YOUTH.sg:

The State of Youth in Singapore 2021



Youth & Their Strides Towards Flourishing



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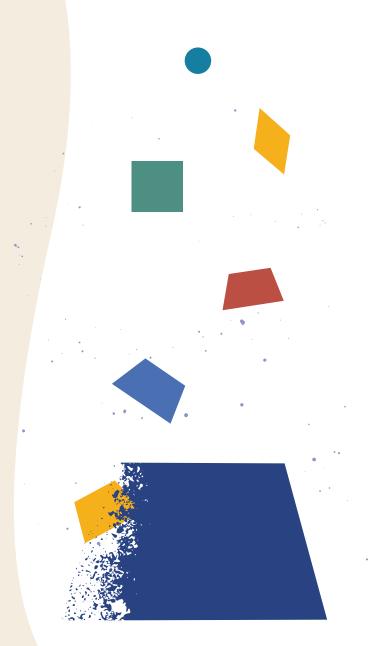
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The chapters compiled in this publication affirm the National Youth Council's (NYC) commitment to contribute towards building the nation's knowledge of youths in Singapore. NYC makes every effort to ensure the accuracy of the information contained within this publication, but makes no claims, promises, or guarantees about the accuracy, completeness or adequacy of the information contained in or linked to the chapters.

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At NYC, we believe in a world where young people are respected and heard, and have the ability to influence and make a difference to the world. Together with our partners, we develop future-ready youth who are committed to Singapore by instilling in them a heart for service, resilience and an enterprising spirit.



Thriving youth who are Future-Ready and Committed to Singapore

Our Mission

Create Opportunities for All Youths in Singapore

To be heard, to be empowered and to be the change

Our Background

NYC was set up by the Singapore Government on 1 November 1989 as the national co-ordinating body for youth affairs in Singapore and the focal point of international youth affairs.

On 1 January 2015, NYC began its operations as an autonomous agency under the Ministry of Culture, Community and Youth (MCCY) and housed two key institutions: Outward Bound Singapore (OBS) and Youth Corps Singapore (YCS). Together, the agency drives youth development and broadens outreach to young Singaporeans and youth sector organisations.

Mr Edwin Tong, Minister for Culture, Community and Youth and Second Minister for Law is the Chairperson of the 16th Council. The Council comprises members from diverse backgrounds such as the youth, media, arts, sports, corporate and government sectors.







Content Page

Page 04



Preface

Page 05



Social Cohesion

Page 06



Subjective Wellbeing

Page 08



Physical & Mental Wellbeing

Page 15



Economic Wellbeing

Page 16



About the National Youth Survey

Page 22



Subjective Wellbeing & Intergenerational Mobility of Youths in Singapore

Page 28



Adulting Well: Impact of Youth-to-Adulthood Transitions on Life Satisfaction

Page 48

Preface

The National Youth Survey (NYS) studies the major concerns and issues of schooling and working youths in Singapore. It is a time-series survey that tracks and provides updated analyses of national youth statistics and outcomes to inform policy and practice. To date, NYS has been conducted in 2002, 2005, 2010, 2013, 2016, and 2019. Findings and analyses from each cycle of NYS are subsequently published as YOUTH.sg: The State of Youth in Singapore (YOUTH.sg).

This edition of YOUTH.sg consists of six separate issues covering the topics of



Values & Attitudes



Education & Employment



Support



Social Cohesion



Wellbeing



COVID-19 (Special Edition)

Each issue features youth statistics and insights from the NYS. Complementing the NYS insights are relevant studies and in-depth analyses by practitioners in youth research and development to provide readers with an overview of the state of youth in Singapore.

Contributors comprise NYS' academic collaborators (A/Ps Ho Kong Chong, Ho Kong Weng, and Irene Ng), NYC, Youth STEPS' academic collaborators (Dr Chew Han Ei, A/P Vincent Chua, and Dr Alex Tan) and other contributors (Ministry of Manpower, National Arts Council, National Volunteer & Philanthropy Centre, and Sport Singapore). Together, the YOUTH.sg intends to shed light on and explore specific emergent trends and issues of youths.

This publication has been put together by the Research team at the National Youth Council.

Notation

NA Not Available

Notes

Percentages may not total up to 100% due to rounding. Survey figures may vary slightly due to sample weighting.



An individual's wellbeing can be said to be shaped by where they live, what they have and who they know. As a multifaceted concept, there are three broad contributors toward wellbeing; a person's quality of life, their economic circumstances, and their connections to the groups around them (Organisation for Economic Co-operation and Development [OECD], 2020). These broad categories can be further sub-divided into 11 dimensions. Quality of life indicators include subjective wellbeing and health. Material conditions comprise income and wealth, work and job quality, and housing. Lastly, dimensions of connections include one's social ties and work-life balance.





Wellbeing

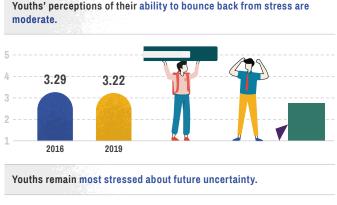
In a world of change, our youths are constantly navigating opportunities and upheavals in their journey. As they make strides towards a future where they flourish and thrive, their current wellbeing is shaped by the uncertain environment which they are living in (Wyn et al., 2015). Self-determination and resilience are critical in helping youths rise above disruptions beyond their control.

Global events such as economic downturns, pandemics, and political instability have a far-reaching impact on individuals who are at the cusp of making major life decisions and planning for their futures. Such events can create new possibilities or cause current opportunities to shrink and become volatile, thereby making pathways and achievements precarious (Schoon & Mortimer, 2017; Settersten et al., 2020).

These disruptions and disappointments may threaten youths' immediate welfare in the short-term and make it difficult for them to visualise their futures in the long run. In 2019, young people continue to be most stressed by future uncertainty and hold only modest evaluations about the sufficiency of opportunities in Singapore to achieve their aspirations.

Yet our youths have shown remarkable resilience and adaptability. Subjective wellbeing remains relatively positive, with youths reporting positive evaluations of their lives alongside continued hope and confidence in their future. For parents, educators and mentors, this emphasises the importance of supportive environments and the continuous task of uplifting and developing youths for the future.

Overall, youths' wellbeing remains positive. Happiness 4.92 2013 5.07 2016 4.79 2019 Life satisfaction 2013 6.79 2016 6.89 2019 6.44 8 Confidence in future 6.49 2013 6.54 2016 6.12 2019





Part A: Subjective Wellbeing

Section A1:
Happiness, Life Satisfaction
& Confidence In Future

Youths' happiness, life satisfaction, and future confidence have remained positive despite a gradual decline over time (**Table A1**). Compared to younger youths, older youths appear to hold a more positive evaluation of their lives and the future (**Table A2**).



Question: Taking all things together, how happy would you say you are? (Based on a 7-pt scale, where 7="very happy" & 1="very unhappy".)

Question: Having considered all things in life, how satisfied are you with your life as a whole these days? (Based on a 10-pt scale, where 10="satisfied" & 1="dissatisfied".)

Question: How confident do you feel about your future as a whole? (Based on a 10-pt scale, where 10="very confident" & 1="not confident at all".)

TABLE A1: MEAN RATINGS OF YOUTHS' HAPPINESS, LIFE SATISFACTION & CONFIDENCE OVER TIME

(with standard deviations in parentheses)

	2010	2013	2016	2019
	(n=1,268)	(n=2,843)	(n=3,531)	(n=3,392)
Happiness (7-pt scale)	5.45 (1.04)	4.92 (1.18)	5.07 (1.17)	4.79 (1.24)
Life satisfaction (10-pt scale)	7.64 (1.52)	6.79 (1.88)	6.89 (1.86)	6.44 (1.93)
Confidence in future (10-pt scale)	7.57 (1.56)	6.49 (1.99)	6.54 (2.00)	6.12 (1.97)

TABLE A2: MEAN RATINGS OF YOUTHS' HAPPINESS, LIFE SATISFACTION & CONFIDENCE BY AGE (with standard deviations in parentheses)

	15-19	20-24	25-29	30-34	Overall
	(n=716)	(n=804)	(n=926)	(n=946)	(n=3,392)
Happiness (7-pt scale)	4.71 (1.31)	4.66 (1.28)	4.82 (1.21)	4.93 (1.15)	4.79 (1.24)
Life satisfaction (10-pt scale)	6.21 (2.05)	6.23 (2.01)	6.55 (1.89)	6.70 (1.76)	6.44 (1.93)
Confidence in future (10-pt scale)	5.80 (2.07)	5.84 (2.01)	6.30 (1.96)	6.42 (1.82)	6.12 (1.97)

Section A2: Self-Esteem & Self-Efficacy

Self-esteem is understood as the evaluation of personal worth (Baumeister et al., 2003), while self-efficacy is defined as the beliefs about one's ability to exercise control over events in one's life (Bandura, 1990). Taken together, self-esteem and self-efficacy shape a person's agentic behaviour (e.g., goal setting and attainment, taking initiatives) and positive coping or recovery in response to setbacks.

Over time, youths report high levels of self-efficacy and comparatively lower self-esteem (Tables A3 and A5).

Question: To what extent do you agree with the following statements? (Based on a 5-pt scale, where 5="strongly agree", 3="neither agree nor disagree", & 1="strongly disagree".)

TABLE A3: MEAN RATINGS OF YOUTHS' SELF-ESTEEM OVER TIME

(with standard deviations in parentheses)

	2010	2013	2016	2019
	(n=1,268)	(n=2,843)	(n=3,531)	(n=3,392)
Self-Esteem (Aggregate)	3.79 (0.54)	3.64 (0.67)	3.63 (0.66)	3.59 (0.70)
On the whole, I am satisfied with myself	4.12 (0.61)	3.86 (0.86)	3.85 (0.85)	3.74 (0.90)
I feel that I have a number of good qualities	4.05 (0.59)	4.01 (0.75)	4.00 (0.71)	3.95 (0.75)
I feel I do not have much to be proud of ^a	2.80 (1.01)	2.95 (1.07)	2.96 (1.05)	2.93 (1.08)

Note

a. This item was reverse coded in the aggregate score.



■ TABLE A4: MEAN RATINGS OF YOUTHS' SELF-ESTEEM BY AGE

(with standard deviations in parentheses)

	15-19	20-24	25-29	30-34	Overall
	(n=716)	(n=804)	(n=926)	(n=946)	(n=3,392)
Self-Esteem (Aggregate)	3.47 (0.76)	3.53 (0.74)	3.63 (0.65)	3.68 (0.64)	3.59 (0.70)
On the whole, I am satisfied with myself	3.61 (1.00)	3.67 (0.97)	3.80 (0.82)	3.83 (0.80)	3.74 (0.90)
I feel that I have a number of good qualities	3.89 (0.84)	3.92 (0.76)	3.97 (0.71)	4.00 (0.69)	3.95 (0.75)
I feel I do not have much to be proud of ^a	3.09 (1.12)	3.01 (1.10)	2.88 (1.05)	2.80 (1.04)	2.93 (1.08)

Note

■ TABLE A5: MEAN RATINGS OF YOUTHS' SELF-EFFICACY OVER TIME

(with standard deviations in parentheses)

	2010	2013	2016	2019
	(n=1,268)	(n=2,843)	(n=3,531)	(n=3,392)
Self-Efficacy (Aggregate)	4.38 (0.51)	4.41 (0.53)	4.42 (0.52)	4.30 (0.54)
It is important to think before you act	4.38 (0.60)	4.50 (0.61)	4.48 (0.59)	4.41 (0.63)
If I work harder, I will achieve better results	4.42 (0.63)	4.28 (0.78)	4.34 (0.74)	4.19 (0.78)
I am responsible for what happens to me	4.35 (0.64)	4.45 (0.62)	4.44 (0.61)	4.28 (0.64)

- TABLE A6: MEAN RATINGS OF YOUTHS' SELF-EFFICACY BY AGE

	15-19	20-24	25-29	30-34	Overall
	(n=716)	(n=804)	(n=926)	(n=946)	(n=3,392)
Self-Efficacy (Aggregate)	4.37 (0.52)	4.36 (0.53)	4.26 (0.55)	4.22 (0.55)	4.30 (0.54)
It is important to think before you act	4.46 (0.62)	4.47 (0.60)	4.40 (0.62)	4.34 (0.65)	4.41 (0.63)
If I work harder, I will achieve better results	4.36 (0.76)	4.27 (0.75)	4.10 (0.79)	4.08 (0.76)	4.19 (0.78)
I am responsible for what happens to me	4.28 (0.63)	4.35 (0.63)	4.27 (0.66)	4.23 (0.64)	4.28 (0.64)

a. This item was reverse coded in the aggregate score.

Section A3: Life Stressors

Over the years, future uncertainty has risen to be the top stressor for youths (**Table A7**). Concerns over the future are compounded by life stage-related worries, with greater worries about studies and emerging adult responsibilities observed among younger youths. Comparatively, older youths are more preoccupied by work and finances (**Table A8**).

Question: To what extent do you find the following areas of your life to be stressful? (Based on a 5-pt scale, where 5="extremely stressful", 3="moderately stressful", & 1="not at all stressful".)

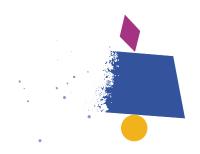
■ TABLE A7: MEAN RATINGS OF YOUTHS' LIFE STRESSORS OVER TIME

(with standard deviations in parentheses)

	2010	2013	2016	2019
	(n=1,259)	(n=2,791)	(n=3,493)	(n=3,354)
Future uncertainty	2.37 (1.13)	3.46 (1.15)	3.46 (1.17)	3.33 (1.15)
Emerging adult responsibility	2.25 (1.15)	3.22 (1.12)	3.30 (1.15)	3.25 (1.12)
Finances	2.28 (1.10)	3.23 (1.27)	3.07 (1.20)	3.21 (1.18)
Studies	2.81 (1.10)	3.49 (1.16)	3.36 (1.22)	3.16 (1.22)
Health of family member	2.14 (1.14)	3.04 (1.18)	3.13 (1.21)	3.00 (1.18)
Work	2.52 (1.04)	3.10 (1.09)	2.99 (1.06)	3.00 (1.05)
Personal health	1.88 (1.04)	2.68 (1.18)	2.74 (1.22)	2.62 (1.13)
Family relationships	1.82 (0.93)	2.45 (1.26)	2.26 (1.10)	2.40 (1.15)
Friendships (including peer pressure, romantic relationships)	1.80 (0.90)	2.40 (1.16)	2.20 (1.03)	2.38 (1.11)

Note

The upper-bound survey population figures are reflected in this table.



- TABLE A8: MEAN RATINGS OF YOUTHS' LIFE STRESSORS BY AGE

(with standard deviations in parentheses)

	15-19	20-24	25-29	30-34	Overall
	(n=705)	(n=798)	(n=915)	(n=940)	(n=3,354)
Future uncertainty	3.41 (1.22)	3.61 (1.15)	3.27 (1.11)	3.09 (1.09)	3.33 (1.15)
Emerging adult responsibility	3.20 (1.13)	3.59 (1.11)	3.22 (1.10)	3.02 (1.07)	3.25 (1.12)
Finances	3.10 (1.21)	3.42 (1.18)	3.22 (1.16)	3.10 (1.16)	3.21 (1.18)
Studies	3.70 (1.17)	3.46 (1.10)	2.76 (1.13)	2.65 (1.14)	3.16 (1.22)
Health of family member	3.03 (1.22)	3.10 (1.19)	2.93 (1.16)	2.98 (1.16)	3.00 (1.18)
Work	2.77 (1.09)	2.95 (1.09)	3.09 (1.01)	3.08 (1.02)	3.00 (1.05)
Personal health	2.62 (1.22)	2.66 (1.13)	2.59 (1.07)	2.63 (1.11)	2.62 (1.13)
Family relationships	2.41 (1.22)	2.44 (1.19)	2.36 (1.13)	2.39 (1.10)	2.40 (1.15)
Friendships (including peer pressure, romantic relationships)	2.70 (1.17)	2.53 (1.09)	2.25 (1.07)	2.13 (1.04)	2.38 (1.11)

Note

The upper-bound survey population figures are reflected in this table.



Section A4: Resilience

The ability to bounce back or recover from stress or adversity (Smith et al., 2008) is critical for individuals to thrive in the face of challenges brought forth by an increasingly tumultuous environment. Overall, youths continue to report themselves to be moderately resilient (**Table A9**).

Question: To what extent do you agree with these statements?

(Based on a 5-pt scale, where 5="strongly agree", 3="neither agree nor disagree", & 1="strongly disagree".)

- TABLE A9: MEAN RATINGS OF YOUTHS' RESILIENCE OVER TIME

(with standard deviations in parentheses)

	2016	2019
	(n=3,531)	(n=3,392)
Resilience (Aggregate)	3.29 (0.60)	3.22 (0.63)
I tend to bounce back quickly after hard times	3.73 (0.82)	3.46 (0.84)
I have a hard time making it through stressful events ^a	3.10 (0.96)	2.96 (0.94)
It does not take me long to recover from a stressful event	3.56 (0.86)	3.39 (0.88)
It is hard for me to snap back when something bad happens ^a	2.92 (0.95)	2.93 (0.93)
I usually come through difficult times with little trouble	3.35 (0.85)	3.28 (0.86)
I tend to take a long time to get over setbacks in my life ^a	2.89 (0.95)	2.92 (0.96)

Note

a. These items were reverse coded in the aggregate score.

- TABLE A10: MEAN RATINGS OF YOUTHS' RESILIENCE BY AGE

(with standard deviations in parentheses)

	15-19	20-24	25-29	30-34	Overall
	(n=716)	(n=804)	(n=926)	(n=946)	(n=3,392)
Resilience (Aggregate)	3.17 (0.64)	3.16 (0.66)	3.23 (0.61)	3.31 (0.60)	3.22 (0.63)
I tend to bounce back quickly after hard times	3.46 (0.89)	3.39 (0.87)	3.46 (0.83)	3.51 (0.79)	3.46 (0.84)
I have a hard time making it through stressful events ^a	3.14 (0.96)	3.02 (0.95)	2.93 (0.91)	2.82 (0.92)	2.96 (0.94)
It does not take me long to recover from a stressful event	3.41 (0.94)	3.32 (0.90)	3.38 (0.88)	3.44 (0.82)	3.39 (0.88)
It is hard for me to snap back when something bad happens ^a	2.98 (0.97)	2.99 (0.96)	2.95 (0.91)	2.83 (0.90)	2.93 (0.93)
I usually come through difficult times with little trouble	3.23 (0.90)	3.22 (0.87)	3.30 (0.84)	3.37 (0.81)	3.28 (0.86)
I tend to take a long time to get over setbacks in my life ^a	2.99 (0.97)	2.97 (0.99)	2.89 (0.96)	2.85 (0.91)	2.92 (0.96)

Note

a. These items were reverse coded in the aggregated score.



Part B: Physical & Mental Wellbeing

Section B1: Perceived Physical & Mental Health Transitions during emerging adulthood can affect a person's physical and mental welfare (Arnett et al., 2014; Barlett et al., 2020). Therefore, attention needs to be paid to how youths are faring both physically and mentally. Perceptions of general health have stayed relatively modest between 2013 and 2016 (Table B1) with reported physical and mental health continuing to be moderate in 2019. Younger youths report higher levels of physical health yet lower levels of mental health (Table B2).

Question: All in all, how would you describe your state of health these days? (Based on a 5-pt scale, where 5="very good", 3="fair", & 1="very poor".)

TABLE B1: MEAN RATINGS OF YOUTHS' PERCEIVED GENERAL HEALTH OVER TIME

(with standard deviations in parentheses)

	2010	2013	2016
	(n=1,268)	(n=2,843)	(n=3,531)
Perceived general health	4.12 (0.69)	3.70 (0.79)	3.75 (0.81)

Question: All in all, how would you describe your state of physical health these days? (Based on a 5-pt scale, where 5="very good", 3="fair", & 1="very poor".)

Question: All in all, how would you describe your state of mental health these days? (Based on a 5-pt scale, where 5="very good", 3="fair", & 1="very poor".)

TABLE B2: MEAN RATINGS OF YOUTHS' PERCEIVED PHYSICAL & MENTAL HEALTH BY AGE

(with standard deviations in parentheses)

	15-19	20-24	25-29	30-34	Overall
	(n=716)	(n=804)	(n=926)	(n=946)	(n=3,392)
Perceived physical health	3.60 (0.85)	3.48 (0.87)	3.52 (0.81)	3.48 (0.79)	3.52 (0.83)
Perceived mental health	3.43 (1.01)	3.38 (0.98)	3.50 (0.88)	3.59 (0.82)	3.48 (0.92)

Note

This is a new question introduced in NYS 2019, replacing the existing question on perceived general health.

Part C: Economic Wellbeing

Section C1: Perceived Opportunities Neither overly optimistic nor pessimistic, youths hold realistic evaluations of their prospects. Since 2013, youths report modest expectations of the opportunities available to them in Singapore to achieve their aspirations (Table C1). Over time, they continue to be slightly more optimistic about their career opportunities.

Question: To what extent do you agree with the following statements? (Based on a 5-pt scale, where 5="strongly agree", 3="neither agree nor disagree", & 1="strongly disagree".)

TABLE C1: MEAN RATINGS OF YOUTHS' PERCEIVED OPPORTUNITIES OVER TIME

(with standard deviations in parentheses)

	2010 ^a	2013	2016	2019
	(n=1,268)	(n=2,843)	(n=3,531)	(n=3,392)
There are enough opportunities in Singapore for me to achieve my personal aspirations in life	3.73 (0.76)	3.29 (1.01)	3.28 (1.03)	3.28 (0.93)
There are enough opportunities in Singapore for me to have a good career ^b	NA	NA	3.37 (0.99)	3.39 (0.91)

Notes

TABLE C2: MEAN RATINGS OF YOUTHS' PERCEIVED OPPORTUNITIES BY AGE

	15-19	20-24	25-29	30-34	Overall
	(n=716)	(n=804)	(n=926)	(n=946)	(n=3,392)
There are enough opportunities in Singapore for me to achieve my personal aspirations in life	3.31 (0.92)	3.26 (0.96)	3.21 (0.93)	3.32 (0.90)	3.28 (0.93)
There are enough opportunities in Singapore for me to have a good career	3.45 (0.87)	3.40 (0.94)	3.33 (0.91)	3.38 (0.92)	3.39 (0.91)

a. "Perceived opportunities to achieve aspirations" was recoded as a 5-pt scale for NYS 2010, which adopted a 6-pt scale.

b. Item is new to NYS 2016.

Section C2: Income & Rewards

In recent years, youths have expressed more egalitarian attitudes. However, while youths have gradually shown greater inclinations towards income equality in the past decade, they remain accepting of income differences based on personal effort (Table C3). Younger youths tend to believe more strongly in equal incomes compared to older youths (Table C4).

Question: To what extent do you agree with the following statement regarding incomes and rewards? (Based on a 10-pt scale, where 10="we need larger income differences as incentives for individual effort" & 1="incomes should be made more equal".)

■ TABLE C3: MEAN RATINGS OF YOUTHS' ATTITUDES TOWARDS INCOME & REWARDS OVER TIME

(with standard deviations in parentheses)

	2010	2013	2016	2019
	(n=1,268)	(n=2,843)	(n=3,531)	(n=3,392)
Income & rewards	6.20 (2.06)	5.54 (2.50)	5.09 (2.44)	5.57 (2.31)

TABLE C4: MEAN RATINGS OF YOUTHS' ATTITUDES TOWARDS INCOME & REWARDS BY AGE

	15-19	20-24	25-29	30-34	Overall
	(n=716)	(n=804)	(n=926)	(n=946)	(n=3,392)
Incomes & rewards	5.37 (2.31)	5.40 (2.26)	5.57 (2.38)	5.87 (2.24)	5.57 (2.31)



Section C3: Hard Work & Connections

Recognising the value of individual effort and perseverance, youths continue to see both hard work and connections as key to a better life. But with the pervasiveness of social networking, connections are perceived to be increasingly important for achieving success (Table C5). Older youths have a greater tendency to perceive luck and connections as crucial conditions for success (Table C6).

Question: To what extent do you agree with the following statement regarding work and connections? (Based on a 10-pt scale, where 10="hard work doesn't generally bring success - it's more a matter of luck and connections" & 1="in the long run, hard work usually brings a better life".)

TABLE C5: MEAN RATINGS OF YOUTHS' ATTITUDES TOWARDS HARD WORK & CONNECTIONS OVER TIME

(with standard deviations in parentheses)

	2013	2016	2019
	(n=2,843)	(n=3,531)	(n=3,392)
Hard work & connections	5.12 (2.60)	4.99 (2.47)	5.72 (2.44)

TABLE C6: MEAN RATINGS OF YOUTHS' ATTITUDES TOWARDS HARD WORK & CONNECTIONS BY AGE

	15-19	20-24	25-29	30-34	Overall
	(n=716)	(n=804)	(n=926)	(n=946)	(n=3,392)
Hard work & connections	5.06 (2.43)	5.59 (2.45)	5.96 (2.39)	6.08 (2.37)	5.72 (2.44)



Section C4: Allowance & Parental Income Most schooling youths receive financial support from their parents, with 7 in 10 receiving at least \$100 or more in monthly allowances (Table C7).

Question: What is the average monthly spending money you receive from your family or guardian? (This does not include school or tuition fees or your own salary.)

■ TABLE C7: SCHOOLING YOUTHS' MONTHLY ALLOWANCES OVER TIME

	2010	2013	2016	2019
	(n=425)	(n=1,057)	(n=1,206)	(n=1,116)
Above S\$300	17%	17%	18%	20%
S\$201 - S\$300	21%	18%	19%	18%
S\$100 - S\$200	35%	32%	31%	32%
Below S\$100	23%	22%	22%	16%
I do not receive money	4%	11%	10%	13%

Note

Respondents who declined giving a response were excluded from the reported figures. Response was mandatory for NYS 2013, 2016 and 2019, which may account for some fluctuation in the overall trend.



Question: What is your parents' combined monthly income (from all sources)?

■ TABLE C8: PARENTS' COMBINED INCOME OVER TIME

	2010 ^a	2013 ^a	2016	2019
	(n=813)	(n=2,025)	(n=3,341)	(n=3,140)
S\$5,000 & above	22%	25%	31%	38%
S\$3,000 - S\$4,999	20%	18%	19%	19%
S\$2,000 - S\$2,999	17%	15%	16%	16%
S\$1,500 - S\$1,999	13%	12%	10%	8%
S\$1,000 - S\$1,499	8%	11%	10%	6%
S\$500 - S\$999	4%	9%	5%	4%
Below \$500	16%	10%	9%	10%

Notes

Respondents who declined giving a response were excluded from the reported figures.

a. NYS 2010 and 2013 response brackets were captured differently and may not be strictly comparable.



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About the National Youth Survey

The NYS represents a milestone in Singapore's youth research with its resource-based approach that focuses on the support youths require for societal engagement (social capital) and individual development (human capital).

The National Youth Indicators Framework (NYIF) (Ho & Yip, 2003) was formulated to provide a comprehensive, systematic, and theoretically-grounded assessment of youths in Singapore. The NYIF draws from the existing research literature, policy-relevant indicators, and youth development models. It spans six domains of social and human capital. **Table I** summarises the framework.

TABLE I: NATIONAL YOUTH INDICATORS FRAMEWORK

	Social Capital (Grootaert & van Bastelaer, 2002; Putnam, 2000)	Human Capital (Organisation for Economic Co-operation and Development, 2001; World Economic Forum, 2017)
Definition	Social capital refers to the relationships within and between groups, and the shared norms and trust that govern these interactions.	Human capital refers to the skills, competencies, and attitudes of individuals, which in turn create personal, social, and economic wellbeing.
Domains	Social supportSocial participationValues & attitudes	Education Employment Wellbeing
Focus	The power of relationships	The human potential of young people

NYS 2019 adopted a random (i.e., probability-based) sampling method to ensure responses are representative of the resident youth population aged 15 to 34 years old.

The fieldwork period spanned from September to November 2019. A total of 3,392 youths were successfully surveyed, of which 227 were surveyed at their households. Demographic proportions of NYS respondents adhered closely to the youth population.

Table II presents the profile of respondents from NYS 2002, 2005, 2010, 2013, 2016, and 2019. Figures referenced in all tables in the publication (with the exception of figures from NYS 2002^a) were weighted according to interlocking matrices of age, gender, and race of the respective youth populations.



Note

a. Figures from NYS 2002 were not weighted due to the non-standard age bands used.

■ TABLE II: PROFILE OF NYS RESPONDENTS

		NYS 2002 (n=1,504)	NYS 2005 (n=1,504)	NYS 2010 (n=1,268)	NYS 2013 (n=2,843)	NYS 2016 (n=3,531)	NYS 2019 (n=3,392)	Latest Youth Population ^a
	15-19	NYS 2002	33%	24%	24%	23%	21%	21%
	20-24	utilised	31%	23%	25%	25%	24%	24%
Age	25-29	non-standard age bands	36%	25%	24%	25%	27%	27%
	30-34 ^b	NA	NA	28%	28%	27%	28%	28%
Gender	Male	50%	50%	49%	49%	49%	50%	50%
Gender	Female	50%	50%	51%	51%	51%	50%	50%
	Chinese	77%	75%	72%	72%	72%	72%	72%
Page	Malay	15%	15%	15%	16%	16%	17%	17%
Race	Indian	7%	9%	10%	10%	9%	9%	9%
	Others	1%	1%	4%	3%	3%	3%	3%
Notionality	Singaporean	93%	90%	86%	91%	94%	93%	86%
Nationality	Permanent Resident	7%	10%	14%	10%	6%	7%	14%
	Single	83%	85%	74%	74%	74%	74%	74%
Marital Status	Married	17%	14%	25%	25%	26%	25%	25%
	Divorced/Separated/Widowed	0%	1%	1%	1%	1%	1%	1%
	Buddhism	35%	32%	36%	25%	24%	22%	28%
	Islam	16%	17%	18%	19%	20%	21%	18%
	Christianity	16%	16%	15%	19%	19%	20%	18%
Religion	Hinduism	5%	6%	6%	6%	5%	5%	5%
	Taoism/Traditional Chinese Beliefs	6%	6%	7%	7%	6%	5%	7%
	Other Religions	2%	1%	3%	1%	0%	1%	0%
	No Religion	21%	21%	15%	23%	25%	27%	23%
	HDB 1-2 rooms	5%	3%	5%	3%	5%	4%	3%
	HDB 3 rooms	26%	24%	24%	14%	14%	14%	12%
	HDB 4 rooms	33%	43%	34%	37%	38%	35%	35%
Dwelling	HDB 5 rooms, executive, & above	24%	19%	26%	31%	29%	30%	29%
	Private flat & condominium	12%	11%	3%	10%	9%	12%	13%
	Private house & bungalow	12%	11%	9%	6%	4%	4%	6%
	Others	0%	NA	NA	0%	0%	1%	0%

Note

a. Latest youth population refers to the most recent available data from the Department of Statistics (DOS) at the time of fieldwork – age, gender, race, and dwelling (DOS, 2019a) as well as nationality (DOS, 2019b), marital status, and religion (DOS, 2016).

b. The 30-34 age band was included from NYS 2010.

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Research Takeaways

SUBJECTIVE WELLBEING & INTERGENERATIONAL MOBILITY OF YOUTHS IN SINGAPORE

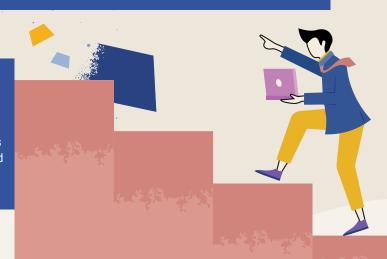
BY A/P HO KONG WENG & SOLOMON SOH

Economic prosperity and growth in human capital are important ingredients for the wellbeing of youths in Singapore. However, as levels of subjective wellbeing decline amidst economic growth in Singapore, these youth trends signal the need to turn towards non-economic contributors. Holding hopes and expectations for a future of flourishing, the aspirations, perceptions, and supportive relationships of youths mediate how they interact with the larger environment and affect their current state of wellbeing.



Building on prior analyses on the National Youth Survey (NYS), A/P Ho Kong Weng and Solomon Soh found that the subjective wellbeing of youths in Singapore remains strongly built upon the foundations of family, community, and national relationship stocks, non-zero-sum life goals, and perceived opportunity and social mobility. A closer examination of intergenerational income mobility suggests the existence of an equality of opportunity among youths in the broad middle income group.

As new complexities challenge the subjective wellbeing of youths in Singapore, this chapter raises two key points; (i) Increasing competition between career, gender roles, and familial aspirations will confer disadvantages on the intergenerational transmission of crucial family resources; and (ii) Diminishing growth to Singapore's mature economy will require shifts towards upskilling, reskilling and experiential education to facilitate upward mobility for segments of young people.



ADULTING WELL: IMPACT OF YOUTH-TO-ADULTHOOD TRANSITIONS ON LIFE SATISFACTION BY DR CHEW HAN EI, A/P VINCENT CHUA, DR ALEX TAN & YVONNE YAP

As youths negotiate aspirations and realities associated with emerging adulthood, life course transitions and the broader socio-economic conditions can impact their levels of life satisfaction. The panel approach to analysing longitudinal data from the Youth Study in Transitions and Evolving Pathways in Singapore (Youth STEPS) uncovered three pathways of mobility as salient predictors of life satisfaction: (1) moving through and finishing school, (2) moving into the world of work, and (3) transiting into marriage.





Full-time employed youths derived greater satisfaction from their jobs than part-timers. Although full-time work can be stressful, it nonetheless adds to overall happiness in life. Part-time employment, while less stressful, turned out to be less satisfying and offered less fulfilment, suggesting that the gig economy and its short-term contracts may be less effective for sustaining or bolstering life satisfaction among young adults than secure jobs¹.

The overall declining pattern of life satisfaction over time among youths suggests that prevailing conditions in the external macro environment (such as a shift to economic uncertainty, the retreat from globalisation, and the growth of nationalist and populist movements) may have a role to play. Local factors that attenuate the downward pull of these macro conditions include job creation, quality of life, racial harmony, and education.

¹At the time of writing, Singapore had already rolled out an unprecedented four Budgets – Unity, Solidarity, Resilience, and Fortitude – to create jobs and support workers. In these unprecedented times, we are not suggesting that part-time employment should be shunned. Any form of employment is better than unemployment in this difficult period. Nevertheless, the research findings clearly point to the value of full-time employment for the job and life satisfaction of youths in Singapore.

Subjective Wellbeing & Intergenerational Mobility of Youths in Singapore



Introduction

Singapore has been enjoying persistently high real growth rates for the past 6 decades. On average, real per capita Gross Domestic Product (GDP) has grown from S\$5,603 in 1961 to S\$88,991 in 2019¹ with an average annual real per capita growth rate of 4.88%. The mean number of years of schooling for residents aged 25 and over has increased from 3.1 (Barro & Lee, 2001) in 1960 to 11.2 in 2019 while the life expectancy at birth for residents has also increased from 62.9 years in 1960 to 83.6 in 2019 (Department of Statistics, 2019). Although these figures reflect trends of the broader population, we can infer that the growth in human capital over the years have brought about better health and higher educational achievement of the youths in Singapore.

While economic wellbeing continues to improve in Singapore in the long-term, the subjective wellbeing of youths might be affected by short-run fluctuations in economic business cycles, diminishing growth opportunities and economic shocks, as well as other non-economic variables. Economic prosperity does contribute to the wellbeing of youths in Singapore; however, we are interested to find out the non-economic contributors to the wellbeing of youths, especially during the current pandemic when economic conditions and indicators have taken a dip, at least for the time being, and perhaps for the uncertain future².

This chapter will investigate the roles of non-economic variables such as relationship stocks, life aspirations, and perceived opportunities in influencing the subjective wellbeing of youths in Singapore, using data from the National Youth Survey (NYS) 2019.

Methodological **Approach**

In our simple theoretical framework (**Figure 1**), happiness and life satisfaction can be produced using relationship stocks,and expectations about the future, either in terms of life goals or perceived

opportunities for the future, will trigger personal investment, both monetary investment and time investment, to maximise the happiness and life satisfaction of individuals. How about the roles of the community and the government in this production process? Yes, they do play a part via facilitating individuals' investment of subjective wellbeing, encouraging altruism, cultivating a sense of belonging, and building various institutions that enable the accumulation of the human capital of the individuals and social capital of the nation.

We will focus on explaining the variations of subjective wellbeing across characteristics and groups of youth using NYS 2019. To prepare for the analyses, we construct indices on relationship stocks (family support, family environment, national capital), life goals (family-oriented life goals, altruism-oriented life goals, and career-oriented life goals), and competencies (innovation competency, emotion competency, diversity competency, and leadership competency).

It is crucial to control for parental background when we examine the wellbeing of youths, as economic and social resources of parents affect the environment and opportunities faced by the youths, which in turn have an influence on their subjective wellbeing (Plenty & Mood, 2016). Ho (2015), using data from NYS 2013, has reported that parental income matters in the wellbeing of youths and Ho (2018), using NYS 2016, has found that household income step, an indicator of one's perceived household's position on the social-economic ladder, which would be that of one's parents for unmarried youths, is robustly a significant contributor to subjective wellbeing across many model specifications. Demographic variables such as age and gender, along with household income step will be controlled for in the analyses within this chapter.

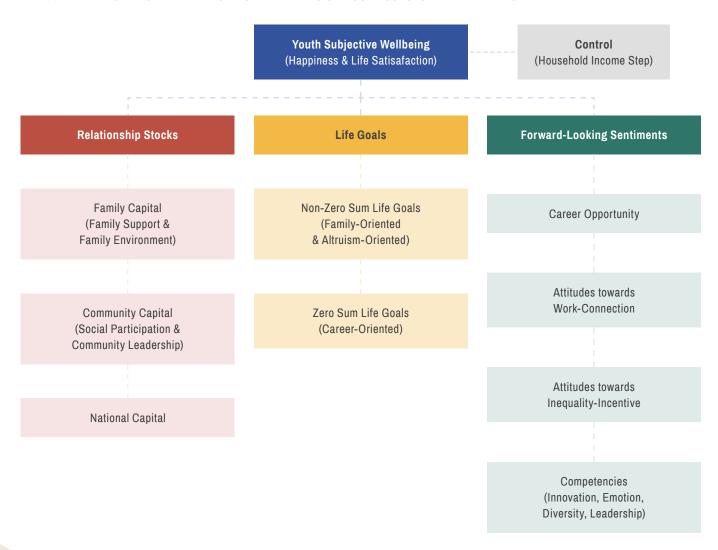
¹This is computed by the author based on data from the Singapore Department of Statistics, www.singstat.gov.sg. The deflator is Consumer Price Index (CPI), base year 2015.

²The National Youth Survey 2019 was conducted before COVID-19 hit Singapore. Economic wellbeing of youths in Singapore might take a dip given the pandemic affecting many countries, including the small and open economy of Singapore.

The remaining of the chapter is as follows. We will first discuss the time trends of youth subjective wellbeing. Next, we will document the influence of relationships stocks on subjective wellbeing with a focus on the importance of socioeconomic and demographic background variables, including those of their parents when available. This is followed by an examination of how life goals affect subjective

wellbeing differently. We will then discuss the important roles of forward-looking variables such as perceived opportunities and attitude toward inequality, along with quantile regressions on intergenerational transmission of income, highlighting the continued significance of social mobility in Singapore. The chapter will close with opportunities for further research and concluding remarks.

FIGURE 1: THEORETICAL FRAMEWORK OF VARIABLES ON YOUTH SUBJECTIVE WELLBEING



Trends in Subjective Wellbeing

There are two indicators chosen to reflect subjective wellbeing in NYS, namely happiness and life satisfaction: the former is emotive in nature, a form of experienced wellbeing, while the latter is cognitive in nature, a form of evaluative wellbeing. The two indicators may measure slightly different aspects of subjective wellbeing; however, they do overlap to a large extent. We will treat them as separate dependent variables in our analyses and compare the significance of the determinants of each of them accordingly.

How have the two measures of subjective wellbeing of youths evolved over the years in Singapore? **Table 1** shows that, taking all things together, youths' self-reported level of happiness was lowest at 4.78 out of a 7-point Likert scale in 2019; and having considered all things in life, youths' self-reported level of life satisfaction registered the lowest of 6.44 out of a 10-point Likert scale in 2019 among the four waves of NYS studies.

Although economic conditions were more favorable in 2019, as compared to 2016, both self-reported happiness and life satisfaction have decreased, suggesting that current economic prosperity may not be sufficient to explain the changes in subjective wellbeing. The recent trends in happiness and life satisfaction of NYS are similar to that

of Singapore's Happiness Index published by the World Happiness Report; the Index documented an increase for Singapore from 6.55 in 2013 to 6.74 in 2016 followed by a decrease to 6.26 in 2019. The spike in subjective wellbeing in 2016 might have coincided with the resounding win by the ruling party in 2015 elections compared to the 2011 losses in popular vote by the same ruling party (Singh, 2016). Furthermore, other 2016 events that could have uplifted the sense of wellbeing included Joseph Schooling winning Singapore's first Olympic gold medal, Yip Pin Xiu winning two gold medals and Theresa Goh winning a bronze medal at the 2016 Summer Paralympics, and the positive sentiments lasting since the celebration of SG50. Removing the spike in 2016, the levels of youth wellbeing seemed to be on a slight downward trend, deserving more investigations.

Interestingly, the slight downward trend of subjective wellbeing coincides with a similar downward trend in the self-reported confidence about the future, from a high score of 7.58 out of a 10-point Likert scale in 2010 to 6.11 in 2019. This observed decline in subjective wellbeing and future confidence may be related to rapid structural changes, uncertainties, and competition in the global economy impacting Singapore, a small and open economy-society.

TABLE 1: MEAN SCORES OF SUBJECTIVE WELLBEING OVER TIME

	2010	2013	2016	2019
Happiness	5.45	4.92	5.07	4.78
Life satisfaction	7.64	6.79	6.89	6.44

Relationship Stocks

Embedded within diverse social units, the relationship stocks of youth in Singapore reflect their ties with their family and the larger environment which influences their subjective wellbeing.

Based on a life perspective, Lansford (2018) posited that support and care from parents through infancy to early adulthood will set the stage for trusting relationships and wellbeing. Peers and romantic partners will also become important influencers of wellbeing during adolescence and early adulthood. Together, these supportive

relationships follow youths into parenthood where they will form similar relationships with their children and maintain the cycle of wellbeing for many generations to come.

In this paper, we are taking an intergenerational approach to understand the wellbeing of youths, in which parental and family influences matter. In a parsimonious manner, we take family environment and family support as proxies for family capital stocks.

TABLE 2: CONSTRUCTED INDICES OF RELATIONSHIP STOCKS

	Family	Capital	Commun	Community Capital		
Index	Family Support Index	Family Environment Index	Social Participation Index	Community Leadership Index	National Capital Index	
Cronbach's Alpha	0.7944	0.8388	-	-	0.8634	
	We are willing to help each other when something needs to be done	We are able to make decisions about how to solve problems	Participation in any social groups in the past 12 months	Held leadership positions in any social groups in the past 12 months	I have a part to play in developing Singapore for the benefit of current and future generations	
	No matter what happens, I know I'll be loved and accepted	We confide in each other			I will do whatever I can to support Singapore in times of crisis	
Variables	I feel appreciated for who I am	We express our feelings to each other			I have a sense of belonging to Singapore	
		We avoid discussing our fears and concerns with family members ^a	a)	
		We cannot talk to each other about feeling sada	2	R		
		We don't get along well with each other ^a				
Note a. This item was reverse	coded in the Index.			S		

FAMILY CAPITAL

A conceptual model of family capital, introduced by Waithaka (2014), explains an intergenerational transfer of statuses, where the family capital is a relationship stock of resources in multiple dimensions: economic wealth of the family, social networks and support of the family, and cultural knowledge, habits, beliefs, and values of the family. Schnettler et al. (2015) further distinguishes such resources into tangible and intangible resources, providing economic and social support respectively, and in turn impacting the life satisfaction and happiness of university students in Southern Chile.

Focusing on intangible resources, Offer (2013) documents that eating meals together with family members, especially with the presence of the fathers, and that leisure activities with family members were beneficial to the emotional wellbeing of adolescents. Similarly, a review by Proctor et al. (2009) shows that parental marital status, and social support from family and friends are important determinants of the wellbeing of youths.

Using NYS 2019, we construct the Family Environment Index and the Family Support Index (**Table 2**) for our regression analyses. The Family Environment Index is a new index introduced in the latest wave of NYS while the Family Support Index has been used in the earlier waves of NYS. We are using both indices to check for robustness in our analyses.

COMMUNITY CAPITAL

Community capital, defined as participation in social activities and assumption of leadership in social groups, may have an influence on the wellbeing of youths. Cicognani et al. (2015) find that the social wellbeing is enhanced directly via and mediated by a sense of community and empowerment among some 835 Italian adolescents and young adults in volunteering groups, youth groups, and religious groups. Shek and Leung (2015) argued that nurturing service leadership qualities in university students will enhance their wellbeing. Gilman (2001) and Gilman et al. (2004) have reported significant correlations of students' life satisfaction and their social interests as well as participation in structured extracurricular activities.

We will represent community capital in two dimensions: firstly, social participation in various social groups, such as sports-related groups,

arts and cultural groups, uniform groups, community groups, welfare and self-help groups, religious groups, and interest and hobby groups; secondly, leadership in these social activities. We construct the Social Participation Index and Community Leadership Index by summing and normalising the participation of the youths in these two dimensions. Initially, we expect that both the Social Participation Index and the Community Leadership Index will be positively correlated with the subjective wellbeing of the youths. However, our regression results below tell a slightly different story.

NATIONAL CAPITAL

We will continue to use the National Capital Index, constructed in Ho (2018), for the analysis of NYS 2019. The items in this index (refer to **Table 2**) convey a sense of belonging to the nation as well as a commitment to Singapore, which is a notion of investing in the national capital stock of relationships, more than a mere sense of national pride³. Upon further analyses, the National Capital Index can be driven by trust in legal institutions such as the government, armed forces, and the courts, which represents youths' trust in an infrastructure to provide protection, law and order in Singapore.

REGRESSIONS WITH RELATIONSHIPS STOCKS

We will now consider all the contributions of relationship stocks to the subjective wellbeing of youths in Singapore, with controls on the socioeconomic and demographic background variables. The happiness and life satisfaction regression results are presented in **Table 3**.

"... I wanted to contribute back to the society. So, I did volunteer work the last 3 years and I didn't realise I spent a lot of my after-work hours (there), so when I stopped and left, I realise that, oh I actually contributed so much time to this organisation."

– 27, Malay, Female, Working (NYS 2019 Focus Group Discussions)

³Tambyah et al. (2009) and Ha and Jang (2015) have used national pride as a covariate of subjective wellbeing.

TABLE 3: WELLBEING REGRESSIONS WITH RELATIONSHIP STOCKS

	Model 1 (All)	Model 2 (All)	Model 1 (All)	Model 2 (All)				
	Happiness		Life Satisfaction					
	(n=3,350)		(n=3,350)					
Male	-0.025	-0.043	-0.021	-0.040				
Non-Chinese	0.017	0.028	-0.052	-0.042				
Married	0.143**	0.141**	0.147**	0.146**				
Age	0.075**	0.070**	0.092**	0.087***				
Age^2	-0.001*	-0.001*	-0.002**	-0.002**				
Household Income Step	0.205***	0.191***	0.243***	0.229***				
Family Capital								
Family Environment	0.212***		0.205***					
Family Support		0.290***		0.282***				
Community Capital								
Social Participation	0.084***	0.077***	0.082***	0.075***				
Community Leadership	-0.047*	-0.044*	-0.056**	-0.053**				
National Capital	0.274***	0.247***	0.268***	0.242***				
R^2	0.1990	0.2102	0.2161	0.2268				
Prob > F	0.0000	0.0000	0.0000	0.0000				

Note

First, we see from **Table 3** that both happiness and life satisfaction are positively correlated with being married, the self-reported household income step, and there is an inverted U-shaped age profile in the subjective wellbeing of the youths. The results related to demographic background variables are not surprising, and are consistent with the literature and past findings of NYS reported in Ho (2018).

Both the Family Environment Index and the Family Support Index are positive and significant contributors of wellbeing. The two dimensions

of community capital have opposite influences on the subjective wellbeing of the youths; on the one hand, a higher level of participation in social groups correlate positively to both happiness and life satisfaction, and on the other hand, a higher level of involvement as leaders in these social groups is associated with a lower level of subjective wellbeing, perhaps due to extra time and effort required of the leaders, reducing their time for other activities. The National Capital Index shows a strong and positive influence on the subjective wellbeing of the youths, as in past findings from Ho (2018).

^{***} p<0.01, ** p<0.05, * p<0.1



Life goals incentivise our youths to invest their time, energy, and resources for the future, affecting their current subjective wellbeing.

Forward-looking behaviors in economic models imply that life goals set by youths will induce investment in terms of time, effort, and resources to fulfil their dreams, and an expectation of the future outcomes will likely affect their current state of subjective wellbeing. Economic success seems to be among the top pursuits of youths in Singapore, but does it correlate positively with wellbeing? How about other types of life goals? NYS 2019 allows us to construct three groups of life aspirations: family-oriented life goals, altruism-oriented life goals, and career-oriented life goals (Table 4).

Family-oriented life goals and altruism-oriented life goals are called non-zero-sum life goals as attaining them does not deprive others from attaining them while career-oriented life goals are zero-sum in nature as being successful at the top of the food chain suggests others being below or even at the bottom. Non-zero-sum life goals or intrinsic goals such as commitment to family, friends, and social and political involvement correlate positively with personal wellbeing while zero-sum life goals or extrinsic goals such as commitment to career success and material gains are negatively correlated with subjective wellbeing (Casas et al., 2004; Headey, 2006; Kasser, 2004).

Table 5 shows the happiness and life satisfaction regressions on the three groups of life goals.

Table 5 clearly shows the positive correlations of non-zero-sum life goals with happiness and life satisfaction, for both working youths and youths in school. On the other hand, zero-sum life goals have a negative influence.

Items in career-oriented life goals in NYS 2019 are related to income aspirations. Incidentally, Hovi and Laamanen (2021), using European panel data, found that income correlates with subjective wellbeing and that income aspirations matter more in higher income countries; however, income aspirations dampen wellbeing induced by higher income, especially in high-income countries. Similarly, we see in NYS 2019 that career-oriented life goals reduce subjective wellbeing while household income step has a positive and significant influence on the subjective wellbeing of youths.

Do we see any interaction effect of household income step and career-oriented life goals on subjective wellbeing in NYS 2019? We conduct further regression analyses with household income step interacting with the three groups of life aspirations and find that the interaction of career-oriented life goals with household income step has a positive influence on both happiness and life satisfaction. This suggests that while zero-sum career-oriented life goals diminish subjective wellbeing directly, career-oriented life goals at higher household income step may have a positive influence on happiness and life satisfaction. Interestingly, youths at higher household income steps have higher family-oriented life goals, higher altruism-oriented life goals, but lower career-oriented life goals.



- TABLE 4: CONSTRUCTED INDICES OF LIFE GOALS

	Non-zero-	Zero-sum life goals	
Index	Family Life Goals	Altruism Life Goals	Career Life Goals
Cronbach's Alpha	0.6820	0.7466	0.5832
Variables	To maintain strong family relationships	To be actively involved in local volunteer work	To acquire new skills and knowledge
	To get married	To be actively involved in overseas volunteer work	To start my own business
	To have children	To help the less fortunate	To earn lots of money
		To contribute to society	To have a successful career

- TABLE 5: WELLBEING REGRESSIONS WITH LIFE GOALS

	Model 1 (All)	Model 2 (Working)	Model 3 (Studying)	Model 1 (All)	Model 2 (Working)	Model 3 (Studying)
	Happiness		Life Satisfaction			
	(n=3,350)	(n=1,884)	(n=1,100)	(n=3,350)	(n=1,884)	(n=1,100)
Male	-0.036	-0.054	-0.019	-0.028	-0.063	0.023
Non-Chinese	0.019	0.032	-0.031	-0.050	-0.009	-0.163*
Married	0.050	0.023	-0.149	0.060	0.018	0.076
Age	0.055*	0.149*	0.008	0.076**	0.135*	0.081
Age^2	-0.001	-0.003*	-0.000	-0.001*	-0.003*	-0.002
Household Income Step	0.239***	0.249***	0.179***	0.273***	0.276***	0.200***
Family Life Goals	0.281***	0.243***	0.349***	0.269***	0.232***	0.341***
Altruism Life Goals	0.114***	0.099**	0.115**	0.135***	0.103***	0.174***
Career Life Goals	-0.139***	-0.144***	-0.143**	-0.172***	-0.162***	-0.164**
R^2	0.1338	0.1299	0.1171	0.1590	0.1509	0.1355
Prob > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note

*** p<0.01, ** p<0.05, * p<0.1

PURPOSEFUL & MEANINGFUL OF LIFE

Purpose in life matters in subjective wellbeing of youths (Jin et al., 2016; Steger, 2018). In particular, having identified a purpose in life is associated with greater life satisfaction for adolescents, emerging adults, and adults, while searching for a purpose in life has an influence for the first two age groups (Bronk et al., 2009). Heng et al. (2020) compared purpose and meaning in life, parental and teachers' support, and life satisfaction among Singaporean and Israeli adolescents, and found Singaporean students with no purpose orientation have lower life satisfaction. For both groups of students, presence of meaning in life, parental support, and teachers' support are positive predictors of life satisfaction.

Noting the significance of purpose and meaning in life on subjective wellbeing documented in the literature, we will seize the opportunity to link an item in NYS 2019 on the importance of having a purposeful

and meaningful life to the three groups of life aspirations, exploring whether they contribute significantly to the purpose and meaning of life.

Table 6 reports the logistic regression results that both non-zero-sum life goals correlate positively and significantly with having a purposeful and meaningful life, for both working youths and youths in school. Career-oriented life goals matter for youths at work but not for youths in school in terms of their purpose and meaning in life, which is understandable as career goals likely matter more significantly in the lives of working youths than students. Recall that career-oriented life goals, being zero-sum, affect subjective wellbeing negatively, and therefore this particular aspect of purpose and meaning in life might diminish the wellbeing of youths.

TABLE 6: LOGIT REGRESSION ON COVARIATES OF PURPOSEFUL & MEANINGFUL LIFE

Purposeful Life	Model 1 (All)	Model 2 (Working)	Model 3 (Studying)
	(n=3,350)	(n=1,884)	(n=1,092)
Male	-0.584*	-0.665*	-0.724
Non-Chinese	-0.399	-0.200	-0.018
Married	-0.610	-0.546	0.000
Age	0.196	0.551	-1.729
Age^2	-0.003	-0.010	0.055
Household Income Step	-0.011	0.195	-0.441
Family-Life Goals	0.747***	0.801***	0.728**
Altruism-Life Goals	0.880***	0.754***	1.177***
Career-Life Goals	0.843***	1.090***	0.222
R^2	0.2186	0.2764	0.2075
Prob > Chi2	0.0000	0.0000	0.0000

Note

^{***} p<0.01, ** p<0.05, * p<0.1

Forward-Looking Sentiments

Apart from the motivations they have now, youths' perception of how the future might turn out to be would have an impact on their subjective wellbeing as well.

Schuck and Steiber (2018) found that diminishing intergenerational educational mobility and perceived status loss have led to lower subjective wellbeing of European young adults. In a similar vein, we can conduct more in-depth analyses to ascertain whether perceived social mobility and inequality accounts for the slight decline in the subjective wellbeing of youths over the recent years. This section will consider how expectations about the future may have an impact on the subjective wellbeing of youths, and we focus on three items in NYS 2019: the perceived sufficiency of opportunities in their careers (Career Opportunity), and attitudes of social mobility (Work-Connection) and inequality (Inequality-Incentive).

CAREER OPPORTUNITY

Career Opportunity is a standardised variable based on the 5-point Likert scale item "There are enough opportunities in Singapore for me to have a good career". The average scores have reflected a general sense of tentativeness at 3.37 in 2016 and 3.38 in 2019.

WORK-CONNECTION

Work-Connection measures the perception of hard work versus luck and connection in bringing success. This is a standardised variable based on the 10-point scale where 1 represents "in the long run, hard work usually brings a better life" at one end, and 10 represents "hard work doesn't generally bring success – it's more a matter of luck and connections". This measure has seen an increase from 4.97 in 2016 to 5.72 in 2019. The reverse-coding of the item is a proxy for perceived social mobility⁴ or meritocracy.

Perceived social mobility or meritocracy, used interchangeably here, is an important contributor to subjective wellbeing. Nikolaev and Burns (2014), using data from the General Social Survey in the U.S., showed that upward and downward intergenerational mobility had

respectively a positive and a negative impact on self-reported level of happiness. Similarly, Zhao et al. (2017) found that both inter- and intra-generational social mobility had a positive effect on subjective wellbeing in China. We will expect similar results for NYS 2019 when we consider the influence of perceived social mobility.

INEQUALITY-INCENTIVE

Inequality-Incentive is a standardised variable based on the 10-point scale where 1 represents "income should be made more equal" at one end, and 10 represents "we need larger income differences as incentives for individual effort" at the other end. The item Inequality-Incentive suggests an optimal level of perceived inequality with a higher score implying more inequality is preferred compared to a lower score.

Social mobility and inequality are related concepts and can be jointly determined in the conceptual model of Ho and Tan (2021). Does inequality increase or decrease happiness? Katic and Ingram (2018) hypothesised that the relationship between income inequality and subjective wellbeing was influenced by mechanisms such as egalitarian preferences, perceived fairness, social comparison concerns, as well as perceived social mobility. Alesina et al. (2004) showed that inequality could have different effects on happiness, depending on the perception of social mobility and the economic status of the respondents. In other words, wellbeing, inequality, and perceived social mobility are inter-related.

Table 7 reports the happiness and life satisfaction regressions on the items career opportunity, work-connection, and inequality-incentive. Observe that career opportunity enhances both happiness and life satisfaction, for both working youths and youths in school. Although work-connection is not statistically significant throughout all the models in Table 7 we do see that a higher level of agreement that

⁴Katic and Ingram (2018) used a reverse-coded version of the same question in NYS 2019 to represent perceived social mobility. We will interpret the reverse-coded version as an indicator for perceived social mobility and perceived meritocracy.

TABLE 7: WELLBEING REGRESSIONS WITH PERCEIVED OPPORTUNITIES & INCENTIVES

	Model 1 (All)	Model 2 (Working)	Model 3 (Studying)	Model 1 (All)	Model 2 (Working)	Model 3 (Studying)
		Happiness			Life Satisfaction	
	(n=3,350)	(n=1,884)	(n=1,100)	(n=3,350)	(n=1,884)	(n=1,100)
Male	-0.065*	-0.067	-0.060	-0.058	-0.077*	-0.023
Non-Chinese	0.077*	0.084	0.024	0.002	0.039	-0.098
Married	0.186***	0.133**	0.081	0.188***	0.123**	0.292
Age	0.061*	0.153**	0.019	0.082***	0.138*	0.093
Age^2	-0.001*	-0.003**	-0.001	-0.002**	-0.003*	-0.002
Household Income Step	0.175***	0.169***	0.136***	0.218***	0.202***	0.167***
Career Opportunity	0.295***	0.279***	0.333***	0.275***	0.277***	0.285***
Work-Connection	0.025	0.032	0.013	0.042*	0.034	0.057
Inequality-Incentive	0.107***	0.095***	0.109***	0.091***	0.069***	0.101***
R^2	0.1813	0.1872	0.1539	0.1923	0.2046	0.1398
Prob > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note

inequality provides an incentive to put in effort correlates positively with subjective wellbeing, highlighting the importance of the incentive to move up, which can be in the form of inequality.

As we continually note an obvious and significant correlation between household income step and subjective wellbeing, it may be insightful to explore the interaction of household income step and perceived social mobility, as motivated by Ho and Tan (2021) and Alesina et al. (2004). Further analyses using NYS 2019 by sub-samples of youths at the lower and upper half of the perceived social ladder found that perceived social mobility becomes a significant contributor to subjective wellbeing more so for youths in the perceived lower half of the social ladder than for those in the upper half. For those in the upper half of the social ladder, the interaction of work-connection and inequality-incentive has a negative influence on subjective wellbeing. Intuitively, perceived social mobility matters much in subjective wellbeing especially for the poor, and for the rich, the contribution of

perceived social mobility to subjective wellbeing is dampened when inequality-incentive is high, suggesting that connections and luck may become more important. In summary, although work-connection seemed not to be important in **Table 7**, our further analyses with interaction reveal the importance of perceived social mobility in enhancing the subjective wellbeing of youths in Singapore.

PERCEIVED FUTURE PREPAREDNESS & COMPETENCIES

Perceived opportunities about the future have an influence on the subjective wellbeing of the youths in Singapore and one indicator related to one's future is one's perception on having "what it takes to succeed in the future" which we will use as a dependent variable called Perceived Future Preparedness.

What are the key skills or competencies needed for the future? We take the hint from the World Economic Forum (2020) which

^{***} p<0.01, ** p<0.05, * p<0.1

identified the top four skills (among ten skills needed for the future of jobs) as being in high demand in Singapore: analytical thinking and innovation, active learning and learning strategies, leadership and social influence, and emotional intelligence. Next, we check the NYS and construct indices which overlap with the skills identified in World Economic Forum (2020): Leadership Competency, Diversity Competency, Emotion Competency, and Innovation Competency. The items used in the construction of these indices are reported in

Table 8 while **Table 9** presents the logistic regression of perceived future preparedness on the four competencies.

Table 9 shows Leadership Competency, Emotion Competency, and Innovation Competency as significant contributors to the perceived future success of youths, but not Diversity Competency. Household income step remains an important covariate.

■ TABLE 8: CONSTRUCTED INDICES OF PERCEIVED COMPETENCIES

Index	Innovation Competency	Emotion Competency	Diversity Competency	Leadership Competency
Cronbach's Alpha	0.7656	0.6209	0.6679	0.7912
	Learning and applying new knowledge/skills	Being good at making friends	Knowing a lot about people of other races and cultures	Taking initiative
Variables	Understanding the impact of global forces on local culture	Caring about other people's feelings	Respecting the values and beliefs of people who are of different culture	Analysing and evaluating issues objectively
variables	Being innovative (i.e., generating new solutions)	Being able to manage my thoughts and feelings	Working well with other people	Being good at planning ahead
Adapting to change	Adapting to change			Speaking publicly
				Leading a team of people



TABLE 9: LOGIT REGRESSION ON COVARIATES OF PERCEIVED FUTURE PREPAREDNESS

Perceived Future Preparedness	Model 1 (All)	Model 2 (Working)	Model 3 (Studying)
	(n=3,350)	(n=1,884)	(n=1,100)
Male	0.118	0.090	0.194
Non-Chinese	0.106	-0.076	0.356*
Married	0.053	0.086	0.669
Age	0.162**	0.300*	0.196
Age^2	-0.003*	-0.006*	-0.005
Household Income Step	0.313***	0.342***	0.274***
Leadership Competency	0.752***	0.721***	0.722***
Diversity Competency	-0.082	-0.006	-0.042
Emotion Competency	0.262***	0.254*	0.373**
Innovation Competency	0.617***	0.597***	0.539***
R^2	0.1644	0.1626	0.1620
Prob > F	0.0000	0.0000	0.0000

Note

*** p<0.01, ** p<0.05, * p<0.1

Intergenerational Mobility

Earlier sections have documented the important separate contributions of relationship stocks, life goals, and forward-looking sentiments to subjective wellbeing of youths in Singapore. Given the importance of perceived social mobility and career opportunity in subjective wellbeing of youths in Singapore, as documented earlier, we want to focus on the link between parental income and personal income of the working youths to uncover the extent of intergenerational transmission of economic status⁵. We will conduct quantile regressions so that we may examine any difference across income groups of youths; in particular, if the intergenerational income elasticity (which measures

the dependence of youth's income on parental income) varies across groups of youths, the mobility or opportunity faced by them will be different too. This section will provide estimates of actual mobility, in addition to perceived social mobility as discussed in earlier sections.

Table 10 reports the quantile regressions at five percentiles, namely P10 (10th percentile), P30 (30th percentile), P50 (50th percentile), P70 (70th percentile), and P90 (90th percentile) of the youths with personal income in Singapore, based on NYS 2019.

⁶Ho (2018) reported on the intergenerational education mobility across different waves of NYS. We focus on income in this paper.

The intergenerational income elasticity, which is the coefficient of the natural log of parental income, and which indicates the dependence of youth's income on parental income, exhibits a U-shaped relationship, suggesting that personal income of youths in the lower and upper quantiles are more likely to be dependent on their parental income. This can be understood as youths from upper middle income group experiences highest mobility in Singapore, while youths in the lower and upper quantiles might have experienced lower mobility than those at the upper middle group.

As a robustness test, instead of using parental years of education, we use dummies of whether parents have university degrees as controls in a separate quantile regression. The results are similar as those reported in **Table 10** below. Our findings suggest an overall existence of an equality of opportunity enjoyed by the youths in Singapore,

especially the broad middle-income group from P30 to P70, and that is a crucial determinant of the wellbeing of the youths in Singapore.

Table 11 shows the chances of the youths born to the lowest income quintile of parents reaching the various quintiles of youth's income, based on NYS 2019. Specifically, 20.84% of them remain in the lowest quintile, lower than U.S.'s 33.7%, as reported in Ministry of Finance (2015, Figure 11A), implying the extent of immobility at the bottom quintile is lower in Singapore.

How about the chances of moving up from the bottom quintile to the top quintile? **Table 11** reports a chance of 16.25%, which is slightly higher than 14.3%, documented in Ministry of Finance (2015) using more comprehensive Singaporean data, which in turn is much higher than 7.5% of U.S. (Ministry of Finance 2015, Figure 11A). In summary, **Tables 10 and 11** show that social mobility is much alive in Singapore.

- TABLE 10: INTERGENERATIONAL INCOME MOBILITY QUANTILE REGRESSIONS

In Personal Income	P10	P30	P50	P70	P90
			(n=1,946)		
In Parental Income	0.158**	0.096***	0.067***	0.065***	0.110***
Father's Years of Education	-0.003	-0.008**	0.005	0.006*	0.015**
Mother's Years of Education	0.005	0.027***	0.014**	0.009**	0.013**
Age	0.093	0.592***	0.562***	0.218***	-0.296***
Age^2	0.002	-0.009***	-0.009***	-0.003**	0.008***
Male	0.137**	0.027	-0.031	-0.045*	0.005
Non-Chinese	-0.588***	-0.418***	-0.307***	-0.282***	-0.297***
Pseudo R^2	0.2534	0.3543	0.2697	0.1756	0.1403

Note

TABLE 11: TRANSITION FROM BOTTOM QUINTILE OF PARENTAL INCOME

NYS 2019	Youth's Personal Income Quintle				
	1 st	2 nd	3 rd	4 th	5 th
Bottom Quintile of Parental Income	20.84%	25.05%	26.96%	10.90%	16.25%

^{***} p<0.01, ** p<0.05, * p<0.1

Concluding Remarks

This paper has documented empirically the important influence of relationship stocks (namely family capital, community capital, and national capital), life goals (family-oriented and altruism-oriented life goals which are non-zero-sum, and career-oriented ones which are zero-sum in nature), and forward-looking sentiments (career opportunity, work-connection, and inequality-incentive) on the subjective wellbeing of youths in Singapore. Analyses conducted are based on data from the NYS 2019, and results are consistent with past findings based on earlier waves of NYS.

RELATIONSHIP STOCKS

Both the family capital and national capital remain as significant contributors to subjective wellbeing. The national capital Index correlates significantly with trust in the legal institutions in Singapore, representing youths' trust in an infrastructure to provide protection, law and order in Singapore.

Within the community capital, only higher level of participation in social groups correlate positively to both happiness and life satisfaction. When participation and leadership are examined individually, it was found that higher level of involvement as leaders in these social groups is associated with a lower level of subjective wellbeing. This may be due to the time pressures faced by young people to navigate competing priorities.

LIFE GOALS

All three measures of family-oriented, altruism-oriented, and career-oriented life goals contributed to higher levels of purposeful and meaningful life, while only non-zero-sum goals correlated positively with subjective wellbeing. Interestingly, higher career aspirations bring about lower levels of subjective wellbeing although they score a high weight in the purpose and meaning in the lives of working youths. This differs slightly from the findings from Zhang and Zhang (2017) where extrinsic goals have negligible influences on wellbeing and meaning and purpose in life. Further research can explore whether unmet aspirations have an influence on subjective wellbeing as Schwandt

(2016) has shown that to be a possible reason for the U-shaped age profile of subjective wellbeing.

An interaction of career-oriented life goals with household income step has a positive influence on both happiness and life satisfaction, suggesting that while zero-sum career-oriented life goals diminish subjective wellbeing directly, career-oriented life goals at higher household income step may have a positive influence on happiness and life satisfaction. This differs from findings from Hovi and Laamanen (2021) where, interestingly, youths at higher household income steps in Singapore have higher family-oriented life goals, higher altruism-oriented life goals, but lower career-oriented life goals.

FORWARD-LOOKING SENTIMENTS

Forward-looking youths are influenced by perceived opportunities in career, social mobility, and attitude toward inequality in terms of their subjective wellbeing. For the general youth population, perceived career opportunity and inequality as an incentive to move up the social ladder are positively correlated to happiness and life satisfaction. Perceived social mobility is an important determinant of subjective wellbeing, especially for youths in the lower half of the social ladder, but the influence of meritocracy may diminish the influence of inequality as an incentive for youths in the upper half of the social ladder.

What do these finding suggest? The demand for income redistribution among youths in Singapore seems to be low, implied by the robust positive relationship between inequality-incentive and subjective wellbeing for youths in both the lower half and the upper half of the social ladder; in fact, Singaporean youths are generally incentivised to put in individual efforts by differences in economic rewards such as income. In preparing our youths for the future, greater attention should be placed on skillsets related to perceived preparedness for the future such as leadership competency, emotional competency, and innovation competency.

INTERGENERATIONAL MOBILITY

Quantile regressions on the intergenerational transmission of income show that parental influence or dependence on parental income decreases as youth's income increases till 70th percentile, and the values of the income elasticities from P30 to P70 are quite similar, implying social mobility is much alive among the broad middle income group of youths. Although the studies are not strictly comparable, comparisons between the NYS 2019 with the Panel Study of Income Dynamics database of U.S. from 1980 to 2010 period (Palomino et al., 2018) and the British Cohort Study (Gregg et al., 2019), found that social mobility among youths remains healthy particularly for the middle income group and is not overly influenced by parental income. Future research should explore the mobility barriers faced at the lower tail of the income distribution.

ALL TOGETHER!

As forward-looking sentiments matter much in the subjective wellbeing of our youths, we explore further its relationship with family capital, community capital, and national capital. Separate logit regressions found that support from the family and the nation in terms of various institutions and government policies are important. National capital is a positive and significant covariate of perceived career opportunities, perceived social mobility, and inequality as an incentive to move up the social ladder. Family capital correlates positively with perceived career opportunities and social mobility (for the sample of working youths).

For community capital, a higher level of participation in social groups translates to a lower level of agreement that inequality is needed as incentive for individual's effort; intuitively, social participation, likely with mixing across youths from different background, encourages a concern for the less privileged and disadvantaged, and therefore a view that incomes should be made more equal.

ARE THERE CHALLENGES TO THE SUBJECTIVE WELLBEING OF YOUTHS IN SINGAPORE?

We would highlight two potential groups of threats: one related to the family and the other on challenges to social mobility in Singapore.

Based on literature and statistics on Singaporean families and

parenthood, and her 10-year study on parental roles and relationships in Singapore, Quek (2014) concluded that while Singaporeans continue to have aspirations related to the family such as marriage and bringing up children, competing aspirations in career and gender role pose challenges. The tension between family time and working hours will affect investment in different relationship stocks and human capital, in the framework presented in this paper, and the responses could be outsourcing of household-chores, and many hours of tuition. Helping hands from grandparents (a family stock which may be affected by the aging population in Singapore) and high-quality childcare and after-school services would contribute to the wellbeing of families and possibly their children and youths.

What is the impact of COVID-19 on the wellbeing of families? Based on a survey of 572 low income families with preschool-age children in Chicago, Kalil et al. (2020) found that parental job and income losses are associated with depressive symptoms, diminished sense of hope, and negative interactions with children. Closer to home, Ong et al. (2020)⁶ highlighted the major problems faced by the less-todo Singaporeans during the COVID-19 pandemic, especially in the period of the circuit breaker: financial difficulties, emotional distress, employment challenges, mental health conditions, and caregiver fatigue or spousal abuse. About 56% had a fall in household income due to COVID-19, 66% listed mental wellbeing as a major challenge. and 30% cut down expenses. Fortunately, 54% of them received formal financial assistance from the government. Also, the children of the poorer households faced more challenges in home-based learning due to a lack of digital resources, physical learning space at home. and coaching from parents7. Although the COVID-19 shock could be temporary, it has lasted more than a year at the time of writing this paper. It has pointed out the uneven impact on the wellbeing of families and individuals, working youths and youths in school included, and the underlying inequality in resources, either economic or social, needed to overcome the challenges.

The second group of challenges relate to social mobility and growth in Singapore. Singapore, being a small, open city-state and also a mature economy, will likely face diminishing growth. Therefore, shifting from a mere pursuit of rapid economic growth toward an

⁶See www.tinyurl.com/CSDBoutput1.

⁷See, for example, https://www.straitstimes.com/lifestyle/how-home-based-learning-hbl-shows-up-inequality-in-singapore-a-look-at-three-homes.

inclusive and sustainable growth is critical. Continual upskilling, reskilling, and industrial experiential education, especially for Singaporean youths from disadvantaged backgrounds, and especially with heightened future uncertainty and rapid technological disruption more recently, will facilitate upward mobility. This is a key determinant of subjective wellbeing. The importance of meritocracy as a predictor of happiness and life satisfaction seems to remain valid based on our empirics, even more so for youths in the lower half of the social ladder, but we are aware of potential shifts in meanings of meritocracy as pointed by Frank (2016) and Sandel (2020). Therefore we propose a cultivation of a caring-for-others social compact and upholding principles of Major and Machin (2020) as discussed in Ho and Tan (2021)⁸,

⁸The four principles are collectivism, fairness, community, and decency. Ho and Tan 2021) briefly discussed essential workers, the Fair Consideration Framework, social mixing, and the Progressive Wage Model in relation to these four principles of Major and Machin (2020).

so that social mobility, individual wellbeing, and social wellbeing may be enhanced.

In conclusion, the subjective wellbeing of youths in Singapore remains strongly built upon the foundations of family, community, and national relationship stocks, non-zero-sum life goals, and perceived opportunity and social mobility. Our estimates of intergenerational income mobility based on quantile regressions suggest the existence of an equality of opportunity among our youths in the broad middle income group; further and future investigations using forthcoming waves of NYS, together with in-depth qualitative research and more focused follow-ups, may want to find out the barriers faced by our youths in their quest for upward mobility and subjective wellbeing. In the meantime, there is a role for society to come together and support our young people through the various life stages at the present and for the future.

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Adulting well: Impact of youth-to-adulthood transitions on life satisfaction

Insights from the Youth Study in Transitions & Evolving Pathways in Singapore (Youth STEPS)



Youths today: The middle ground between might & madness

Jeffrey J. Arnett, the eminent scholar on emerging adulthood describes it as the "age of possibilities... the age of high hopes and great expectations... (a time where) emerging adults look to the future and envision a well-paying, satisfying job, a loving, lifelong marriage to their "soul mate" and happy children who are above average" (Arnett, 2015, pp. 15-16). Another scholar, Christian Smith (and colleagues), strikes a more cautious tone, describing emerging adulthood as a phase that is "accompanied by large doses of transience, confusion, anxiety, self-obsession, melodrama, conflict, disappointment, and sometimes emotional devastation" (Smith et al., 2011).

Our chapter takes the middle ground, which is that life satisfaction moves according to the specificities of life circumstances, most compellingly, whether or not youths are successfully crossing the various milestones of life. Indeed, one criticism of Arnett's work is that his descriptions of youthful bliss "apply only to the middle class and above, and do not reflect the harsh realities of life for young people in lower socioeconomic status (SES) levels" (Arnett, 2015, p. 19). The pathways of emerging adulthood are arguably more diverse, complex, and iterative.

In addition, life satisfaction would also depend upon the broader socio-economic context, for example, the extent to which local and macro societal conditions are favourable, or if economic shocks, pandemics, and the like may stymie youths' expectations and outcomes. To better understand the interplay of trajectories and social conditions that youths negotiate, the *Youth Study in Transitions and Evolving Pathways in Singapore (Youth STEPS)* was set up in 2017¹ to collect rich and robust youth data to provide insights into how

different transitions and pathways are related to national, social, and economic outcomes (e.g., social attitudes, subjective wellbeing, and social mobility).

Our study thus focuses on three life transitions: the transition from lower to higher levels of education; the transition from school to paid work, and the transition into marriage. Our results show the positive impact of these transitions on life satisfaction, which means the opposite too, that stalled transitions, for example, stopping school prematurely or not qualifying for further education or falling into unemployment and underemployment, might depress life satisfaction as much.

Our results underscore the importance of full-time employment in a time of a growing number of gig economy jobs that seem only to promise job satisfaction but may prove illusory. We end our chapter with findings showing that ageing and macro level factors have a role in life satisfaction, factors that include current global conditions. We end with the assertion that government and policymakers have an important role in facilitating pathways of transition for youths, and that the power is in their hands to shape local conditions such as job creation and social stability that make coming of age a time of optimism and possibilities, as Arnett predicts it ought to be.

¹Youth STEPS is the first national long-term research conducted on youth in Singapore. It is a collaboration between the National Youth Council (NYC) and the Institute of Policy Studies (IPS) Social Lab at the National University of Singapore. The first and second authors are the Principal Investigator (PI) and Co-PI respectively.

Understanding adulting from a panel approach

The panel study began with 4,041 youths aged 17 to 24 in 2017. The nature of a panel study entails surveying the same sample of participants over an extended period. The chapter taps into the major strength of the panel to track developmental and longitudinal changes in attitudes, values, and behaviours in panellists as they move from year-to-year. Drawing on the full potential of the panel data, that is, utilising the first three available waves of data, this chapter features fixed effects regression models that show how different transitions and pathways into adulthood are related to the wellbeing of youths.

The title of the chapter – Adulting well – draws from the enquiry into the impact of youth-to-adulthood transitions on life satisfaction and we interrogate three transitions in particular: (1) the movement from lower to higher levels of schooling (e.g., from lower (O levels and lower) to higher levels of schooling (A levels, diploma and university), (2) the movement from full-time student status into employment (whether part-time or full-time employment, including the entry into unemployment), and (3) the movement from singlehood to marriage.



Youth STEPS panel composition

Youth STEPS panellists were randomly selected to participate in the study in 2017 (Wave 1), based on a nationally representative sampling frame of 17 to 24-year-old youths. Of the youths who were selected, n=4,041 were successfully recruited to the panel in Wave 1 with a 61.2% response rate.

All panellists were surveyed through face-to-face interviews in Wave 1, while panellists who continued to participate in Wave 2 and Wave 3 were given the option of completing the survey online or through face-to-face interviewing. In Wave 2, a total of 3,618 panellists completed the survey (89.5%) either online or face-to-face. In Wave 3, n=3,178 (87.8% year-on-year) completed the survey.

Panel representation has remained stable across waves. **Table 1** shows the breakdown of the demographics of the panel according to

four key variables: age, gender, ethnicity, and dwelling type. As all four variables are time-invariant (we assumed dwelling type to be constant over the three years and age unfurls in lockstep the same way for everyone), changes in proportions are solely due to changes in panel representation.

The referent age distribution changes from wave-to-wave. When the panellists first joined the Youth STEPS study in 2017, half of them were 20 and below. Since then, a quarter of them have reached the age of majority and 74% of active panellists are now 21 and above. The average age of panellists has increased from 20.5 in 2017 to 22.4 years old in 2019. The oldest youth in the panel reached 26 years old in 2019.

- TABLE 1: PANEL COMPOSITION BY AGE, GENDER, ETHNICITY, & DWELLING TYPE ACROSS WAVES

		Wave 1	. (2017)	Wave 2	(2018)	Wave 3	(2019)
		n	%	n	%	n	%
	17/18/19	488	12.1	446	12.3	418	13.2
	18/19/20	512	12.7	462	12.8	407	12.8
	19/20/21	519	12.8	467	12.9	414	13.0
	20/21/22	534	13.2	465	12.9	404	12.7
Age of Respondent	21/22/23	500	12.4	451	12.5	388	12.2
	22/23/24	513	12.7	449	12.4	386	12.1
	23/24/25	514	12.7	463	12.8	397	12.5
	24/25/26	461	11.4	415	11.5	364	11.5
	Total	4,041	100.0	3,618	100.0	3,178	100.0
	Male	2,054	50.8	1,801	49.8	1,559	49.1
Gender	Female	1,987	49.2	1,817	50.2	1,619	50.9
	Total	4,041	100.0	3,618	100.0	3,178	100.0
	Chinese	2,822	69.8	2,583	71.4	2,337	73.5
	Malay	764	18.9	637	17.6	511	16.1
Ethnicity	Indian	374	9.3	330	9.1	273	8.6
	Others	81	2.0	68	1.9	57	1.8
	Total	4,041	100.0	3,618	100.0	3,178	100.0
	HDB Studio & 1-2 rooms	168	4.2	130	3.6	101	3.2
	HDB 3 rooms	560	13.9	479	13.2	418	13.2
	HDB 4 rooms	1,546	38.3	1,386	38.3	1,218	38.3
Dwelling Type	HDB 5 rooms & executive	1,394	34.5	1,286	35.5	1,167	36.7
	Private flat & condominium	238	5.9	215	5.9	174	5.5
	Private house & bungalow	135	3.3	122	3.4	100	3.1
	Total	4,041	100.0	3,618	100.0	3,178	100.0

Note

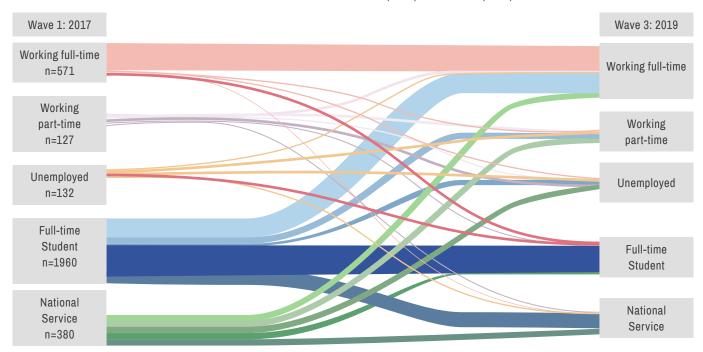
Percentages may not add up to 100% due to rounding.

TRANSITIONS IN EMPLOYMENT STATUSES

For many Youth STEPS panellists, growing older meant leaving school and entering the workplace. The Sankey chart in **Figure 1** illustrates the transitions between different employment statuses from 2017 to 2019. In sheer numbers, transitions from full-time student into the workforce and into national service took place most frequently. Half the full-time students in 2017 were still studying in 2019 and most of the working youths remained in full-time employment.

The panel started with 62% full-time students and 22% working youths in 2017. In 2019, students comprised about 40% of the panel and were matched by the working youths (both full-time and part-time) in numbers.

FIGURE 1: TRANSITIONS IN EMPLOYMENT STATUSES FROM WAVE 1 (2017) TO WAVE 3 (2019)



	Wave 1 (2017)	Wave 3 (2019)	Δ (W3-W1)
Unemployed	4.2%	6.5%	+2.3%
Working full-time	18.0%	33.4%	+15.4%
Working part-time	4.0%	7.0%	+3.0%
Full-time student	61.7%	40.4%	-21.2%
National Service	12.0%	12.4%	+0.5%
Homemaker or full-time caregiver	0.3%	0.3%	±0.0%

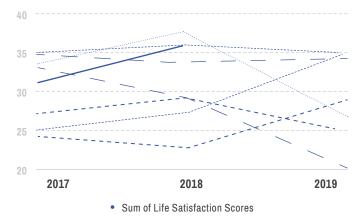
TRANSITIONS IN MARITAL STATUS

Marriage and parenthood represent among the most significant transitions one can make into adulthood. In 2019, Youth STEPS comprised 3,080 singles (96.9%), 94 married (3.0%) and 4 who were separated, divorced, or widowed. 54 panellists got married since they joined the panel. The number of children increased from about 49° in 2017 to 79 in 2019.

How the panel approach differs from cross-sectional studies

Cross-sectional studies track different samples over time. By contrast, panel studies track the same sample over time, in our case, over three waves (2017, 2018, 2019). **Figure 2** provides an example of changes in life satisfaction scores over three waves for 10 respondents. By wave 3, we had accumulated 3,178 such trajectories.

FIGURE 2: FOLLOWING THE PERSON OVER THREE TIME PERIODS ON LIFE SATISFACTION (10 PERSONS FOR ILLUSTRATION)



²The upper bound for the response options for number of children in 2017 was '3 or more children'.

With a panel structure, we ran a series of *fixed effects (FE)* regressions to enrich our analysis in two ways: first, by estimating the unique effects of school, work and family life transitions on the outcome of life satisfaction, and second, by controlling for *all* time-invariant factors - and these would include gender, race, family background, even factors such as personality and ability (or IQ) – we filter out the role of some very important determinants of life satisfaction. We use the term "fixed effects" as time-invariant factors are *fixed over time within the same person* (even if they do vary between persons).

We emphasise that transitions are movements from one year to the next. Thus, in our analyses, the movement from lower levels of education to higher levels of education represents the formal process of human capital accumulation. The movement from school to workplace represents the process of getting a job. And the movement from singlehood to marriage represents the process of family formation. We ask how these three transitions affect life satisfaction.

RESULTS FROM CROSS-SECTIONAL ANALYSES

Our panel analysis yielded a result different from what it would have been if a cross sectional approach was adopted, and we illustrate that difference here. We begin with results from cross-sectional analysis using Ordinary Least Squares (OLS) regressions, with the outcome being life satisfaction (Table 2).

The findings show no significant gender differences in life satisfaction. We also see that Malays and Indians (as racial minorities) are more satisfied than Chinese (the majority racial group in Singapore).

Higher educational attainment is associated with higher levels of life satisfaction. In both models, those with A level qualifications (and/or diploma) including those with university degrees are more satisfied than those with O level qualifications or less (the reference category). Housing type, another proxy of SES, has also a substantial role in life satisfaction. Both models show that those dwelling in 4-5 room HDB flats including those in private housing report higher life satisfaction than those who dwell in 1-3 room HDB flats.

Tellingly, transitions from school to work are associated with lower life satisfaction. In fact, all employment statuses are negatively associated with life satisfaction (i.e., unemployed, working full-time, and working part-time). One could think of reasons that include the adjustment stresses that come with entering the worker role, a role that can entail high expectations and demands from employers and peers alike (Melchior et al., 2007).

The findings show that marriage correlates strongly and positively with life satisfaction. The vast majority of the sample remains unmarried by wave 3, but for those married (about 3%), we see a compelling rise in life satisfaction³.

The table shows a precipitous drop in life satisfaction over time. We see that levels of life satisfaction are lower in 2018 and 2019 than in 2017 (the reference time category). This is either the effect of age, of cohort, or both.

The overall amount of variation explained by the independent variables is rather small, only 4%, which means that 96% of the variance in life satisfaction remains unexplained by these models, suggesting we need a better model. We offer the panel model as a vast improvement over this.

RESULTS FROM PANEL ANAYLSES

Table 3 shows the results based this time on fixed effects (FE) regressions. Beginning with Model 1, the model shows some unexpected findings. First, transiting from lower (O levels and lower) to higher levels of schooling (A levels, diploma, and university) significantly reduces life satisfaction. Second, transiting from singlehood to marriage produces no change in life satisfaction. Third, transiting from full-time student to employment (whether full-time or part-time) produces a drop in life satisfaction, with the same declining impacts seen in the move from student to unemployed status as well (Table 3, Model 1). These patterns go against the grain of what we would expect, that life transitions such as social mobility in school and in work, including the transition to a supportive marriage do generate greater life satisfaction as documented elsewhere (Grun et al., 2010; Salinas-Jimenez et al., 2010; Stutzer & Frey, 2006). The counter-intuitive results suggest that something is depressing these numbers.

Here is where time-fixed effects are useful. We call them "time-fixed effects" because they capture the effects of aging and macro-level conditions that have changed from year-to-year, and are assumed to affect all persons equally. Macro conditions can include a wide number of events, local and global, that cover economic crises, pandemics, climate change, and others, that can have a significant impact on life satisfaction (Frijters et al., 2004; Liang et al., 2020).

TABLE 2: PREDICTORS OF LIFE SATISFACTION (ORDINARY LEAST SQUARES REGRESSION)

	Answered Wave 1 & Wave 3	Answered Any Two Waves
Female	.25+	.23
Malay	.98***	.93***
Indian	1.88***	1.95***
Other	.81	.54
A levels & diploma	.42*	.44**
University	1.72***	1.71***
HDB 4-5 rooms	1.11***	1.00***
Private housing	2.02***	2.07***
Married	2.82***	2.79***
Unemployed	-1.84***	-1.79***
Working full-time	98***	-1.03***
Working part-time	-2.13***	-2.11***
National service	17	24
Homemaker or full-time caregiver	1.47	.05
2018	92***	85***
2019	-1.80***	-1.77***
Constant	28.27***	28.35***
Number of observations	9,454	10,491
R-square	.04 (rounded)	.04 (rounded)

Notes

Reference categories - Male, Chinese, Up to 'O' levels, 1-3 room HDB, Single, Full-time student, 2017.

³Existing research point to a temporary lift in life satisfaction of approximately 2-3 years from marriage before it regresses to mean (Stutzer & Frey, 2006).

⁺P<.10, *P<.05, **P<.01, ***P<.001

TABLE 3: PREDICTORS OF LIFE SATISFACTION (FIXED EFFECTS REGRESSION) WITH & WITHOUT TIME-FIXED EFFECTS

		Model 1 (Without time-fixed effects)	Model 2 (With time-fixed effects)
MORE and and the control	'A' levels & diploma	95***	.43+
Within school transition	University	-1.39***	.82*
Transition to marriage	Married	.52	1.66*
	Unemployed	52+	56+
	Working full-time	54*	.06
School to work transition	Working part-time	62*	61*
	National service	.37	10
	Homemaker or full-time caregiver	4.26**	4.46**
The third office	2018		95*** (t-stat=-8.34)
Time-fixed effects	2019		-1.88***(t-stat=-14.66)
	Constant	29.76***	29.52***
	Number of observations	9,454	9,454
	Rho	.64	.64

Notes

+P<.10. *P<.05. **P<.01. ***P<.001

Based on respondents who answered Wave 1 and Wave 3.

Reference categories - Up to 'O' levels. Single, Full-time student, 2017.

No estimates for gender, race, housing type because these are time-invariant.

In Model 2 above, we estimate the time-fixed effects, and see that levels of life satisfaction have gone down in the three years, suggesting possibly the presence of macro level conditions that have affected youths' life satisfaction.

In Model 2, when we control for time-fixed effects, we see a marked shift in coefficients. For example, going from lower to higher levels of educational attainment now produces a significant rise in life satisfaction. Marriage now increases life satisfaction. As well, moving from full-time student status to full-time working status now maintains life satisfaction. With the panel analysis, there remains only two employment statuses that go together with a lower life satisfaction:

unemployment and part-time work. Where cross-sectional data are indicating that transition into employment will lower life satisfaction for youths, the panel analysis points out that the pathway into full-time employment keeps life satisfaction from sliding.

Changes in the results between Models 1 and 2 signal that periodic changes do affect life satisfaction. Of importance, the positive associations between life transitions and life satisfaction in Model 2 suggest that life transitions are *intrinsically* valuable, and should be promoted by policy levers, even if bad times do generally depress levels of life satisfaction

What might these macro conditions be? Here we turn to a speech that DPM Heng Swee Keat made at the *Singapore Summit* in September 2019.

THE "SINGAPORE SUMMIT": A CLUE AS TO WHAT THE TIME-FIXED EFFECTS ARE

Even before COVID-19 hit, the world had already been in a troubled spot. DPM Heng's speech at the Singapore Summit reveals much of the *structural* nature of these challenges. To quote him verbatim:

"Today, while the global economy has recovered, the benefits of the recovery have been unevenly distributed. Those who feel marginalised have pushed back strongly. As a result, we are seeing a retreat from globalisation, the growth of nationalist and populist movements, and the disenchantment of voung people. These forces have played out across the world, in the 2016 US presidential election, the UK Brexit referendum, the Yellow Vest movement in France, and the ongoing protests in Hong Kong. The fracturing of societal interests has made it difficult for many governments to secure a mandate to make important changes. As such, politics is increasingly marked by snap polls, hung Parliaments and government shutdowns, which in turn engender further distrust towards governments and the political system. All these point to a fraying of the social compact that holds societies together. Not only has the relationship between governments and their people changed, but the relationship between companies and societies has also altered."

He continues:

"This is especially worrying because the global economy is once again at a crossroads. Trade tensions between the US and China continue. In Europe, the economy is weak, the effects of slowing global trade are being felt, and the Brexit conundrum is adding to uncertainty. Nearer home, the rest of Asia is experiencing slower growth as global demand and investor sentiments have weakened. Unless some of the *fundamental tensions across society* are resolved, we will all find it difficult to weather these challenges. It is therefore important for each society to renew its social compact."

We argue it is against such a backdrop that the overall decline in life satisfaction levels among the young ought to be interpreted.

In the panel models, the "Rho" reads .64, suggesting that the models explain 64% of the variance in life satisfaction. Thus, the panel models are a much better fit as compared to the cross-sectional models. In panel models, time-invariant factors are controlled for, which improves the model fit substantially (more than 15 times better than OLS).

POLICY IMPLICATIONS

Clearing pathways for social mobility and building family

The panel results suggest that policymakers have a critical role facilitating a variety of youth-to-adulthood transitions. First, keep education an open system where students can reach as high as they can. Our results show that doing well in school and moving to the next level has a direct effect on life satisfaction. Keeping intergenerational mobility alive and removing circumstantial barriers to academic success is vitally important to lifting youth life satisfaction.

Second, in the transition from school to work, entry into *full-time work* is key. Part-time work and unquestionably - unemployment, do not lead to desirable outcomes on life satisfaction. Part-time work could signal job precarity as there is no steady stream of income to provide the much-needed financial security (Helbling & Kanji, 2017). Secure, permanent jobs are ideal based on the current findings.

Third, the transition from singlehood to marriage should remain an important societal goal. This means designing policy to encourage marriage and parenthood. This might require strategies to better manage the delicate balance between work life and family life and policies that facilitate an optimal balance of both (Brinton & Oh, 2019).

Understanding the conditions of full-time & part-time work

We noted in the panel models that entry into full-time work sustains life satisfaction, but entry into part-time work depresses life satisfaction. In order to better understand the reasons for the differences, we analysed a panel sub-segment of 1,284 youths in 2019 who were working as full-time employees/self-employed (70%) and part-time employees/self-employed (26%) as well as interns undergoing onthe-job training (4%). We developed three ordinal logistic regression

models. First, we regressed job satisfaction on work motivators and hygiene factors such as autonomy at work and having challenging tasks. Second, we regressed job stress on work-related stressors. Third, we regressed life satisfaction on job satisfaction and job stress. In each of these models, we tested the interaction effects of different employment transition pathways undertaken by youths, using full-time employees as the comparison group.



Satisfaction with work contributes positively to overall life satisfaction

Two in five youths (38%) who have transitioned from school to work continue to be happy with their lives. Among these youths in employment, 83% are satisfied with their jobs. **Table 4** below shows that this trend is consistent across all employment types, and

especially among youths working full-time. Indeed, some scholars have argued that life satisfaction is an important outcome, and that work is intrinsic to human flourishing (Erdogan et al., 2012; Haar et al., 2014; Hagmeier et al., 2018).

TABLE 4: JOB SATISFACTION AMONG YOUTHS BY EMPLOYMENT TYPES

Job satisfaction	Full-time Employee (%)	Full-time Self-Employed (%)	Part-time Employee (%)	Part-time Self-Employed (%)	(-/	AII (%)
Not Satisfied	1	0	9	24	0	3
Neutral	14	5	15	6	24	14
Satisfied	85	95	76	71	76	83

Note

Chi-square test significant at p<0.01 level.

Having "positive challenge" and "autonomy" at work rank as the most salient factors contributing to job satisfaction – 80% who find work to be a positive challenge and provides autonomy are satisfied with their jobs (Table 5). Moreover, youths feel that getting a good job denoted by career advancement and gaining relevant skills and experience

are more important than staying employed in any job (Kalleberg, 2011), which suggests that they are constantly looking for better opportunities and personal growth. Indeed, even in the throes of the COVID-19 pandemic, some youths are quitting their jobs because they want to do something more meaningful with their lives (Tang, 2019).

TABLE 5: EFFECT OF POSITIVE CHALLENGE & AUTONOMY AT WORK ON JOB SATISFACTION (%)

	Job Satisfaction				
		Not Satisfied	Neutral	Satisfied	
Work provides challenge	Disagree	59	26	14	
& autonomy	Neutral	11	52	37	
	Agree	4	16	80	

Notes

Chi-square test significant at p<0.01 level.

Furthermore, according to our STEPS data, full-time self-employed youths derive greater job satisfaction than all other groups from earning a higher income (up to \$5,000). On average, youth panellists who are self-employed on a full-time basis earn more than \$3,000. From an examination of the occupation types, many of these full-time self-employed youths engage in professions such as financial

advisors where income is a direct indicator of career success and hence, achieving higher income may translate directly to higher job satisfaction. Interestingly though, the job satisfaction that is driven by income earned does not necessarily mean more satisfaction with life (Figure 3).

[&]quot;Positive challenge" is measured on a 5-point agreement scale via the statement: "I find my work to be a positive challenge".

[&]quot;Autonomy" is measured on a 5-point agreement scale via the statement: "I am in a position to do mostly work I like".

FIGURE 3: REGRESSION ESTIMATES OF JOB SATISFACTION, JOB STRESS & LIFE SATISFACTION (NORMALISED 5-POINT SCALE) BY EMPLOYMENT TYPE



About two in five (43%) of youths who say they are satisfied with life are stressed at work (**Table 6**), citing conflicting job demands and to lesser extent lack of work-life balance as contributing factors (**Table 7**). On the other hand, only half of this number (21%) among

those satisfied with life are not stressed about their jobs. Except for the part-time self-employed, it would appear that youths who experience less stress from work actually have lower life satisfaction.

TABLE 6: DIFFERENCE IN JOB STRESS OBSERVED AMONG YOUTHS OF DIFFERENT EMPLOYMENT PROFILES WHO ARE SATISFIED WITH LIFE

Stressed about job	Full-time Employee (%)	Full-time Self-Employed (%)	Part-time Employee (%)	Part-time Self-Employed (%)	Intern (%)	AII (%)
Disagree	17	24	30	47	12	21
Neutral	36	24	35	41	47	36
Agree	47	52	34	12	41	43

Notes

Chi-square test significant at p<0.01 level.

Overall sample represented in Table 6 are based only on youths who are satisfied with their life. They are further segmented by their employment status to observe the differences in job stress.

"Job Stress" is measured on a 5-point agreement scale via the statement: "My job makes me stressed".

This could indicate that having some degree of job stress is a good thing and that it is important for overall life satisfaction. Job stress typically comes from multiple responsibilities and demands which arise from greater involvement required and opportunities available from full-time work. Consequently, part-timers (including gig workers) may feel less fulfilled in life due to underemployment (MacDonald & Giazitzoglu, 2019). Some perform gigs doing food delivery, as service

crew and retail staff while others fill in as administrative assistants, do door-to-door sales, and give private tuition. In the case of part-time self-employed youths, it could also be a deliberate choice to avoid the stress attendant in regular full-time work. In fact, 50% of panellists hold on to the belief that life must be enjoyed to the fullest ("You Only Live Once" mantra) and 56% say they are enterprising sorts of people.

TABLE 7: EFFECT OF CONFLICTING DEMANDS & LACK OF WORK-LIFE BALANCE ON JOB STRESS (%)

		Stressed	Stressed about job			
Conflicting demands & no work-life balance		Disagree	Neutral	Agree		
	Disagree	34	34	31		
	Neutral	14	51	35		
	Agree	10	22	68		

Notes

Chi-square test significant at p<0.01 level.



[&]quot;Conflicting Demands" is measured on a 5-point agreement scale via the statement: "My job often involves conflicting demands".

[&]quot;Lack of Work-life Balance" is measured on a 5-point agreement scale via the statement: "I have difficulty balancing my work and other activities".

[&]quot;Job Stress" is measured on a 5-point agreement scale via the statement: "My job makes me stressed".

POLICY IMPLICATIONS

Continue to meet youths' traditional career aspirations and support them in their entrepreneurial pursuits on a full-time basis.

By-and-large youths will aspire to full-time jobs after they graduate from school. And it prevails that this aspiration continues to be fulfilled for the majority three quarters of them, including a few who take on internships in preparation for full-time positions.

Compared with part-time employees, youths employed in full-time jobs enjoy better incomes and higher job satisfaction. While they do experience more job stress, it spurs them on more than it detracts from their lives. Consequently, this higher quality of work life results in a happier life overall.

In terms of self-employment, youths who do it on a full-time basis similarly fare better in the work domain and elsewhere compared to those who do so on a part-time basis. More can be done to encourage youths to pursue entrepreneurial passions and make it possible for them to carry out their new ventures on a full-time basis, such as pairing them up with experienced mentors who can provide guidance, management skills, and counsel (St-Jean & Audet, 2009).

Focus attention to empower youths in the gig economy and help disenfranchised part-timers' transition to full-time employment

A non-trivial number of youths have transitioned from school to part-time work. Some may have had little choice due to the unfavourable economic conditions since 2017 or their circumstances (such as having to be a caregiver). Others may have been attracted by the allure of lower job stress associated with flexible work. Or it could have been a bit of both. Nonetheless, this deep dive highlights the potentially damaging socio-economic effects of this pathway. Part-time gigs often underpay, resulting in those employed in such work arrangements struggling to afford basic living expenses (MacDonald & Giazitzoglu, 2019).

Part-time employment, while less stressful, is also less satisfying and offers less fulfilment in life. The lack of an optimal level of stress may also breed a cadre of less-driven youth workers over time. The absence of a direct relationship between work-life balance and job satisfaction reinforces this insight. Less job stress and more work life balance may not necessarily provide the growth conditions necessary for youths to gain mastery in their occupations, find meaning in their jobs and consequently in their lives. Other motivating work factors like positive challenge and autonomy are more important and are readily found in full-time employment.

68% of working youths report at least one form of underemployment⁴. Targeted help could be given to heterogeneous groups amongst them to transition to full-time work. Our STEPS data indicate that graduates from ITEs, polytechnics and private education institutions are often less confident in their qualifications allowing them to secure a job in their chosen field while students from the autonomous universities and foreign graduates may sometimes feel that what they have learned in school is not sought after by employers in terms of specialised skills and/or industry-specific knowledge. Alternatively, despite the economic fallout from the COVID-19 pandemic, the labour market for social services is still tight and could provide youths with opportunities for fulfilling roles and work experience.

For part-time self-employed youths who may so choose to remain as gig workers, assistance can come in the form of introducing legislation to better protect their welfare and improve work hygiene conditions to motivate them. At present, gig workers have minimal or no CPF contributions, are cash strapped, and have little bargaining or collective power, which "leaves them at the mercy of companies when incentive structures are changed without prior consultation" (Yuen, 2021). In situations such as the COVID-19 pandemic, these youth workers are most vulnerable (ibid).

⁴"My pay is less than other people with similar credentials"; "Given my credentials, I should have a higher position at work"; "The income from my job is not enough to cover my basic living expenses"

External macro conditions, local solutions

Having examined the impact of youth-to-adulthood transitions on life satisfaction, the challenges posed potentially by the global environment as well as conditions of work that affect these transitions, we now turn to the extent to which local conditions can be shaped to boost the life satisfaction of youths. Can Singapore do something within our borders to mitigate the effects of widespread global forces on life satisfaction among youth?

In **Table 8**, we add to the panel models a list of time-varying local 'social compact' factors, and estimate their impact on life satisfaction between Waves 2 and 3. Adding the social compact factors in Model 2, we see that the time coefficient (represented by the 2019 time dummy) decreases in magnitude from β = -1.28 (in Model 1) to β = -.72 (in Model 2) yet retains statistical significance (at the .001 level), which means there are other time-varying factors not yet captured by the model that could potentially explain life satisfaction. These could be local or global factors, apart from the factors measured below.

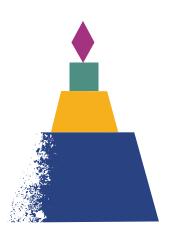
The coefficients in Model 2 reveal that job creation, quality of life, racial harmony, and education are vital ingredients at the local level for attenuating the downward pull of macro conditions on life satisfaction.

Equally interesting are the factors that are not significant such as job security. It is noteworthy that job creation has a greater impact than job security in shaping life satisfaction, suggesting that for young adults, a vibrant economy with new jobs and job opportunities would be more valuable than merely holding on to a secure job. Job creation signals for youths that the economy is being constantly reinvented and that the future is one to look forward to.

Quality of life registers strongly as a predictor of life satisfaction. To us, this indicates that youths are not happy merely to get by or 'survive', but rather to flourish. Youths aspire to go beyond basic sustenance into flourishing and growth (Keyes, 2006).

Racial harmony at the local level is important for life satisfaction. Singapore has had a history of racial riots and tensions. Order on this front is considered critical for youths to know that this is a place of stability that they can bank the future on (Ho, 2018).

Education is one pillar in the quest for social mobility and it is the young in particular that would find this so important to their future prospects. Education gives them the foundation for starting out in a career and sends a "signal" to employers that they would be valuable employees (Spence, 1973).



- TABLE 8: PREDICTORS OF LIFE SATISFACTION (INCLUDING SOCIAL COMPACT FACTORS)

		Model 1	Model 2
Period effects	2019	-1.28*** (t-stat = -11.77)	72*** (t-stat = -5.42)
	(2018 = Reference)		
Social compact factors ^a	Law and order		06
	Economic growth		.01
	Job creation		.23*
	Job security		.04
	Quality of life		.46***
	Political stability		16
	National security		.22+
	Housing		.02
	Public housing		.03
	Racial harmony		.30***
	Integrating foreigners		.13
	Education		.28**
	Healthcare		03
	Welfare for poor		.00
	Work-life balance		.11
	Raising children		.03
	Providing eldercare		.01
	Constant		20.34
	Rho		.65
	Number of cases		6,198

Notes

Mean VIF = 1.93 confirms no multicollinearity.

a. Question asked "How satisfied are you with the Government's performance in these policy areas over the last 12 months?". All responses range from 1 (Very dissatisfied) to 7 (Very satisfied).

⁺P<.10,*P<.05,**P<.01,***P<.001

Time varying variables estimated but not shown here: Education transition, Marital status transition, Employment transition.



The motivation of this chapter is to understand the factors that influence life satisfaction for youths in Singapore and perhaps the acronym ATM is useful to summarise the key findings: "A" means Attributes. We found that factors such as gender, race, and class mattered significantly for life satisfaction, e.g., minority Malays and Indians scored higher on life satisfaction than Chinese. "T" means Transitions. We found clear evidence using a panel approach to show that pathways of mobility, whether moving through school, finishing school, and moving into the world of work, and/or transiting into marriage, to be especially salient predictors of life satisfaction.

We also looked into the conditions of work that boost job satisfaction and found full-time employment to significantly boost life satisfaction. Attributes (A) and Transitions (T) are set against the effects of time (ageing) as well as Macro conditions (M) that include recent events in economy and society that seem to have driven life satisfaction down among youths. Yet there is much that governments and policymakers can do to give youths the best chance, by keeping pathways to education open, by creating job opportunities, and by making Singapore the best place to raise a family.

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