college by 4.2 percent, and of being employed as a young adult by 1.0 percent, and increases earnings by 2.2 percent. ⁸⁷ See Appendix B for details on other research findings.
- 3.11 Collectively, these studies show that increased resources during childhood via schemes like the EITC mitigate intergenerational income inequality and enhance intergenerational mobility.

⁸⁷ Jacob Bastian and Katherine Michelmore, "The Long-Term Impact of the Earned Income Tax Credit on Children's Education and Employment Outcomes," *Journal of Labor Economics* 36, no. 4 (2018): 1127–1163.

⁸⁶ Jacqueline Poh, "Workfare: The Fourth Pillar of Social Security in Singapore," *Civil Service College Singapore*, no. 3 (October 2007), retrieved November 26, 2022, from https://www.csc.gov.sg/articles/workfare-the-fourth-pillar-of-social-security-in-singapore

These schemes are especially important given that rising income inequality has resulted in widening class gaps in parental financial investments in children.⁸⁸

Recognising the value of unpaid household work

- 3.12 Having elucidated the benefits of increased payouts for larger households, we now turn to the other function of WIS incentivising work. Our proposal retains the requirement of having at least one working household member to qualify for WIS. Thus, our proposed policy reform is consistent with "the principle of individual responsibility," that is, to preserve the onus for work-able Singaporeans to be employed in paid work.⁸⁹
- 3.13 Transitioning WIS from an individual-based approach to a household-based approach may induce the second worker in some households to switch from paid employment to unpaid household work, which may include caring for children or elderly or disabled family members and routine housework such as cooking, cleaning, and laundry.
- 3.14 These tasks, while unpaid, have economic value. The replacement cost approach estimates the value of unpaid labour by assuming that one hour of unpaid household work would be as valuable as the price of the same hour of labour outsourced to paid household service providers, i.e., household members are relieved from these tasks for a market price. ⁹⁰ The value of time spent on unpaid labour using the replacement cost approach is estimated to be around 15 percent of GDP, roughly equal to the average value added by the manufacturing sector in the OECD.
- 3.15 Households will make decisions on which members should engage in paid employment and which members should engage in unpaid household work based on total costs and benefits, which include intangibles such as the value derived from taking care of their children and other family members. Should certain members decide to forgo paid employment in favour of unpaid household work, a household-based WIS partially compensates them for the unpaid caregiving and housework.

Accounting for time poverty

- 3.16 Low-income households suffer from time poverty. Relative to their higher-income counterparts, lower-income parents are more likely to work weekends and night shifts and to have less flexible work hours.
- 3.17 Furthermore, they lack the financial wherewithal to purchase time-saving appliances or to pay for services such as childcare, elderly care, or housekeeping. Hence, they spend more time on

⁸⁸ Daniel Schneider, Orestes P. Hastings, and Joe LaBriola, "Income Inequality and Class Divides in Parental Investments," *American Sociological Review* 83, no. 3 (2018): 475–507. https://doi.org/10.1177/0003122418772034

⁸⁹ Donald Low, "New options in social security," in *Hard Choices: Challenging the Singapore Consensus*, ed. Donald Low and Sudhir Thomas Vadaketh (NUS Press, 2014), 125.

⁹⁰ OECD, Bringing Household Services Out of the Shadows: Formalising Non-Care Work in and Around the House (OECD Publishing, 2021), 20. https://doi.org/10.1787/fbea8f6e-en

home production activities. The literature on time poverty argues that current material-based income support programmes overlook the need to compensate low-income households for time poverty. 91 92

3.18 A household-based WIS recognises the value of time in low-income households, especially the time that parents spend with their children in investment activities such as reading to or with their children, helping with homework, playing games or sports, engaging in arts and crafts, and providing or obtaining medical care. Studies in the U.S., the UK, and Australia show that these investment activities lead to improved cognitive and behavioural outcomes in children.⁹³

3B Strengthening Work Incentives

- 3.19 The design of WIS matters in encouraging work. As the WIS quantum increased through the years, the work incentives embedded in the current design have weakened.
- 3.20 Consider a 45-year-old worker, Loong, who earns \$500 a month. He receives a WIS payout of \$125. According to the 2020–2022 WIS payouts, for every additional \$100 he earns up to \$700 the WIS payout rises by \$25.00.96 This is the phase-in rate, which is 25.0%.
- 3.21 Subsequently, for every additional \$100 he earns between \$700 and \$1,200 the WIS payout rises by around \$6.60 or a rate of 6.6%.
- 3.22 Loong receives the maximum WIS payout of \$208 if his monthly earnings are between \$1,200 and \$1,500. For every additional \$100 he earns beyond \$1,500 until \$2,200, the WIS payout falls by \$26.00. This is the phase-out rate, which is 26.0%. The sharp reduction in the WIS payout may disincentivise Loong from working more hours.
- 3.23 The change to a household-based WIS is an opportunity to increase the phase-in rate, thus incentivising entry into work, and to decrease the phase-out rate, thus minimising disincentives to work more hours (see section 4 for detailed comparison of the 2020–2022 and proposed WIS phase-in and phase-out rates).

⁹¹ Clair Vickery, "The time-poor: A new look at poverty," Journal of Human Resources 12, no. 1 (1977): 27-48.

⁹² Laura M. Giurge, Ashley V. Whillans, and Colin West, "Why time poverty matters for individuals, organisations and nations," *Nature Human Behaviour* 4 (2020): 993–1003. https://doi.org/10.1038/s41562-020-0920-z

⁹³ Amy Hsin and Christina Felfe, "When Does Time Matter? Maternal Employment, Children's Time with Parents, and Child Development," *Demography* 51, no. 5 (2014): 1867–1894. https://doi.org/10.1007/s13524-014-0334-5

⁹⁴ Emilia Del Bono, Marco Francesconi, Yvonne Kelly, and Amanda Sacker, "Early Maternal Time Investment and Early Child Outcomes," *Economic Journal* 126, no. 596 (2016): F96–F135. https://doi.org/10.1111/ecoj.12342

Mario Fiorini and Michael P. Keane, "How the Allocation of Children's Time Affects Cognitive and Noncognitive Development," *Journal of Labor Economics* 32, no. 4 (2014): 787–836. https://doi.org/10.1086/677232

⁹⁶ Workfare, "WIS Calculator for Employees."

⁹⁷ Ibid.

⁹⁸ Ibid.

3C Assessing WIS Eligibility Based on Basic Salary

- 3.24 Eligibility for WIS is assessed on gross monthly income, including basic salary and extra wages such as overtime pay and bonuses. 99 For instance, a 45-year-old worker who earns \$2,200 a month in basic salary is eligible for WIS. But if he decides to work overtime, and earns \$400 in overtime pay, his gross monthly income now exceeds the qualifying threshold and he is no longer eligible for WIS. Essentially, he is being "penalised" for working more hours.
- 3.25 To eliminate such disincentives, we propose assessing WIS eligibility based on basic salary and not gross monthly income. Workers who work overtime either by choice or because they are obliged to do so by their employers should not be rendered ineligible for WIS. Supplementing the basic salary through WIS also provides fractionally more income to the worker such that the need for overtime may be lessened. This more balanced approach is important when many low-income earners are able to increase their income only by working overtime. But in doing so, they may be disqualified from WIS.

3D Phasing Out the Age Differentiation of WIS Payouts

- 3.26 While there have been recommendations to standardise the WIS payouts across all eligible age groups, ¹⁰⁰ ¹⁰¹ the government has maintained that the rationale for age differentiation is to give more to older workers who have a shorter runway to save for retirement. ¹⁰² Over time, the pre-independence birth cohorts who had fewer educational opportunities than their younger compatriots will age out of the labour force. The proportion of residents with no more than a secondary education among those age 55 and above fell from 87 percent in 2007 to 68 percent in 2021. ¹⁰³ Thus, the need for age differentiation will become less compelling.
- 3.27 As a developed nation, ageing with dignity has surfaced as a policy objective in programmes such as Age Well Everyday, ¹⁰⁴ which partly aims to improve the quality of life of seniors. In line with Singapore's retirement age that will eventually be raised to 65, seniors above that age should not be compelled to work, according to MOM. ¹⁰⁵ The right to retire should not be the preserve of those with a certain level of income. We envisage that as the proportion of seniors

⁹⁹ Workfare, "Do I qualify?".

¹⁰⁰ Zainal Sapari, "Reflections on WIS and PWM," *LabourBeat* (February 12, 2019), retrieved from https://www.labourbeat.org/opinions/zainal-sapari-reflections-wis-pwm/

¹⁰¹ Huang and Gee, 287.

Ministry of Manpower, "Speech by Minister of State for Manpower Zaqy Mohamad at Committee of Supply 2019 – Inter-Ministry Joint Segment on Inequality and Mobility," (March 5, 2019), retrieved November 26, 2022, from https://www.mom.gov.sg/newsroom/speeches/2019/0305-speech-by-minister-of-state-zaqy-mohamad-at-committee-of-supply-2019--inter-ministry-joint-segment-on-inequality-and-mobility

¹⁰³ Department of Statistics, "Singapore Residents Aged 25 Years & Over By Highest Qualification Attained, Sex and Age Group," (February 2022), retrieved January 10, 2023, from https://tablebuilder.singstat.gov.sg/table/TS/M850581

¹⁰⁴ Nadine Chua, "More seniors benefiting from dementia prevention programme mooted by SM Teo's late wife," *The Straits Times* (May 8, 2022), retrieved from https://www.straitstimes.com/singapore/health/more-seniors-benefiting-from-dementia-prevention-programme-mooted-by-sm-teos-late-wife

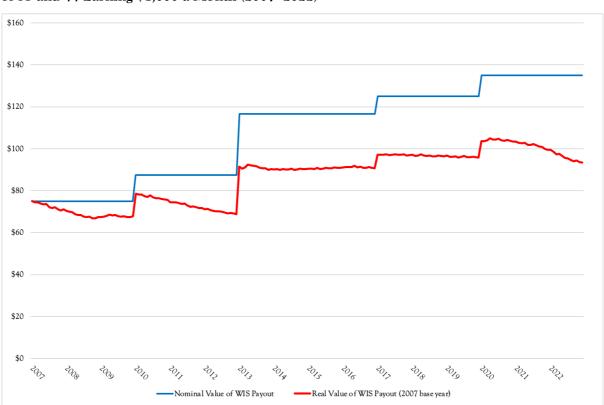
¹⁰⁵ Sue-Ann Tan, "Retirement and re-employment ages in Singapore will be raised to 65 and 70," *The Straits Times* (November 1, 2021), retrieved from https://www.straitstimes.com/singapore/politics/retirement-and-re-employment-ages-will-be-raised-to-65-and-70

with inadequate retirement savings shrinks over the next ten to twenty years, wage policies characterised by disproportionately strong work incentives for seniors can be phased out. Going forward, strongly encouraging the low-income elderly to work while setting a legal retirement age makes for inconsistent social policy.

3E Indexing WIS to Inflation

- 3.28 Currently, none of the work incentive or social protection schemes are indexed to inflation. While adjustments to WIS are announced every few years, there is rarely an explicit acknowledgement that the adjustment is done partly to account for inflation.
- 3.29 The absence of an inflation index indicates that the value of financial assistance is eroding over the years, as shown in **Figure 2**. As prices rise and purchasing power declines, the low-income are hit especially hard.

Figure 2: Nominal Value vs. Real Value of Monthly WIS Payout for a Worker Between the Ages of 35 and 44 Earning \$1,000 a Month (2007–2022)



Source: Singapore Department of Statistics, Ministry of Manpower.

3.30 As an alternative to indexing WIS to inflation, the government could consider reviewing WIS every year instead of every three years to reduce the time lag between inflation and WIS adjustments. This could be administered in a manner similar to the way that the Public Transport Council (PTC) conducts the annual Fare Review Exercise, which recommends "realistic" public transport fare revisions to allow for "operating revenue [to] cover operating

costs" and "justifiable cost increases." ¹⁰⁶ For instance, although public transport operators faced greater costs and lower revenue due to COVID-19 restrictions and safe-distancing measures in 2020, the PTC deferred 2020's fare increments to the following year to "help commuters cope with the impact of the pandemic" in the short run. ¹⁰⁷ While WIS reviews are focused on cash payouts instead of price increases, both adjustments are responses to rising costs. Thus, having more regular WIS reviews is not only feasible, but also allows for more rapid and responsive adjustments to prevailing economic conditions each year.

3F Increasing the Proportion of WIS Allocated to Cash

- 3.31 The proportion of WIS payouts allocated to cash should be increased to strengthen work incentives and support immediate expenditure needs, with negligible impact on government expenditure.
- 3.32 First, allocating a larger proportion of WIS payouts to the cash component provides a stronger work incentive due to present bias, where a dollar received today generates greater utility than a dollar received in the future. 108 Increasing the proportion of cash disbursement raises disposable income; the benefit of working becomes more salient, especially for recipients who discount future income from WIS' CPF payouts.
- 3.33 Second, a larger proportion of WIS cash payouts alleviates pressing everyday expenditure needs and acts as a bulwark against negative shocks. The former assistant secretary-general of the National Trades Union Congress (NTUC), Zainal Sapari, called for the cash component to be raised for WIS to "translate to higher disposable income for the workers to address their immediate needs." He proposed that the cash allocation be adjusted to 80 percent to match the prevailing employee CPF contribution rate of 20 percent. 110
- 3.34 We suggest a more moderate adjustment of 60 percent cash allocation, in recognition of WIS' objective to meet the retirement adequacy of low-wage workers. For example, a person aged 55 in 2022 would take home \$55 more in cash per month if the cash-to-CPF ratio is inverted to 60:40, amounting to a total monthly disposable income of \$1,665 instead of \$1,610.¹¹¹
- 3.35 In response to these suggestions to increase the cash component of WIS, the Ministry of Manpower (MOM) reiterated the importance of retirement adequacy and the benefits of compounded interest earned from CPF savings. 112 Additionally, MOM occasionally disburses

¹⁰⁶ Jean Chia, "Regulating public transport fares in Singapore: What can we afford?" *Lee Kuan Yew School of Public Policy Case Studies* (2017), 6, retrieved from https://lkyspp.nus.edu.sg/docs/default-source/gia-documents/regulating-public-transport-fares-in-singapore--what-can-we-afford.pdf

Public Transport Council, "2021 Fare Review Exercise," (2021, November 3), retrieved November 26, 2022, from https://www.ptc.gov.sg/newsroom/news-releases/newsroom-view/2021-fare-review-exercise

David Laibson, "Intertemporal Decision Making," Encyclopaedia of Cognitive Science (2003), 3.

¹⁰⁹ Zainal Sapari, "Reflections on WIS and PWM."

Joanna Seow, "NTUC calls for higher wage supplements for younger low-wage workers," *The Straits Times* (February 12, 2019), retrieved from https://www.straitstimes.com/business/ntuc-calls-for-higher-wage-supplements-for-younger-low-wage-workers

Workfare, "WIS Calculator for Employees."

Ministry of Manpower, "Speech by Minister of State for Manpower Zaqy Mohamad."

Workfare bonuses, such as the Workfare Bicentennial Bonus in 2018, which are paid in cash. 113

- 3.36 However, Singapore is experiencing the highest inflation rate since 2008. Low-wage households, in particular, face challenges in meeting their basic needs as the Consumer Price Index increased by 6.1% in 2022.¹¹⁴ Furthermore, while the wages of low-wage workers may rise over time,¹¹⁵ they are unlikely to keep up with inflation. The purchasing power of low-wage workers is significantly reduced, notwithstanding other short-term government transfers and subsidies.
- 3.37 Third, changing the cash-CPF ratio does not affect the government's immediate WIS expenditure on WIS. Nonetheless, lower proportions of the WIS payouts allocated to CPF will reduce the available amount of savings for investment and retirement. Government expenditure on subsidising post-retirement healthcare needs may increase in the future.

113 Ibid

Rosalind Ang, "Consumer prices up 6.1% in 2022, with top earners seeing biggest rise among income groups in H2," *The Straits Times* (January 26, 2023), retrieved from https://www.straitstimes.com/business/consumer-prices-up-61-in-2022-with-top-earners-seeing-biggest-rise-among-income-groups-in-h2

Prisca Ang, "Singapore core inflation hits 5.3% in September, close to 14-year high," *The Straits Times* (October 25, 2022), retrieved from https://www.straitstimes.com/business/economy/singapore-core-inflation-hits-53-in-september-close-to-14-year-high

4 Design of a Household-Based WIS

4.1 How much should the WIS quantum vary by the number of household members? We explore different household configurations and compare the new WIS schedule to the WIS schedule in 2020–2022. In **Figures 3–8**, we illustrate what a household-based WIS schedule may look like for households of different sizes and compositions. The income supplement (cash and CPF) of our proposed WIS (in red) is compared with that of the 2020–2022 WIS (in blue) in each figure. Appendix C contains four cases that illustrate the differences in payouts between the current and proposed WIS for four types of household configurations.

4A Household with Two Adults, One Teenager, and One Child (Two Adults Working)

- 4.2 We start with a household of two adults (married couple) with two children (one teenager in secondary school and one child in primary school). This is the household configuration for which Ng (2020) estimated poverty thresholds. Absolute poverty was based on itemised computations of basic consumption needs and amounted to \$1,913 in 2020.
- 4.3 Absolute poverty in consumption alone, however, barely provides for survival needs. If a household in Singapore is to get out of poverty, it needs investment goods such as computers, low-cost tuition for the children, and basic life insurance. Ng (2020) computed the absolute poverty in consumption and basic investments as \$2,008 in 2020. Adjusting these two poverty thresholds to 2022 prices with the 2021 inflation rate at 2.3 percent and the 2022 inflation rate estimated to be around 5 percent suggests an absolute poverty threshold of \$2,055 and an absolute poverty in consumption and basic investments threshold of \$2,157.
- 4.4 We could imagine a WIS that provides the maximum quantum to households around these absolute poverty thresholds to boost their chances of escaping poverty. The schedule then plateaus to ranges that coincide around the PWM minimum wage levels and the income range to which the current WIS pays the highest quanta (\$1,200-\$1,500), but multiplied by two (\$2,400-\$3,000) for the two adults in our illustrative household type. Thereafter, the schedule tapers down to zero when it reaches the relative poverty threshold (rounded up to \$5,600). Using the same formula in Ng (2020), an updated relative poverty threshold using statistics from the Department of Statistics Singapore stands at \$5,524.75 in 2021.¹¹⁹
- 4.5 **Figure 3** shows the WIS schedule described above. The schedule starts at \$750, a number that is derived as follows. MOM has announced that to qualify for WIS, an individual has to earn at least \$500 a month. For a household with two working-age adults, we apply the OECD equivalised scale of 0.5 per additional adult to arrive at a minimum monthly income of \$750.

The WIS schedules in Figures 3 to 8 reflect the WIS payouts in 2020–2022.

Ng, "Definitions and measurements of poverty 2020," 8.

¹¹⁸ Ibid.

Department of Statistics Singapore, "Average Monthly Household Income from Work (Including Employer CPF Contributions) Among Resident Employed Households."

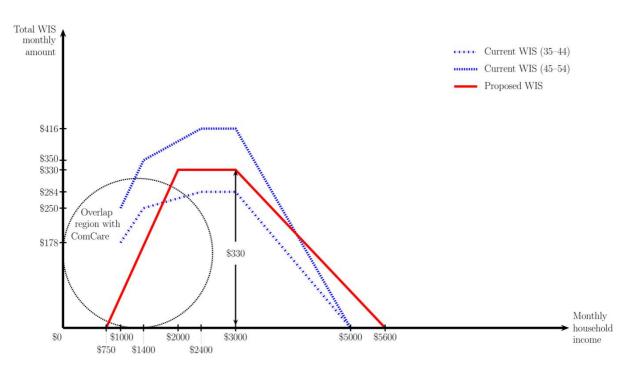
Joanna Seow, "Minimum income criterion for Workfare payouts will exclude Singaporeans who need them: MPs," *The Straits Times* (February 28, 2022), retrieved from

 $[\]frac{https://www.straitstimes.com/singapore/politics/minimum-income-criterion-for-workfare-payouts-will-exclude-singaporeans-who-need-them-mps$

We believe that this is a reasonable level of income that signals the policy intent that both adults in the household should work, yet caters to households where the second adult may not be able to work full-time or even part-time. If the household relies on only one income earner, the \$750 threshold for the commencement of WIS support is not excessively high as the sole earner will likely need to work full-time to support the family. Households with such low levels of income will likely require social assistance in any case. In **Figure 3**, the circle indicates the region of the WIS schedule that overlaps with ComCare SMTA.

- 4.6 From zero payout at a monthly household income of \$750, the schedule rises to the maximum WIS payout at a monthly household income of \$2,000, just below the absolute poverty level. It then plateaus until the monthly household income reaches \$3,000. Subsequently, it tapers down to zero when the household monthly income reaches \$5,600, which is the relative poverty level rounded up.
- 4.7 To keep up with rises in household income, the income cap (i.e., the level at which the WIS payout reaches zero) can be pegged at half of median household income so that WIS automatically supports households at the relative poverty level in any given period.
- 4.8 As for the WIS quantum, we have illustrated the case of a maximum payment of \$330 a month, where 60 percent is in cash and 40 percent is in CPF contribution, as detailed in section 3C. This flips the current distribution of 40 percent in cash and 60 percent in CPF contribution, giving a household with a monthly income of \$2,000 a take-home payout of \$198 to raise their monthly income to meet basic consumption and investment needs and a CPF contribution of \$132 for retirement needs. The CPF contribution is an important function of WIS for low-income households as it provides an important savings avenue that is not accounted for in absolute poverty measures. Practically, without WIS, a four-person household earning \$2,000 a month will find it extremely challenging to contribute to their CPF.

Figure 3: Proposed and Current WIS Schedules for Household with Two Adults, One Teenager, and One Child (Two Adults Working)



- 4.9 The proposed WIS schedule is designed to maximise work incentive, minimise work disincentive, and encourage upgrading. Along the horizontal portion of the WIS schedule, the WIS payout is constant at \$330 for monthly household incomes of \$2,000 to \$3,000. If working members increase their earnings from the absolute poverty level to the PWM level (assuming two earners), they are not discouraged from taking up the minimum PWM wages (e.g., \$1,312 for the cleaning sector¹²¹ and \$1,442 for the security sector¹²²) and its related training programmes in order to earn PWM wages.
- 4.10 For monthly household income levels of \$3,000 to \$5,600, the proposed WIS payout declines gradually, with a gradient of -0.127. The flat slope in the phase-out portion decreases the implicit tax rate of an increase in income for every additional dollar earned, the overall income still increases even as the WIS payout is gradually reduced. Therefore, work disincentives are minimised. Conversely, to incentivise work, the slope of the phase-in portion for monthly household income levels of \$750 to \$2,000 is almost twice as steep at a gradient of 0.24 WIS payouts increase more rapidly with every additional dollar earned.
- 4.11 The proposed household-based WIS complements the other policies supporting low-income earners. At the bottom end, starting the WIS payout at a monthly household income of \$750 instead of \$0 decreases duplication with ComCare SMTA. At such low income levels, the household will need social assistance in any case. Some overlaps in households receiving ComCare SMTA and small amounts of WIS prevent gaps in assistance, but from a monthly household income of \$750 onwards, a steep slope can act as a strong incentive to increase work and decrease dependence on ComCare SMTA. Although ComCare SMTA assistance is likely to be higher than WIS payouts, the fact that WIS payouts are automatically disbursed should make WIS an attractive option relative to the stringent means-testing to renew ComCare SMTA.
- 4.12 The horizontal portion with the highest WIS payouts extending to earnings levels corresponding to PWM wages (lower levels of PWM for two earners and higher levels of PWM for a single earner) complements the objectives of PWM. Thereafter, as WIS payments phase out, the slope is fairly flat to minimise work disincentives to attain wages above PWM levels.
- 4.13 While we have attempted to align the proposed WIS to existing thresholds and poverty levels, the WIS schedule can be adjusted depending on which policy goals are prioritised. To strengthen work incentives, the phase-out slope can be made flatter and the phase-in slope steeper by increasing both the lowest and highest household incomes for the receipt of WIS while maintaining the range of household income that receives the maximum WIS payout. Evaluations of the effects on work effort at the phase-in, plateau, and phase-out portions of the WIS schedule along with evaluations of the effects on well-being will be instructive.
- 4.14 Overall, our proposed WIS schedule is meant to be illustrative rather than prescriptive. A household-based WIS is possible and can be beneficial at this time as WIS has evolved since its inception.

¹²¹ Ministry of Manpower, "Progressive Wage Model for the cleaning sector."

Ministry of Manpower, "Progressive Wage Model for the security sector," (September 2022), retrieved November 26, 2022, from https://www.mom.gov.sg/employment-practices/progressive-wage-model/security-sector

4B Household with Two Adults, One Teenager, and One Child (One Adult Working)

- 4.15 The current WIS schedules for individuals aged 35–44 and 45–54 (blue lines, **Figure 3**) map closely to our proposed WIS schedule if we assume that both adults in the household work and receive WIS. We plotted the current WIS schedule using the calculator on the CPF Board website with the slight modification of commencing payout at an individual monthly income of \$500 (\$1,000 for two working adults), as announced, and followed the WIS payout amount for that income level. ¹²³
- 4.16 However, if only one adult works, our proposed WIS schedule grants a higher payout over a greater range of income levels, as shown in **Figure 4**. The proposed WIS schedule remains the same as shown in **Figure 3** whereas the current WIS schedule is halved. This is an expected difference in transiting from an individual-based to a household-based workfare. The proposed WIS schedule is insensitive to changes in the number of working members, but instead responds to household income according to the household's needs. If the household income is \$2,000, for instance, the WIS payout is \$330 regardless of whether the income comes from one, two, or more household members. In this way, the proposed WIS shifts to a policy with a primary objective of supporting low-income households and a secondary objective of maintaining work incentive. As argued earlier, with the changes in recent years to limit WIS to lower-income *households*, this shift is a natural next step in workfare policy.
- 4.17 The transition therefore poses a possible decrease in work incentive for some household types, but this is mitigated by the internal incentive compatibility of the design of the proposed WIS. Take the case of a household with a monthly household income of \$2,600. This household may comprise two low-wage workers working full-time, as illustrated in **Figure 3**. Our proposed WIS is designed to support such household types where all working-age household members are working full-time and still barely making ends meet by offering them maximum WIS payouts.
- 4.18 On the other hand, this household may be one where a single worker earns \$2,600, such that the other adult can stay home to care for the two children. A transition from the current WIS to the proposed WIS may therefore encourage a household member who is currently working either full-time or part-time to stop working. This transition effect could be temporary and would also depend on the household's cost-benefit assessment of earnings forgone relative to the gains from the additional time that can be spent on childcare or other pursuits. The maximum WIS payout of \$330 is only a fraction of a part-time monthly salary, and thus it might make sense only for individuals who are earning very low wages or working very few hours to stop working and instead stay home with the children or with family members who require care. Households will decide who engages in paid labour based on the tangible and intangible costs and benefits, as discussed in section 3A (see 3.12–3.15 on recognising the value of unpaid household work and 3.16–3.18 on accounting for time poverty as examples of the benefits of having a stay-at-home parent). For an illustration of how the proposed WIS may benefit such a household, see Appendix C, Case I.
- 4.19 **Figure 4** can also apply to a household comprising a single parent and three children, which is illustrated as Case II in Appendix C.

Workfare, "Enhancements to Workfare," (2022), retrieved November 19, 2022, from https://www.workfare.gov.sg/files/Workfare%20Factsheet%20From%20WY2023.pdf

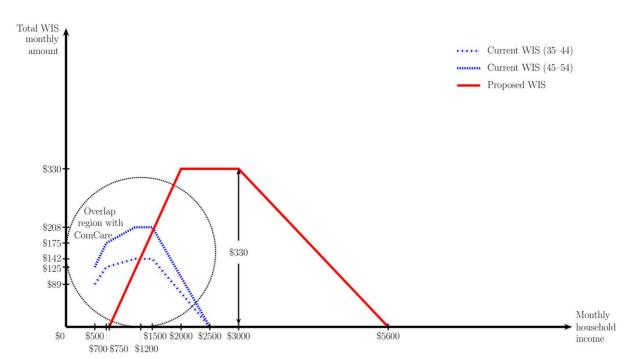


Figure 4: Proposed and Current WIS Schedules for Household with Two Adults, One Teenager, and One Child (One Adult Working)

- 4.20 The proposed WIS is also designed with a stronger internal incentive compatibility than the current WIS. For a household with one adult earning \$2,600, the horizontal portion followed by the flat downward slope of the phase-out region aims to decrease work disincentive, as explained earlier. In contrast, for individuals aged 45–54 in the current WIS, the initial phase-in gradient is 0.25 and the phase-out gradient is a similar magnitude of -0.26. The WIS schedules for other age ranges have a similar shape. In other words, the slope of the phase-in region in the current WIS is flatter than that in the proposed WIS whereas the slope of the phase-out region in the current WIS is steeper than that in the proposed WIS. For a younger individual, the phase-in work incentive in the current WIS may not be sufficiently strong, whereas for an older individual who receives substantially higher WIS payouts, the phase-out work disincentive is substantial.
- 4.21 Perhaps at present, the WIS schedule for workers older than 60 is meant to encourage seniors to put in a few hours of work that will enable them to get by. In other words, the focus is not on encouraging workers along the intensive margin (the number of hours of work). However, going forward, as future generations of older workers become more educated and work-able, this strong work disincentive as one phases out of WIS will be more of a concern.

Variation of WIS by Household Configuration 4C

- 4.22 How do the proposed WIS payment amounts vary by household size and the ages of household members? Starting from the household composition illustrated in Figure 3 and Figure 4, where the household comprises two working-age adults, one teenager, and one child younger than 14 years old, we apply the OECD-modified equivalence scale¹²⁴ to the WIS schedule, with our own proposed scaling for elderly household members. Table 1 lists the OECD-modified equivalence scales and computations of the scaling for different household configurations.
- 4.23 We introduce a scale with a higher weightage for a senior household member for two reasons. First, we use it as an in-between measure from the current WIS that gives seniors much higher WIS payouts. Second, we use it in recognition of the less generous social security system in Singapore relative to OECD countries. Our age cut-off for seniors follows Singapore's retirement age of 63 as of July 2022. Similarly, a household member with disability is given a higher weightage.

Table 1: Applying OECD-Modified Equivalence Scales to Different Household Compositions

OECD-Modified Equivalence Scales, with An Additional Scale for the Elderly and Persons with Disability

First adult/teen (aged 14 to below 63) = 1 point

Second adult = 0.5 point

First senior (aged 63 and above) or person with disability (regardless of age) = 1.2 points

Second senior or person with disability = 0.7 point

Child (aged below 14) = 0.3 point

Scales for Different Household Compositions Illustrated in This Report

- (1) 2 adults, 1 teen, 1 child = $1 + 2 \times 0.5 + 0.3 = 2.3$ points (Figures 3-4)
- (2) 2 adults, 1 teen, 1 child, 1 senior = $1 + 2 \times 0.5 + 0.3 + 0.7 = 3$ points (Figures 5–6)
- (3) 2 adults = 1 + 0.5 = 1.5 points (Figure 7)
- (4) 2 adults, 2 teens, 3 children = $1 + 3 \times 0.5 + 3 \times 0.3 = 3.4$ points (Figure 8)

Scaling from household compositions (1) to (2) = 3/2.3 = 1.304

Scaling from household compositions (1) to (3) = 1.5/2.3 = 0.652

Scaling from household compositions (1) to (4) = 3.4/2.3 = 1.478

November 26, 2022, from https://www.oecd.org/els/soc/OECD-Note-EquivalenceScales.pdf

¹²⁴ OECD, "What are equivalence scales?" OECD Project on Income Distribution and Poverty (n.d.), retrieved

Figure 5: Proposed and Current WIS Schedules for Household with Two Adults, One Teenager, One Child, and One Senior (Two Adults Working)

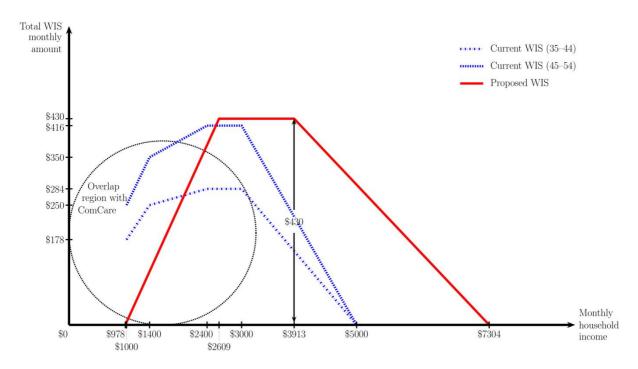
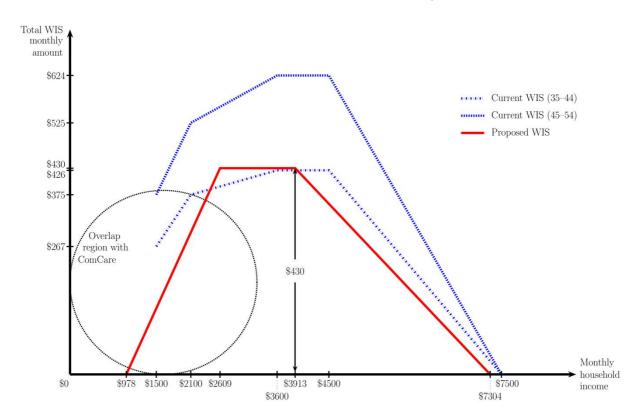
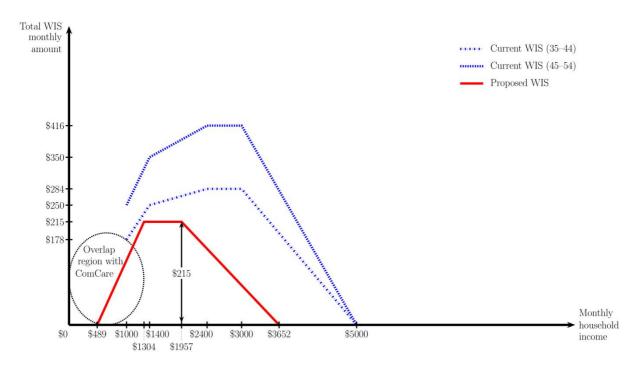


Figure 6: Proposed and Current WIS Schedules for Household with Two Adults, One Teenager, One Child, and One Senior (Two Adults and One Senior Working)



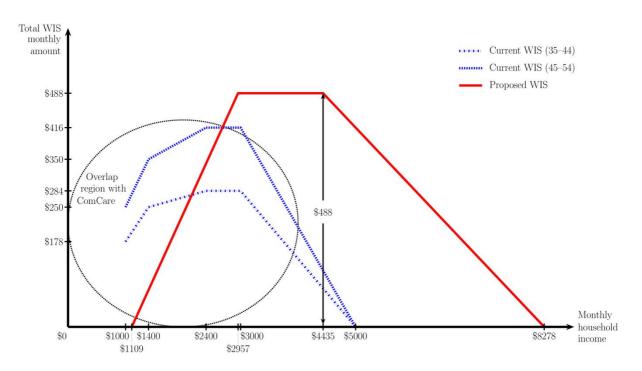
- 4.24 Figure 5 and Figure 6 illustrate household composition (2) with two adults, one teenager, one child, and one senior. The proposed WIS schedule is scaled up by 1.304 points such that the schedule begins at \$978, peaks at \$2,608, starts to slope down at \$3,912, and ends at \$7,302. In the scenario where the two adults work and the senior does not work (Figure 5), the proposed WIS grants a higher payout over a greater range of incomes except for households with very low incomes. The lower WIS payouts to households with very low incomes are again strategic as these households will be eligible for ComCare SMTA.
- 4.25 In the scenario where the senior also works, however, the proposed WIS payout is less than the current WIS payout (Figure 6). Similar to the explanations in the differences between Figure 3 and Figure 4 on whether the second adult works or not, the design of the proposed household-based WIS prioritises the needs of the household. The third household member in this case, the senior is not specifically compelled to work by a separate WIS schedule, but neither are they discouraged from working since the phase-out region of the proposed WIS schedule is flat. The design of the proposed WIS decreases the hardship of low-income households, especially of a frail elderly who now has more leeway in choosing whether to work. For an illustration of this household composition with a senior member and how the proposed WIS may impact the senior's decision to work, refer to Appendix C, Case III.
- 4.26 Figure 7 illustrates the case of household composition (3) with two adults (perhaps a husband and wife with adult children who have moved out or with no children), or a pair of siblings, or a parent and an adult child. Given that households do share some expenses, e.g., furniture and appliances, we suggest that the default is to treat the co-residents as a single household unit unless household members choose to declare otherwise.

Figure 7: Proposed and Current WIS Schedules for Household with Two Adults (Both Working)



- 4.27 In Figure 7, we see yet another case where the current individual-based WIS grants a higher payout than the proposed WIS. There could be some work disincentive for marginal cases, but this actually improves the targeting of WIS because the current individual-based WIS doubles payouts without consideration of shared household expenses. In this sense, the individual-based WIS overpays this household type with only two working adults, whose expenses are lower than a household with two working adults and one or more dependents. Appendix C, Case IV shows an example of how the current WIS may overpay such households. The illustration of this household type suggests that a household-based WIS does not imply increased government expenditures across the board. WIS expenditure may in fact decrease for certain households.
- 4.28 Finally, **Figure 8** illustrates the case of a large household with two adults and five children three below 14 years old and two between 14 and 21 years old (household composition 4). In terms of work status, it illustrates the scenario where the two adults work. The proposed WIS grants a higher payout since it accounts for additional household members. Similar to earlier arguments, work disincentives will likely appear only in marginal cases where a household member is working only a few hours or has very low earnings.
- 4.29 To ensure that WIS payouts do not increase indefinitely, the household configuration with an equivalence scale of 3.4, as illustrated in **Figure 8**, could be set as the limit for WIS payment amounts, above which the WIS schedule will not expand further. Larger families needing more financial support beyond their earnings and WIS payments can apply for ComCare SMTA. The number of such needy families is expected to be small. In this respect, our proposed household-based WIS is more targeted than the individual-based WIS whose wealth criteria exclude only very high-earning or high-net-worth households.

Figure 8: Proposed and Current WIS Schedules for Household with Two Adults and Five Children of Whom Two are 14 and Above and Three are Below 14



4D Implementation of a Household-Based WIS

- 4.30 On the principle that individuals living in the same address share at least some resources such as furniture, appliances, utilities, and conservancy fees, WIS households can be defined as family members having the same address. Currently, only taxpayers need to file taxes. If a household-based WIS is introduced, all income earners could be asked to complete an annual filing, with high-income earners paying taxes, and low-income earners receiving WIS as a form of negative tax.
- 4.31 During the filing, basic information on relationships and ages of household members can be collected, which will also facilitate the disbursement of other benefits such as parent tax relief, child tax relief, and CHAS. Agencies such as NTUC and SSOs can be mobilised, along with volunteers, to help low-income or low-educated individuals who face challenges with the effiling process.
- 4.32 While the EITC literature suggests that filing has been a key challenge among recipients, ¹²⁵ the Singapore version will likely be much more straightforward because automation will ensure that most of the required information will be pre-filled. The sharing of backend data across ministries has facilitated the automatic disbursement of schemes such as WIS and CHAS. A household-based WIS will necessitate more specific data requirements. With increased crossministry data sharing, even more of the required information can be pre-filled. Overcoming any barriers to data sharing enhances the overall efficiency of the delivery of services while retaining a reasonable degree of precision in information. Going forward, keeping the filing process simple should continue to be a key consideration.
- 4.33 In terms of computing household earnings, an age threshold could be set such that the earnings of all household members aged 21 and above are accounted for in the determination of the WIS payment amount. Thus, filing could be required for all household members aged 21 and above who are working, with parents or legal guardians filing information on children below the age of 21. In this way, any earnings for family members below the age of 21 will be disregarded in the WIS calculation. As for seniors who have stopped working, an adult member in the household can file on their behalf under that adult member's own filing, and it would be in their interest to do so.
- 4.34 Disbursement of WIS could be distributed to all members according to the OECD-modified weights, with the additional 0.5 from the first adult in the equivalised scale equally distributed to all non-child members of the household. WIS payments meant for children below the age of 21 could be disbursed as shown in **Table 2**. Meanwhile, WIS payments for seniors who have retired could be in their own accounts already on file before they retired, or if no record of accounts is available or accounts have changed, these could be updated at filing.
- 4.35 Requiring all individuals to file will partially mitigate the issue of self-employed individuals not making contributions to CPF, in particular Medisave, which is an important objective for self-employed individuals in the current WIS. This requirement addresses the inertia of self-employed individuals to make contributions to their Medisave in order to receive WIS.

-

Hoynes, "The Earned Income Tax Credit."

4.36 Verifying the accuracy of income declarations of self-employed individuals is difficult. As the EITC literature has found, there is bunching along the kinks in the EITC schedule among the self-employed, ¹²⁶ and this is to be expected. However, this issue is not unique to the household-based WIS. If anything, mandating the annual filing of incomes even among the self-employed may lead to investments in formalising or e-processing income verification processes such that the e-filing system can also capture non-standard sources of income. This is a worthwhile investment given the changing nature of work away from standard employee-based employment.

Table 2: WIS Payments for Children Below 21

Age of Child	WIS Payment to
0-6	100 percent to the mother's account unless the mother nominates another household member as the custodian
7–12	60 percent to the mother's account unless the mother nominates another household member as the custodian 40 percent to the child's Edusave account
13-20	60 percent to the mother's account unless the mother nominates another household member as the custodian 40 percent to the child's Post-Secondary Education Account (PSEA) account

42

Hoynes, "The Earned Income Tax Credit."

5 Potential Impact of the Proposed WIS

- 5.1 Ng (2020) estimated that about eight percent of working households are in absolute poverty in basic consumption and investment, and 24 percent are in relative poverty. ¹²⁷ While Ng's estimates do not adjust for household composition, we could use them to compute a rough gauge of the number of households that will benefit from the proposed household-based WIS. All 24 percent of households in relative poverty will benefit from WIS given our proposed design of WIS payments up to slightly above the relative poverty threshold. However, the WIS payments are insufficient to lift them above the relative poverty levels. Doing so will create a vertical cliff effect, which is an untenable policy design.
- 5.2 We turn now to the eight percent of working households in absolute poverty. If switching to a household-based WIS results in half of these households being lifted out of absolute poverty or accumulating additional savings and resources for longer-term investments, be it by the actual WIS payments or the incentive to work more, this benefits four percent of households. This is a conservative estimate. The rest of these households are possibly earning such low incomes that they will still require support from ComCare.
- 5.3 Taken together, the proposed WIS is estimated to benefit households in the 5th to 25th percentiles of the household income distribution, with the bottom five percent served by ComCare. Potentially, ComCare caseloads may decrease if some higher-earning ComCare-eligible households are incentivised by WIS to increase their hours of work to receive WIS.
- 5.4 Moreover, the investments made by workers for their future and their children's future may pay dividends in the years to come.
- 5.5 The net impact of the proposed household-based WIS relative to the current individual-based WIS is potentially positive. The proposed household-based WIS is more targeted in alleviating financial hardship relative to the current individual-based WIS, which leads to greater leakage to households that do not require the support, since the household income/wealth eligibility is not as stringent. Yet, the work incentives of the proposed household-based WIS are not necessarily weaker than those of the current individual-based WIS as the new design of the WIS schedule could potentially generate stronger intensive and extensive margins to work.
- 5.6 In terms of costs, while the household-based WIS could incur greater costs in devoting resources towards annual filing, there could be cost savings in fewer applicants needing to apply for ComCare. Quantum wise, while some households will receive less, others will receive more. Thus, the net cost of the proposed WIS may not be higher than that of the current WIS. Overall, given the potentially net positive impact and minimal change in costs, the cost effectiveness of a household-based WIS is promising.

¹²⁷ Ng, "Definitions and measurements of poverty 2020."

 $^{^{128}}$ For example, an individual whose spouse's assessable income is just under \$70,000 is eligible for WIS. Source: Workfare, "Do I qualify?".

6 Conclusion

- 6.1 Having reviewed Singapore's employment and social assistance policy landscape, we posit that current policies may not collectively meet the consumption and investment needs of lower-income households. We therefore reimagine a WIS that complements a policy framework emphasising employers' responsibility of paying fair and adequate wages via PWM, with the reimagined WIS and ComCare serving as supplementary government measures to support households.
- 6.2 To address the prevailing gaps of current policies, we reimagine WIS with six proposals: (i) transition from an individual-based WIS to a household-based WIS; (ii) redesign WIS with a steeper phase-in slope and a flatter phase-out slope; (iii) assess eligibility on basic salary; (iv) standardise WIS payouts regardless of the recipient's age; (v) index WIS to inflation; and (vi) increase the proportion allocated to cash payouts.
- 6.3 Our suggested WIS design varies by household configuration to allow for a more targeted allocation of assistance quanta. In view of an ageing population, where working adults have to support more dependents, it is timely and apposite for WIS to be tailored to household needs and not just individual needs. Furthermore, supply disruptions resulting from climate change and geopolitical conflict are likely to become recurrent challenges. Thus, indexing WIS to inflation and allocating a higher proportion of WIS payouts to cash would better alleviate financial pressures arising from rising costs of living. The high inflation rates experienced in the past year make these recommendations urgent.
- 6.4 In line with the design of the current individual-based WIS, our proposal requires at least one household member to be employed in paid work for the household to qualify for WIS, which preserves the work ethic and the value of self-reliance. With a steep phase-in gradient and a flat phase-out gradient, the proposed WIS has a stronger internal incentive compatibility than the current WIS. Going forward, pegging the income cap to half of median income can ensure a flat phase-out slope as WIS payouts are revised upwards.
- 6.5 The proposed WIS is also designed to complement other policies supporting low-income households. The implementation of a household-based WIS requires some form of filing by households, but the process can be kept simple with pre-filled information, something that is possible today with the advancement of analytics technology that was not available fifteen years ago when WIS was first introduced. Greater data sharing across ministries will enable more automation with pre-filled data, thus increasing the efficiency of the implementation of the proposed WIS and the delivery of services overall.
- 6.6 In sum, we present a reimagination of a policy that can adapt to the challenges of the future a future characterised by a socioeconomic context that differs from the time when WIS was initially conceived.

Appendix A: The Evolution of WIS

- A.1 The following list includes the main types of changes to WIS since its implementation in 2007:
 - 1. Raised the income ceiling: The income ceiling was \$1,500 a month in 2007. 129 It was raised to \$1,700 in 2010, 130 \$1,900 in 2013, 131 \$2,000 in 2016, 132 \$2,300 in 2019, 133 and \$2,500 in 2022. 134
 - 2. Raised the maximum WIS payouts across all levels of income within the eligible income and age ranges: The maximum annual assistance quanta were increased by \$150 to \$400 in 2010, 135 \$350 to \$700 in 2013, 136 \$100 to \$500 in 2016 for workers earning between \$1,000 and \$1,600, 137 up to \$400 in 2019, 138 and at least \$200 in the 2022 review.
 - 3. Raised the proportion disbursed in cash for employees from 29 percent to 40 percent, as well as from 0 percent to 10 percent for the self-employed, in 2013.¹⁴⁰
 - 4. Lowered the eligible age to 30 years old from 35 years old in 2022.¹⁴¹ This has been recommended by the former assistant secretary-general of NTUC, Mr Zainal Sapari, ¹⁴² as well as authors from the Institute of Policy Studies (IPS), though the latter proposed lowering the eligible age to 25 years old. ¹⁴³

Tsin Yen Koh and Pamela Qiu, "Workfare in Singapore: A case study," NS World Public Governance International (2011), 6, retrieved from https://www.pgionline.com/wp-content/uploads/2021/03/13.-Workfare-in-Singapore.pdf

¹³⁰ Ibid., 9.

Yong Chuan Toh, "Budget 2013: Workfare to benefit more low-wage workers," *The Straits Times* (February 25, 2013), retrieved from https://www.straitstimes.com/singapore/budget-2013-workfare-to-benefit-more-low-wage-workers

Workfare, "Factsheet on enhancements to Workfare," (March 25, 2016), 1, retrieved November 26, 2022, from https://www.workfare.gov.sg/files/pdf-press-release/mar-2016/Factsheet%20on%20Enhancements%20to%20Workfare.pdf

¹³³ Adrian Lim, "Singapore Budget 2019: Higher payouts under Workfare, more support for older workers," *The Straits Times* (February 18, 2019), retrieved from https://www.straitstimes.com/singapore/singapore-budget-2019-higher-payouts-under-workfare-more-support-for-older-workers

¹³⁴ Seow, "Budget 2022."

¹³⁵ Koh and Qiu, 9.

¹³⁶ Ministry of Manpower, "Factsheet on changes to the WIS," 1.

¹³⁷ Shea Driscoll, "Singapore Budget 2016: More low-wage workers to qualify for Workfare Income Supplement scheme that tops up their income," *The Straits Times* (2016, March 24), retrieved from https://www.straitstimes.com/business/economy/singapore-budget-2016-more-low-wage-workers-to-qualify-for-workfare-income

¹³⁸ Lim, "Singapore Budget 2019."

¹³⁹ Seow, "Budget 2022."

¹⁴⁰ Ministry of Manpower, "Factsheet on changes to the WIS," 2.

¹⁴¹ Workfare, "Enhancements to Workfare."

¹⁴² Seow, "NTUC calls for higher wage supplements for younger low-wage workers."

¹⁴³ Huang and Gee, 288.

- 5. Reduced the minimum employment duration requirement implemented in 2007 from at least three months in the six-month window or six months in the calendar year, ¹⁴⁴ to a minimum of two months out of three months in each quarter in 2012, ¹⁴⁵ to determining eligibility based on each month worked in 2016. ¹⁴⁶
- 6. Increased the frequency of payouts from twice a year in 2007 to every quarter in 2012, and finally to every month since 2016. 147
- 7. Introduced more qualifying criteria in 2013 to exclude wealthier households. The following groups have been excluded from WIS since then: (i) individuals who own two or more properties, or married individuals who own at least two properties together with their spouses, and (ii) married individuals whose spouses' annual income exceeds \$70,000. 148

¹⁴⁴ Koh and Qiu, 9.

¹⁴⁵ Ministry of Manpower, "Factsheet on changes in payment frequency of the Workfare Income Supplement scheme," (2012), 1, retrieved November 26, 2022 from https://www.mom.gov.sg/-/media/mom/documents/speeches/2012/cos-factsheet--changes-in-payment-frequency-of-workfare-income-supplement-scheme.pdf

¹⁴⁶ Workfare Singapore (2016), 2.

¹⁴⁷ Huang and Gee, 302–303.

¹⁴⁸ Ministry of Manpower, "Factsheet on changes to the WIS," 2.

Appendix B: The EITC Literature on the Impact on Children

- B.1 Using a federal expansion of the EITC for two-child households in the 1990s, Dahl and Lochner (2012) show that a \$1,000 increase in family income generated by the EITC increased math and reading test scores on the Peabody Individual Achievement Test (PIAT) by 6 percent of a standard deviation. 149
- B.2 Manoli and Turner (2018) find that among low-income households, a \$1,000 increase in cash-on-hand from tax refunds during a child's senior year of high school increases college enrolment by 1.3 percentage points. 150
- B.3 These results are corroborated by Chetty, Friedman, and Rockoff (2011), who show that an annual \$1,000 increase in tax credits improves test scores by 6–9 percent of a standard deviation. These improved test scores increase the likelihood of attending college at age 20 by 0.30–0.45 percentage points and raise the quality of colleges that students attend. The higher test scores also result in significant increases in earnings in adulthood. 151

¹⁴⁹ Gordon B. Dahl and Lance Lochner, "The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit," *American Economic Review* 102, no. 5 (2012): 1927–1956.

Day Manoli and Nicholas Turner, "Cash-on-Hand and College Enrollment: Evidence from Population Tax Data and the Earned Income Tax Credit," *American Economic Journal: Economic Policy* 10, no. 2 (2018): 242–271.

Raj Chetty, John N. Friedman, and Jonah E. Rockoff, "New evidence on the long-term impacts of tax credits," *Statistics of Income White Paper* (Internal Revenue Service, Washington, DC, 2011).

Appendix C: Illustrative Examples of How the Proposed WIS Impacts Households

C.1 The four illustrative cases below show the differences in payouts between the current individual-based WIS and the proposed household-based WIS for four household configurations. The estimated absolute poverty threshold for the household composition in each case (calculated based on Ng, 2020¹⁵²) is also included for a gauge of where that household stands relative to a minimum poverty level.

Ng, "Definitions and measurements of poverty 2020."

Case I: Lee Family (Two Adults and Two Children)

- C.2 Case I is a household with young children and an adult who is too young to qualify for the current WIS. This case illustrates the under-support of low-wage young earners with young children in the current individual-based WIS.
- C.3 Should Mrs Lee stay home to care for the young children for a few years, the household's monthly income will be \$1,800, and it will receive \$277 in the proposed household-based WIS. Although \$277 is substantially lower than Mrs Lee's monthly salary of \$1,000, the family could potentially get by with Mrs Lee opting out of the labour force for a short period. This is not possible with an individual-based WIS, in which case the Lees will need to apply for ComCare. However, they may not do so, and even if they do, Mrs Lee may be asked to work. The ComCare support is also subject to review every three or six months.

Mr Lee, 35, earns \$1,800 per month as a senior security officer

Mrs Lee, 28, earns \$1,000 per month as a part-time early childhood educator

One toddler child

One infant child

Household Earnings

\$2,800 (\$700 pci)

Estimated Absolute Poverty Threshold \$2,157

Quantum Under Current Individual-Based WIS

Mr Lee :\$ 89 Mrs Lee :\$ 0 Total :\$ 89

Quantum Under Proposed Household-Based WIS

Total : \$ 330



Note: Refer to Figures 3-4 for the corresponding WIS schedules.

Case II: Pereira Family (One Adult and Three Children)

C.4 Case II is a single-headed household that may need ComCare without the proposed household-based WIS. It illustrates the under-support of low-wage single parents in the current individual-based WIS. Although Ms Pereira will likely qualify for ComCare, the automatic activation of the proposed household-based WIS eliminates Ms Pereira's cost of applying for ComCare and ComCare's cost of assessing the application.

Madam Pereira, 42, a single parent, earns \$2,200 per month as a patient service associate

Three children

Household Earnings

\$2,200 (\$550 pci)

Estimated Absolute Poverty Threshold \$2,157

Quantum Under Current Individual-Based WIS

Madam Pereira :\$ 20

Quantum Under Proposed Household-Based WIS

Total :\$330



Note: Refer to Figure 4 for the corresponding WIS schedule.

Case III: Mehta Family (Two Adults, One Senior, and Two Teenagers)

C.5 Case III is a household with a senior member who is better supported by the proposed household-based WIS as the senior member gets more frail. If the senior member does not work, the household could qualify for ComCare. However, they would not need ComCare under the household-based WIS. Case III illustrates how the current individual-based WIS over-prioritises work among low-wage elderly workers.

Mr Mehta, 49, earns \$1,800 per month as a condominium cleaner

Mrs Mehta, 47, earns \$1,200 per month as a school canteen operator

Senior Mehta, 77, earns \$600 per month as a part-time plate collector

Two teenagers

Household Earnings

\$3,600 (\$720 pci) if Senior Mehta works \$3,000 (\$600 pci) if Senior Mehta does not work

Estimated Absolute Poverty Threshold \$2,813

Quantum Under Current Individual-Based WIS

Mr Mehta : \$130
Mrs Mehta : \$208
Senior Mehta : \$167
Total if Senior Mehta works : \$505
Total if Senior Mehta does not work : \$338

Quantum Under Proposed Household-Based WIS

Total regardless of

whether Senior Mehta works : \$430



Note: Refer to Figures 5-6 for the corresponding WIS schedules.

Case IV: Ali Family (Two Adults)

C.6 Case IV is a household that receives high WIS payment under the current individual-based scheme, but the household members are in least need of it relative to the other three cases. It is an example of over-support of certain households in the individual-based WIS. In this case, Mr and Mrs Ali's adult children, who used to live with them, have moved out of the household.

Mr Ali, 56, earns \$1,300 per month as a cleaner

Mrs Ali, 56, earns \$1,300 per month as a cleaner

Three adult children who no longer live with them

Household Earnings

\$2,600 (\$1,300 pci)

Estimated Absolute Poverty Threshold \$1,407

Quantum Under Current Individual-Based WIS

Mr Ali : \$ 275 Mrs Ali : \$ 275 Total : \$ 550

Quantum Under Proposed Household-Based WIS

Total : \$ 111



Note: Refer to Figure 7 for the corresponding WIS schedule.