

Analysis of Insurance Adequacy by Age Groups

20 August 2009

Dr David YEE

Assisted by

Kristine Loh Chin Chin & Ellen Yong Xin Yi.

Summary

- Report 2006 focused on average amount for working population
- This report uses illustration to estimate amount of under-insurance for each age group
- Report 2006 approach not usable as various assumptions have to be made
 - resulting in loss of credibility of report.

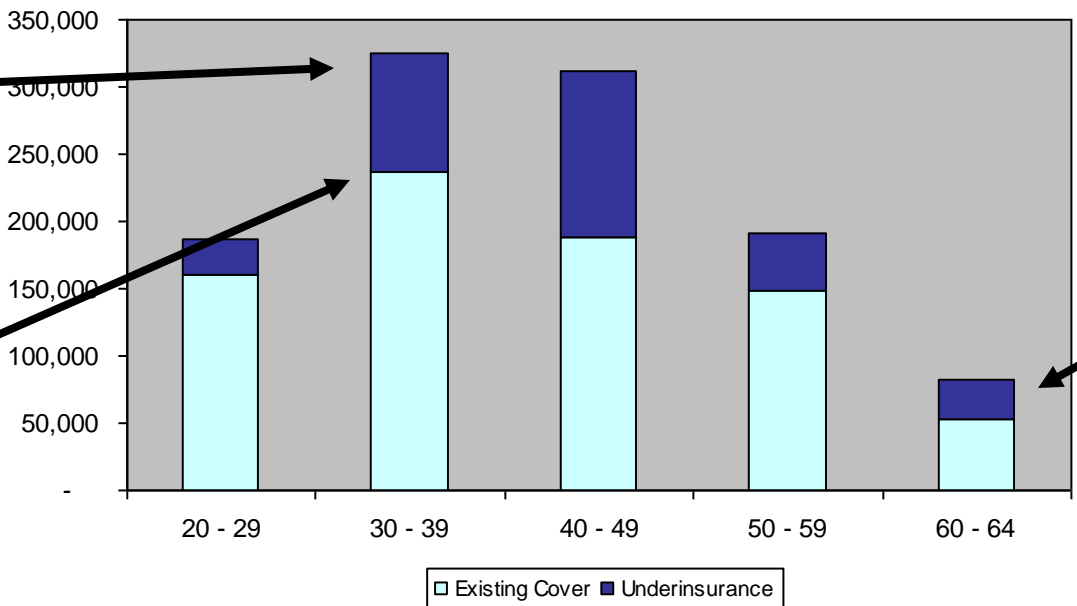
- This report **updates** amount for
 - **Income growth**
 - **Expense inflation** & **loan**
- **Updated** figures for **Sum Insured** for
 - Group term life insurance
 - Personal term & whole life insurance
 - DPS coverage.

- Unlike Report 2006, this report also includes mortgage insurance & CPF Savings as part of existing assets
- This works out estimated amount of under-insurance to \$526 billions (\$578 billions in Report 2006) or \$329,223 per person (\$361,997 in Report 2006)
 - which is 67% (75% in Report 2006) of protection needs requirement.

- For male working adults
 - insurance needs peaks in age groups of 30-39 & 40-49
- Insurance ownership in absolute terms highest for 30-39
 - However, gap is widest
 - due to greater protection needs.

- **Figure 13** shows **needs** & existing **cover** by age group while **Figure 14** shows split in %
- Overall 'shape' of **needs** & **cover** similar
 - 2nd age group (**30 to 39**) shows **highest** needs & cover
 - Last age group (**60 to 64**) shows **lowest** needs & cover.

Figure 13: Needs and Existing Cover by Age Group

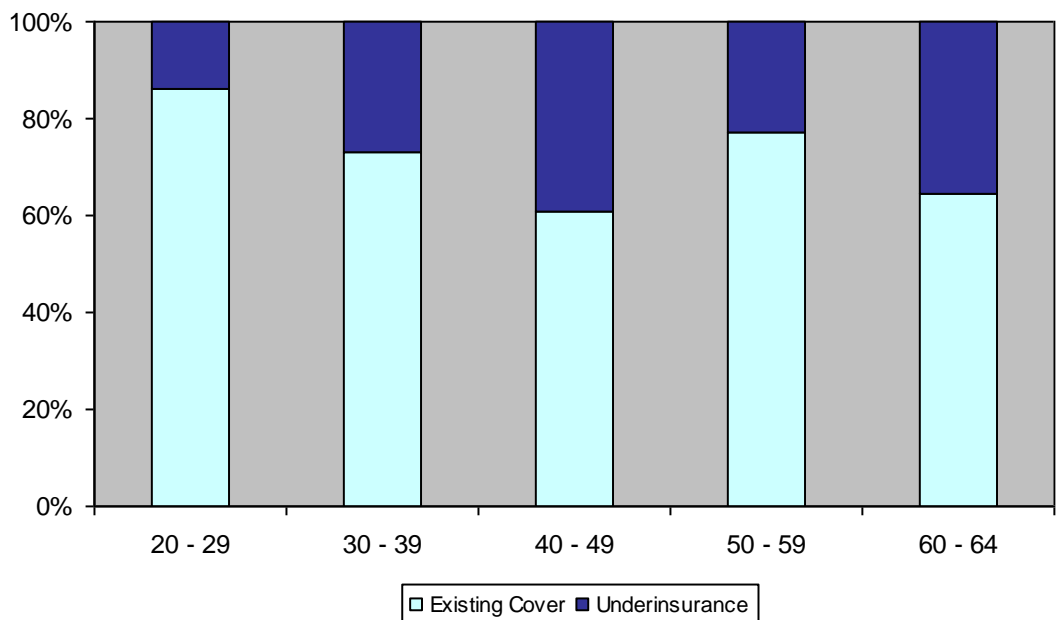


Highest need

Highest cover

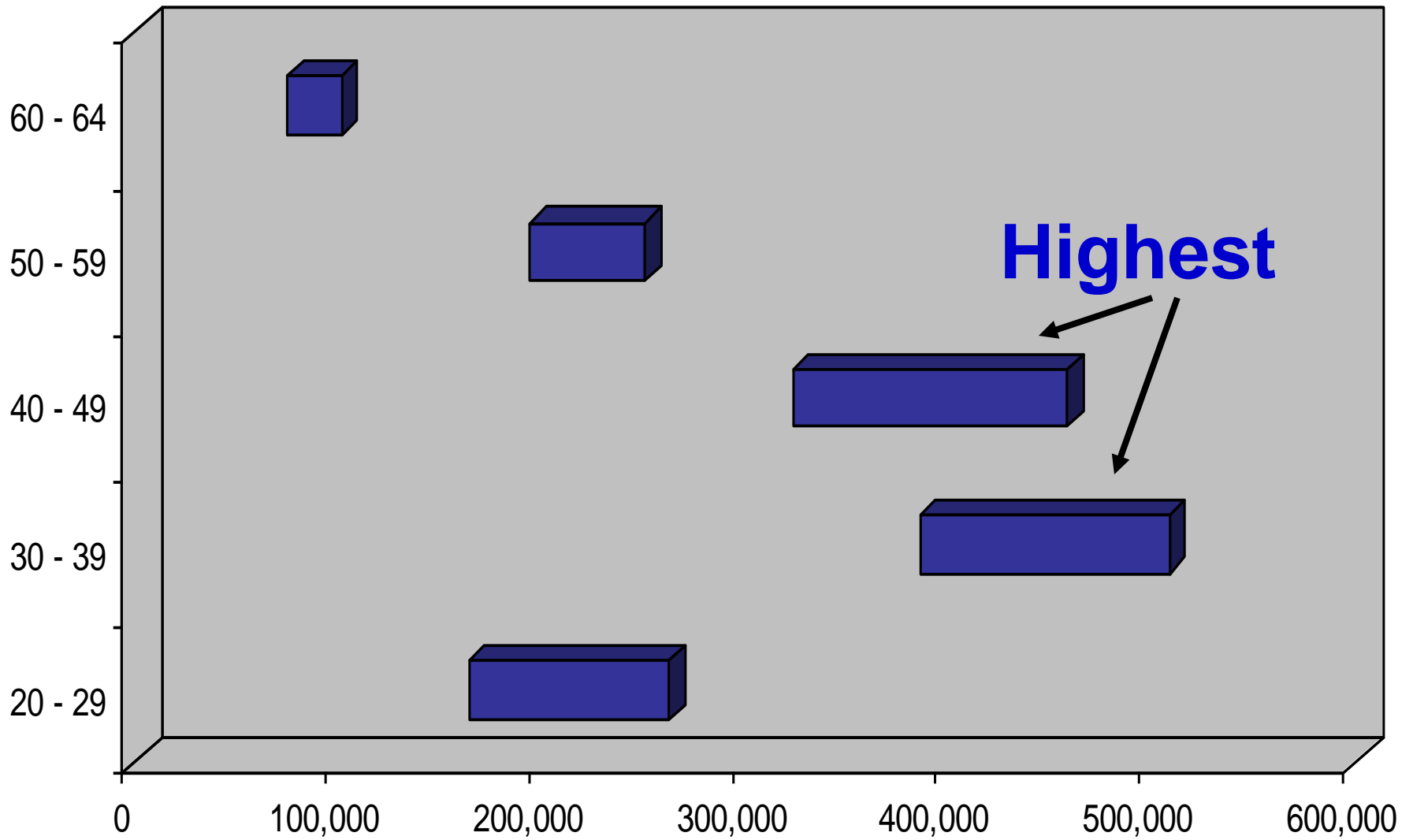
Lowest need & cover

Figure 14 : Split of Needs and Existing Cover by Age Group



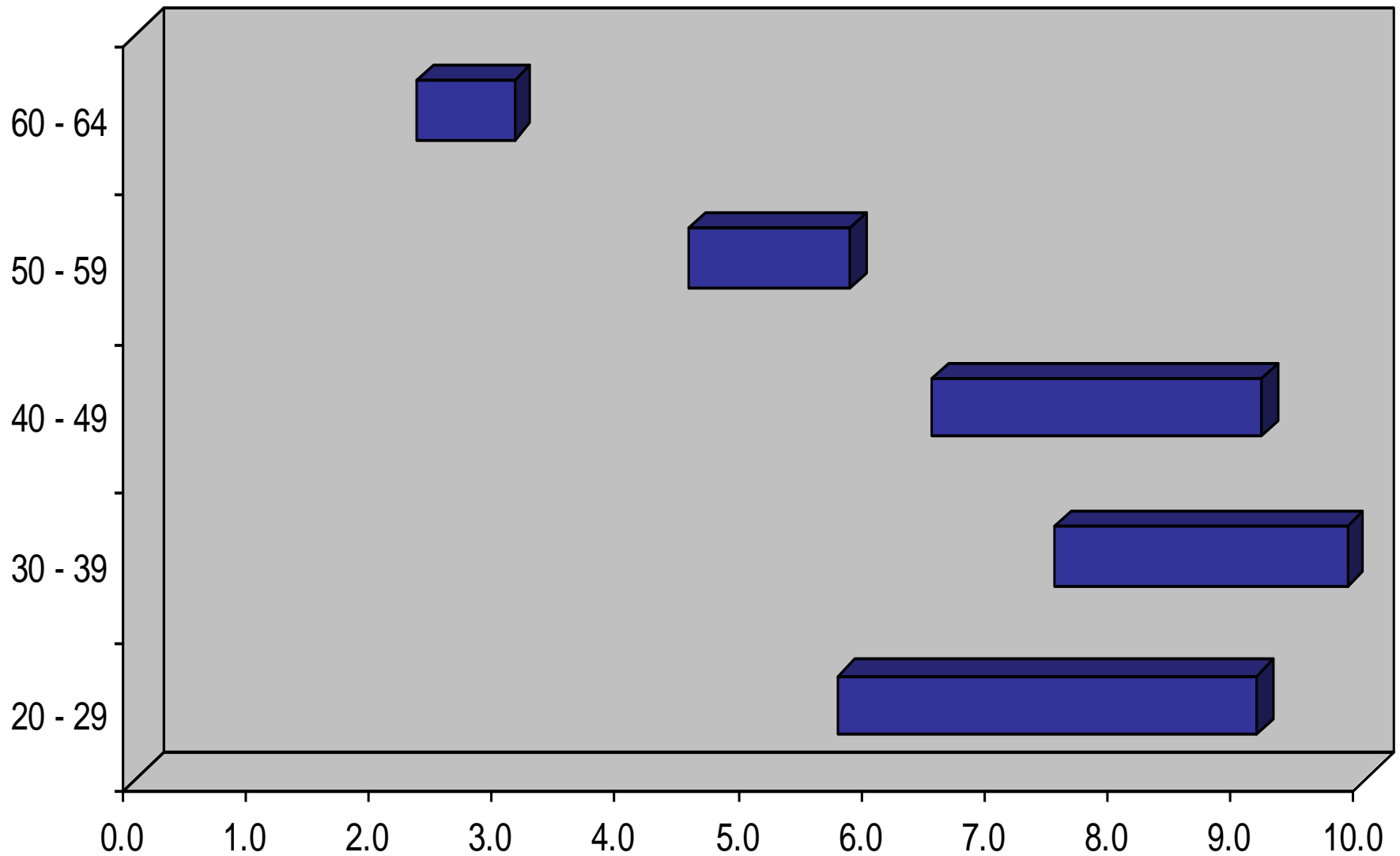
- Figure 7 shows range of protection needs computed for males
- Protection needs highest in 30-39 & 40-49
 - male working adults have highest earning power & dependants expected to depend for longer period relative to other age groups.

Figure 7 : Ranges of Needs by Age Group - Male



- Figure 8 shows range of protection needs computed for males
 - in multiples of his personal income.

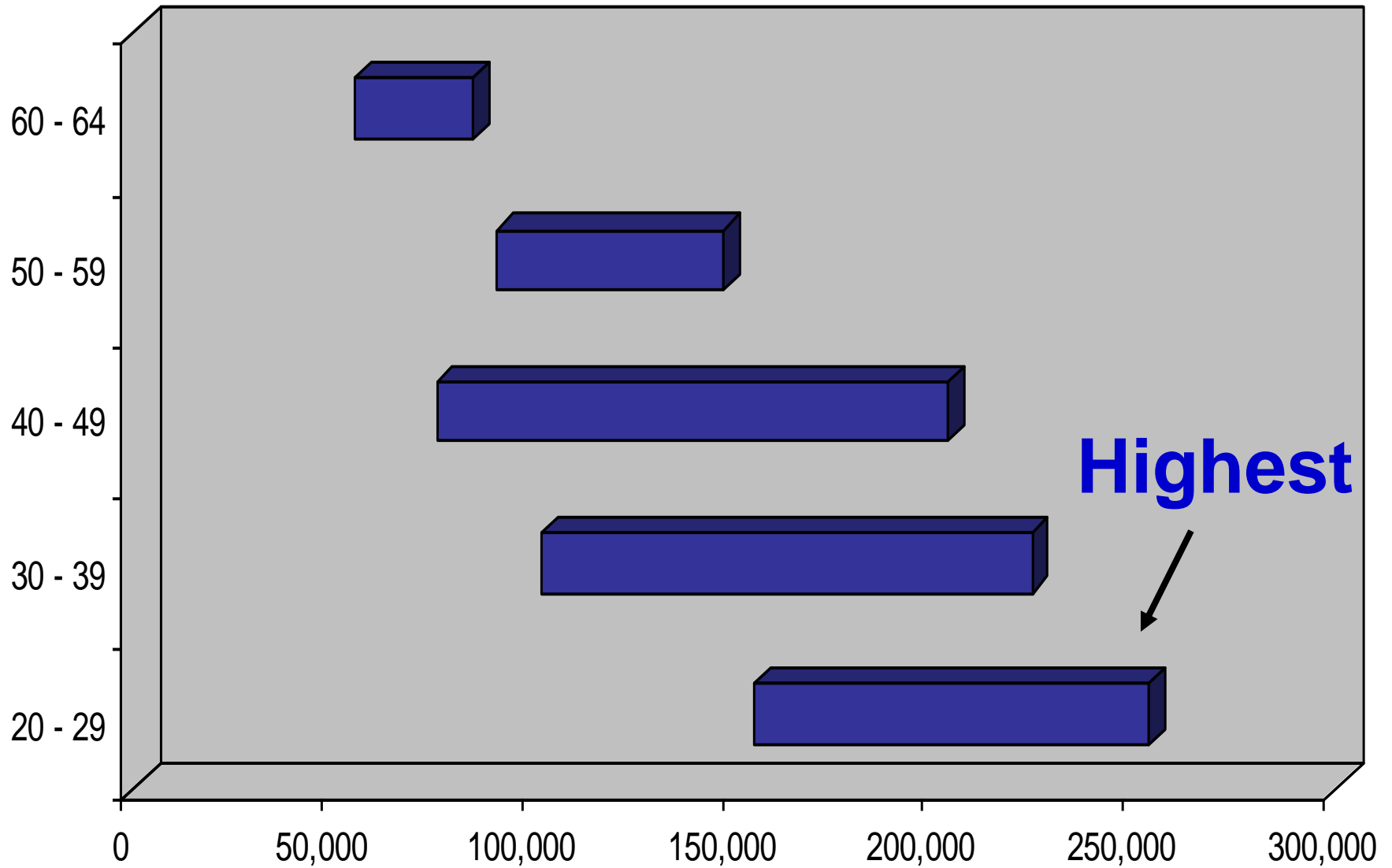
Figure 8 : Ranges of Needs-Income Ratio by Age Group - Male



Protection Needs of Female Working Adults by Age Groups

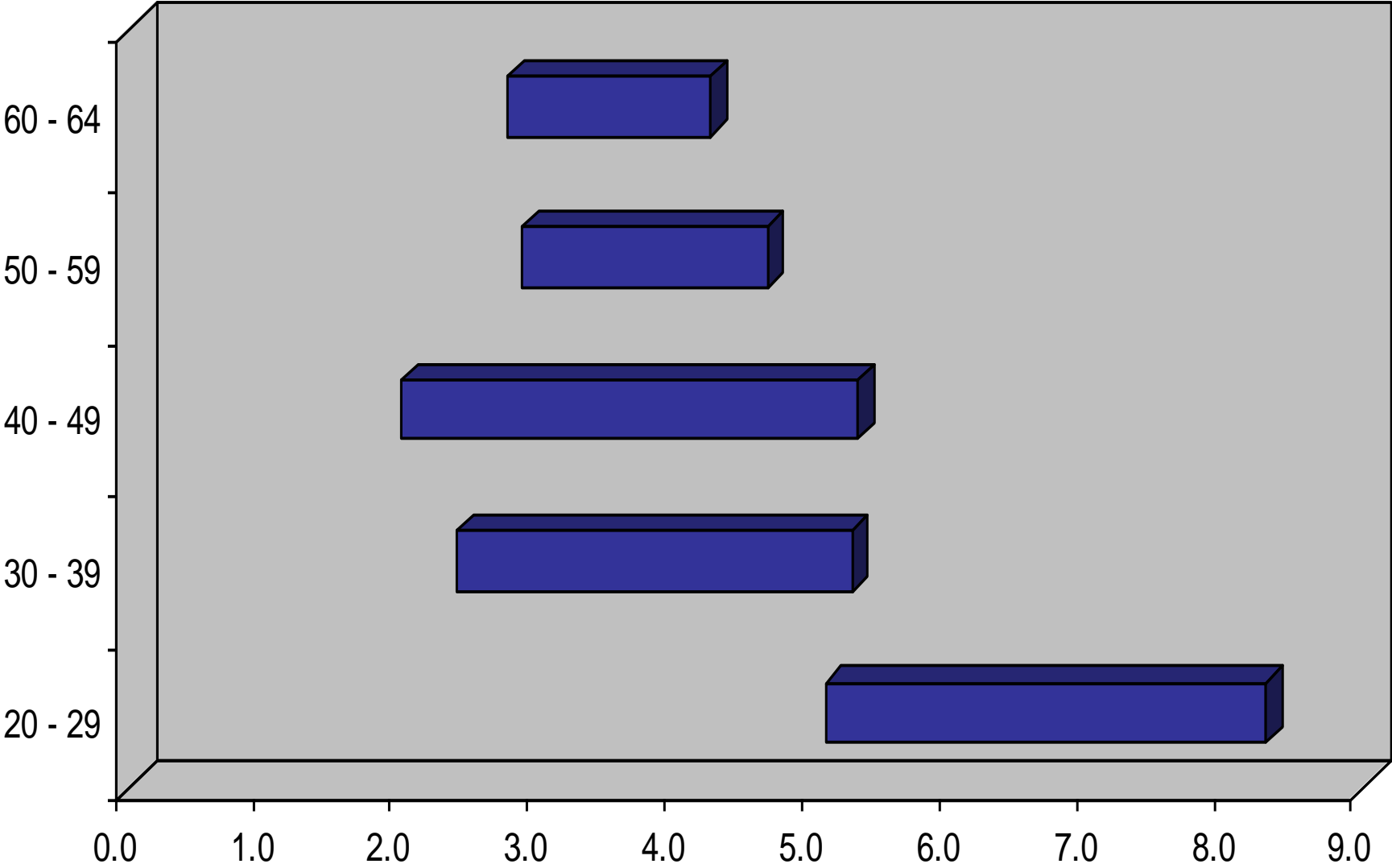
- Figure 9 shows range of protection needs computed for females
- Protection needs highest in **1st group**
 - Where female working adults earns income closer to & higher than spouse
- In later age groups, male spouse more dominant breadwinner
 - Hence financial burden of protection shift away from female.

Figure 9 : Ranges of Needs by Age Group - Female



- Figure 10 shows range of protection needs computed for females
 - in multiples of her personal income.

Figure 10 : Ranges of Needs-Income Ratio by Age Group - Female



Introduction

- Purpose of this report is to revise key figures with new information
 - as well as to provide more detailed investigation
 - by analysing relative position of insurance needs in broad age groups.

- This allows Singaporeans to be more aware of protection **adequacy**
 - based on **typical households** in their age groups
 - also enables insurance companies to have more **targeted marketing** campaign.

Approach

- In Report 2006, 'average' approach employed
- Average household determined through proportion of aggregate population that is children, working adults, non-working adults, senior citizens, etc.
- Insurance adequacy of average working adult obtained through examining needs arising out of this average household.

- In this report, we need to segment analysis by broad age groups
- As a result, limited secondary data means numerous assumptions have to be made to allocate population in those age groups into different categories
- Hence, instead of trying to determine what composition of average household in each age group is
 - we use 'typical' households to illustrate & examine degree of under-insurance in each age group
 - For example, for **20-29**, household sizes of **2 & 3** (modal household sizes for that age group) chosen.

- After identifying typical households in each age groups & the necessary characteristics
 - We use same methodology in Report 2006 to calculate protection needs of working adult in each of these households
- This allows us to investigate relative degree of protection needs & insurance adequacy of various age groups.

- While we use same methodology, it can be observed that in Table 9, none of the working adults illustrated have protection needs that comes up to Report 2006's average figure of **11.3 times income**
- This is because in Report 2006, there is a **0.622 non-working adult** who is **dependent** on working adult
- This person contributes to household **expenditure**, but **not** to household **income**
 - & expected to **remain dependent** on working adult has pre-mature death not occurred.

- In Update, because of limited secondary data to quantify no. of such non-working adult in each age group
 - We select typical households without such non-working adult
- Hence, income needs lower as there is no financial dependency from such persons
- Consequently, protection needs calculated is lower across the board.

- An example of how additional dependant non-working adult increase protection needs is shown in Appendix D
- It could also be possible that average characteristics of population used in Report 2006 masked some *extreme* outliners not present in our typical households
 - which are chosen to make sense.

Updating Report 2006

- To reflect expected income & expense growth over the year, we adjust protection needs figure in Report 2006 with following indices:
 1. Income growth of 2.7% per annum
 2. Expense inflation of 2.4% per annum
 3. Growth in ratio of outstanding loan to personal disposable income of 8.8% per annum.

- We use latest 'in force sums insured' & 'policy counts' as at Dec 2006 for group term life, personal term & whole life insurance & DPS provided by LIA to update existing life cover
- In addition, we also consider mortgage insurance & CPF savings
- Other than above, we use same methodology & demographic composition as in Report 2006.

- Updated figures show protection needs has increased by \$14,408 from \$480,443 to \$494,851
 - after adjusting for a year of wage & expense inflation
- Existing life insurance cover, taking into account mortgage insurance & CPF savings which was not considered in Report 2006, increased by \$46,989 from \$118,639 to \$165,628
- It should also be noted that group term cover figure provided by LIA dropped significantly from what was reported in 2006.

- The overall under-insurance figure decreased by \$32,580 from \$361,803 to \$329,223
 - mainly due to inclusion of CPF Savings
 - not considered in Report 2006
- Across working population aged 20 to 64
 - aggregate under-insurance gap decreased from \$578 billion to \$525 billion.

Conclusion

- In Report 2006, it is quantified that average working adult is under-insured by \$361,997 or 75% of protection needs
- Among population, it is not known which age group is more under-insured
- This is the objective of Update 2007.

- By looking at calculated needs of the set of 'typical households' chosen to stratify those of the working adults
 - We make following observations.

- For male working adults, insurance needs peaks in 30-39 & 40-49
 - This is driven by combination of factors
- 1. Higher income, leading to possibly higher loans & bigger mortgage, & more significantly, greater financial reliance from dependants
- 2. Greater no. of dependants, including younger children who are not financially independent yet, & ageing parents who may not have sufficient retirement funds
- 3. Non-working spouse or working spouse whose income is likely to be lesser & hence financially dependent on male working adult's bigger paycheck.

- For female working adults, insurance needs peaks in early start of career
- This is driven mainly by the fact that her income is closer to that of her spouse
- In later age groups, male spouse tend to have higher income
 - Financial burden of protection shift away from female working adult.

- Update 2007 examines statistics provided by LIA on existing life insurance cover of each age group
 - Major observations include:
- Insurance ownership in absolute terms is highest in age group 30-39
 - driven by greater amount of personal & group term life insurance per person.

- Overall 'shape' of existing insurance is similar to that of protection needs of working population
 - with middle age groups having higher protection needs but at the same time, owning greater coverage.

- By combining analysis of protection needs of typical households & knowledge of existing coverage among different age groups
 - We conclude that if illustrated households come close to true average households
 - working population aged 30-49 are most under-insured in absolute terms
- Even though aggregate sums insured for this age group already highest in population
 - Gap still widest due to greater protection needs.

Investigations

From Department of Statistics

- we estimate protection needs of
 - working adult
 - in various typical households
 - in each broad age group.

Insurance Adequacy

- Working adult's protection needs refers to lump sum required on premature death to satisfy following objective:
- To pay funeral expense & all outstanding debts attributable to the individual
- & to maintain current living standards of dependants
 - for as long as they may be expected to remain dependent on the individual
- “Dependants” refer to spouse, children & parents.

The Typical Households

- A few typical households are chosen to illustrate each age group
- These households have characteristics that are believed to be more common among population households
 - chosen with reference to secondary data
- Appendix A documents the process of defining these typical households.

- Population under examination is **working adults** aged between **20 to 64**
- **Table A1** shows broad age groups & representative working adult's age.

Table A1: Age Group and Working Adult's Age

Age Group	Age
20 - 29	25
30 - 39	35
40 - 49	45
50 - 59	55
60 - 64	62

- Sizes of typical households used in illustration are more common household sizes in each age group as identified in Table A2

Table A2: Distribution of Households by Size and Age Group of Main Income Earner

Household Size	Age Group				
	20 - 29	30 - 39	40 - 49	50 - 59	60 - 64
1	7,501	18,580	28,515	22,755	6,756
2	16,758	48,451	38,982	36,108	14,696
3	9,350	48,410	51,935	52,401	17,356
4	5,186	50,911	88,962	75,276	14,231
5	2,447	34,872	69,052	45,126	6,929
6 or more	1,955	24,990	49,754	26,546	4,921

Source: GHS 2005 Release 1 (Household and Housing), Table 59

- **Table A3** shows **modal** household sizes identified for each age group

Table A3: Size of the Typical Household

Age Group	Household Size
20 - 29	2,3,4
30 - 39	2,3,4
40 - 49	2,3,4,5
50 - 59	2,3,4,5
60 - 64	2,3,4

Table A4: Scenarios

- Besides working adult himself/herself, household in illustration comprises spouse, children &/or parent (s)
- Table A4 shows scenarios used in illustration.

Age Group	Household Size	Composition
20 - 29	2	Couple
	3	Couple+1Child
		Couple+1Parent
	4	Couple+2Child
		Couple+2Parent
Couple+1Child+1Parent		
30 - 39	2	Couple
	3	Couple+1Child
		Couple+1Parent
	4	Couple+2Child
		Couple+2Parent
Couple+1Child+1Parent		
40 - 49	2	Couple
	3	Couple+1Child
		Couple+1Parent
	4	Couple+2Child
		Couple+2Parent
5	Couple+1Child+1Parent	
	Couple+2Child+1Parent	
50 - 59	2	Couple
	3	Couple+1Child
		Couple+1Parent
	4	Couple+2Child
		Couple+2Parent
5	Couple+1Child+1Parent	
	Couple+2Child+1Parent	
60 - 64	2	Couple
	3	Couple+1Child
		Couple+1Parent
	4	Couple+2Child
		Couple+2Parent
Couple+1Child+1Parent		

- Statistics on Marriages & Divorces 2005 reported median age of groom is 3 years older
- Table A5 shows age of spouse in typical households

Table A5: Age of Spouse

	Age of Spouse	
Age Group	Female Perspective	Male Perspective
20 - 29	28	22
30 - 39	38	32
40 - 49	48	42
50 - 59	58	52
60 - 64	65	59

- Report on Registration of Births & Death 2002 reported average age of mother at 1st & 2nd birth is **29 & 31** respectively
 - This means average age of father is 32 & 34 accordingly
- Children **>22** assumed graduated & not depend on working adult.

- In illustration, age of children (if any) is shown in Table A6

Table A6: Age of Children

	Female Perspective		Male Perspective	
Age Group	Age of 1st Child	Age of 2nd Child	Age of 1st Child	Age of 2nd Child
20 - 29	0	0	0	0
30 - 39	6	4	3	1
40 - 49	16	14	13	11
50 - 59	26	24	23	21
60 - 64	33	31	30	28

- For last age group, male spouse has retired & hence not earning income

Table A10: Monthly Income of Spouse

Age Group	Monthly Income (S\$)	
	Female Spouse	Male Spouse
20 - 29	1,910	2,343
30 - 39	2,385	4,251
40 - 49	1,857	4,064
50 - 59	1,131	3,105
60 - 64	312	0

Methodology

- Protection needs of working adult in each typical household is amount that working adult requires for his/her

1. Funeral expense
2. Outstanding loans
3. Dependants' needs

Less contribution from surviving spouse.

Funeral Expense

- In absence of sufficient life cover, surviving members have to sacrifice other needs to cover this
- As in Report 2006, total funeral expense estimated to be \$5,000 to \$15,000 & average of \$10,000 used
- This includes provision for costs of rituals, coffin, government fees, paper effigies, & place in columbarium/cemetery.

Dependants' Needs

Death Payout

- Upon death of insured, payout from life insurance likely to be invested in mix of assets
- As in Report 2006, we use 4.6% as estimate of returns that dependants can earn
- If investment performance turns out worse than 4.6% → greater sum assured required.

Expense Inflation

- [HES, 2002/03] reported average monthly expenditure per person increased 2.4% per annum
- As in Report 2006, we calculate present value of future needs of dependants with inflation rate of 2.4%
- & needs accrue at beginning of year.

Wage Inflation

- [Ng & Yap, 2005] reported change per annum in average monthly per capita household income to be 2.7%
- As in Report 2006, we use 2.7% to approximate growth in future annual income
- Income taken to accrue at year end & retirement at 65.

Needs of Children

Education Route

In Report 2006, it is noted that cost of raising child depends largely on education route child take

- Based on Statistics On Enrollment, Report 2006 estimated probabilities of child aged 17 pursuing each post-secondary school route
- The estimates are reproduced in Table 5.

Table 5: Probability of Education Routes for a Child Aged 17

Route	Probability of a child aged 17 choosing this route
1 Secondary School > Workforce	0.048
2 Pre-University Institution > University > Workforce	0.322 ✓
3 Polytechnic > Workforce	0.437 ✓
4 Polytechnic > University > Workforce	0.048
5 ITE > Workforce	0.145

- In Update Report, we consider the 2 more common routes when estimating needs of children
- Adjusted probabilities are:

Route A: Probability (Polytechnic)
= $0.437 / (0.437 + 0.322) \approx 0.58$

Route B: Probability (Junior College > University)
= $0.322 / (0.437 + 0.322) \approx 0.42$

- Insurance adequacy has several meanings
- We can argue that adequacy merely means basic necessities (basic meals + basic shelter) for survival
- This would not include children's education (also exclude many items that are included in model e.g. housing loan for current house).

- However, we refer to our definition of insurance adequacy :
- "To pay funeral expense & all outstanding debts & to maintain current living standards of dependants ..."
- This means: children's education should be sufficiently supported by both adults without compromising other material goods
 - Hence, children's education is a need in this sense.

- Education fees constitute average of 16% (polytechnic route) & 35% (university route) of total needs of children, depending on age of child
- We estimated education fees at today's dollar for child at each education stage
- University fee estimated to rise at 6% per annum [Tung, 2006].

Needs of Children

Cost of Living

- We estimate annual needs at today's dollar, for child at each education stage.

Needs of Parents

- Typically, adults retire around **65**
 - receive some form of allowance from children
- [Statistics, 1995] reported that if all sources of income & allowances considered, senior citizens aged 65 to 74 had median monthly income of \$455
- We use this as approximation to allowance that working adult provides for parents currently aged 65 to 74.

- [Ng & Yap, 2005] reported average monthly per capita household income has increased from \$857 in 1993 to \$1,482 in 2003
- Using this rate of increase as approximation to growth rate in parent's allowance over 1995 – 2006, 2006 figure for annual needs of parents currently aged 65 to 74 is = **\$9,973**
- Medical expenses & ill-health of parents not considered as they should be covered by other kind of insurances such as health insurances & parent's own life (providing for critical illnesses) insurances.

Needs of Surviving Spouse

- After paying for common expenses such as housing costs & expenses for children & parents
 - likely that couple will share balance of income almost equally among them
- Besides covering basic necessity, this amount includes spending on leisure, entertainment & savings for retirement purpose.

Unpaid Services

- All adults provide some unpaid services which desirably would be replaced in event of death
- [Dunsford, 2005] suggests that in the case of an adult working full time
 - his/her unpaid services are valued at **10%** of average full time earnings.

- This report focuses on working population
- Scope of study is working adults, i.e. both husband & wife working
- Hence, situation where male survives wife (deceased being full time housewife & not working adult) & potentially requires full-time maid to maintain same standard of living not within scope of this study.

- In situations where female is working adult
 - providing **10%** of income (as suggested by Rice Walker) should adequately cover cost of part-time helper.

Surviving Spouse' Income

- Surviving spouse assumed to continue working in same job till 65
- Furthermore, income generated will go towards paying cost of raising children & supporting parents & his/her own needs
- Hence should be subtracted off value of needs.

Protection Needs Model

Table 8: Protection Needs Requirement

Section	Item
3.1	+ Funeral Expense
3.2	+ Outstanding Loans
3.3	+ Dependants' Needs
3.3.1	<i>Needs of Children</i>
3.3.2	<i>Needs of Parents</i>
3.3.3	<i>Needs of Surviving Adults</i>
3.3.4	<i>Unpaid Services</i>
3.4	- Surviving Adults' Income

Changing Circumstances

- Assessment of needs focuses on current needs
- Inevitably, needs may change where surviving partners form new relationships or move to other careers
- Given uncertainty of such changes, illustrations based on current circumstances.

Protection Needs of Households

- Since we cannot determine true average household of each age group
 - next-best alternative is to understand protection needs of each age group by looking at typical households in those age groups.

Number of Children

- Figure 1 to 3 show computed protection needs of male working adult in each household by age group & no. of children.

Figure 1 : Needs By Age Group and Number of Children

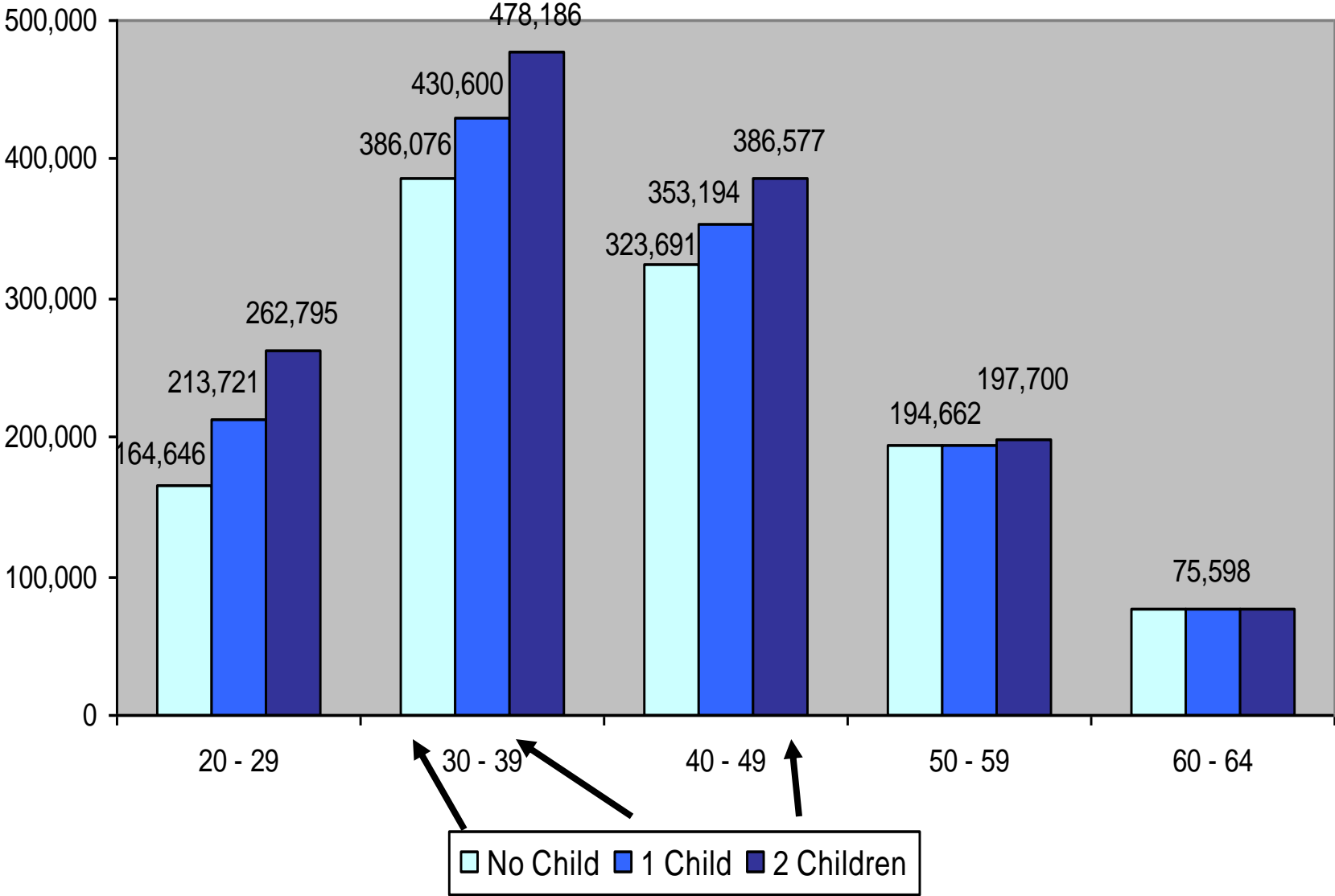


Figure 2 : Needs By Age Group and Number of Parents

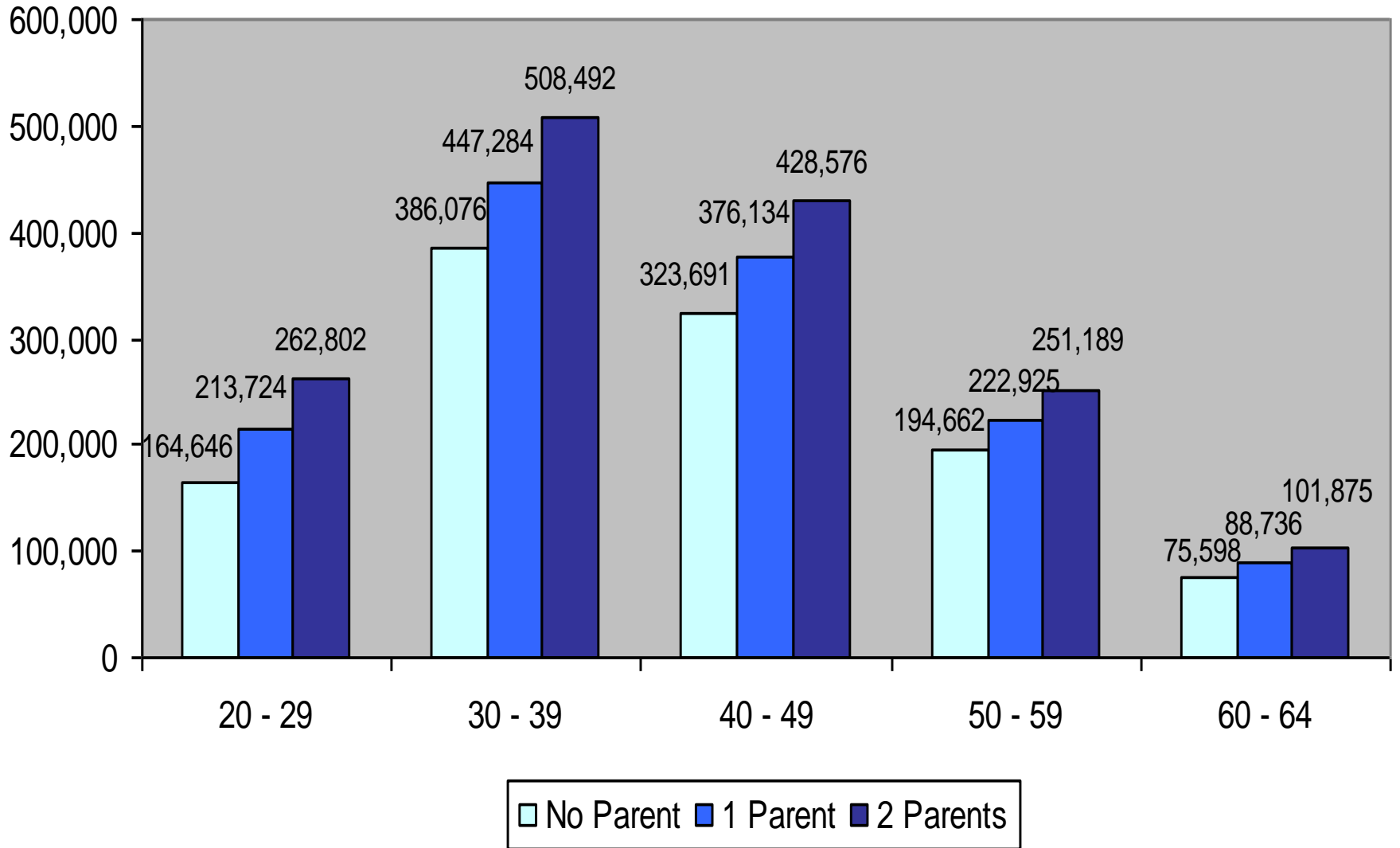
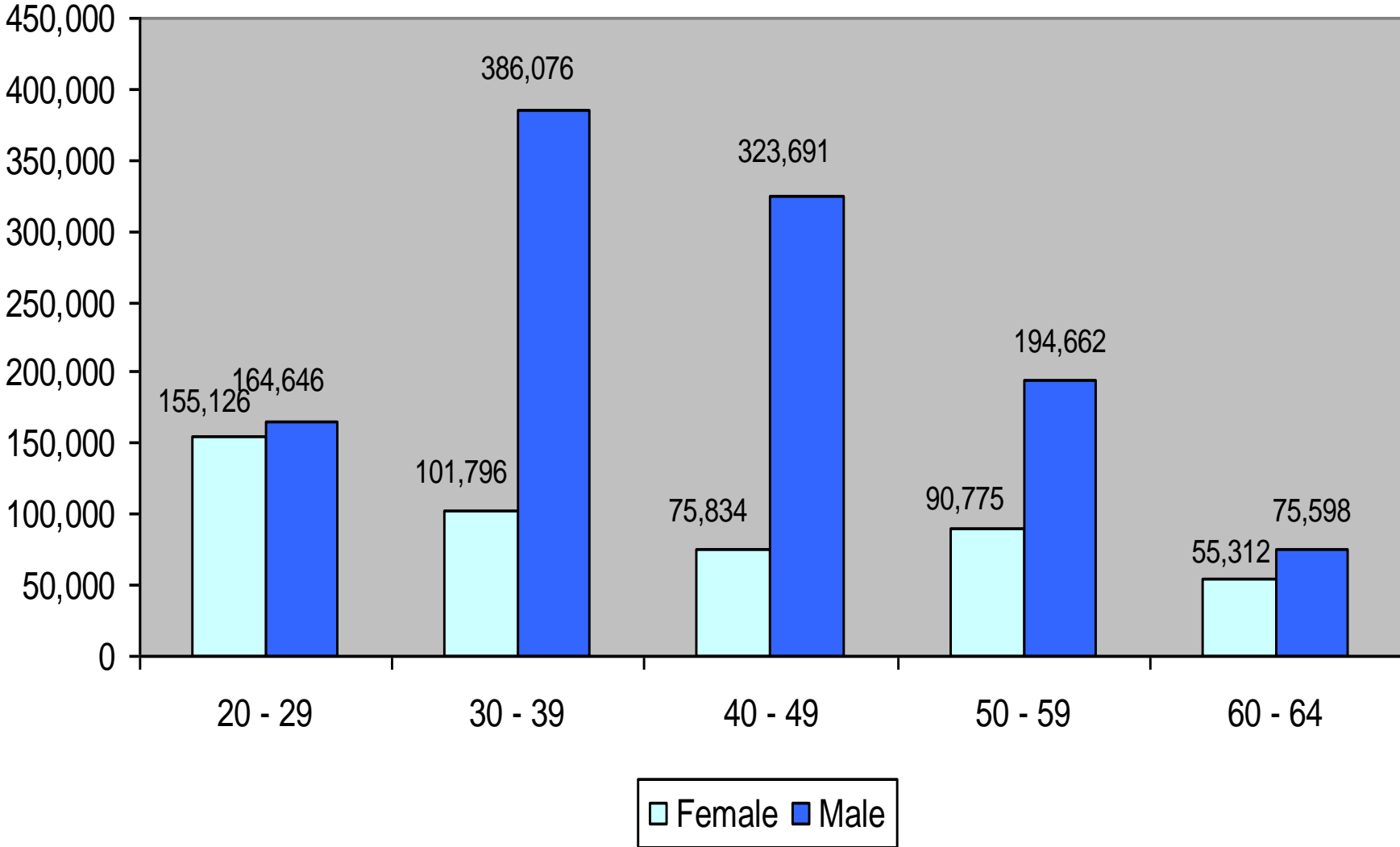


Figure 3 : Needs By Age Group and Gender of Working Adult



- It is usual that males are advised to buy more life insurance
 - computed results agree with this
- For example, for 35-year-old male working adult staying with only his 32-year-old wife
 - he is expected to require about 3 times more life cover than 35-year-old female working adult staying with only her 38-year-old husband.

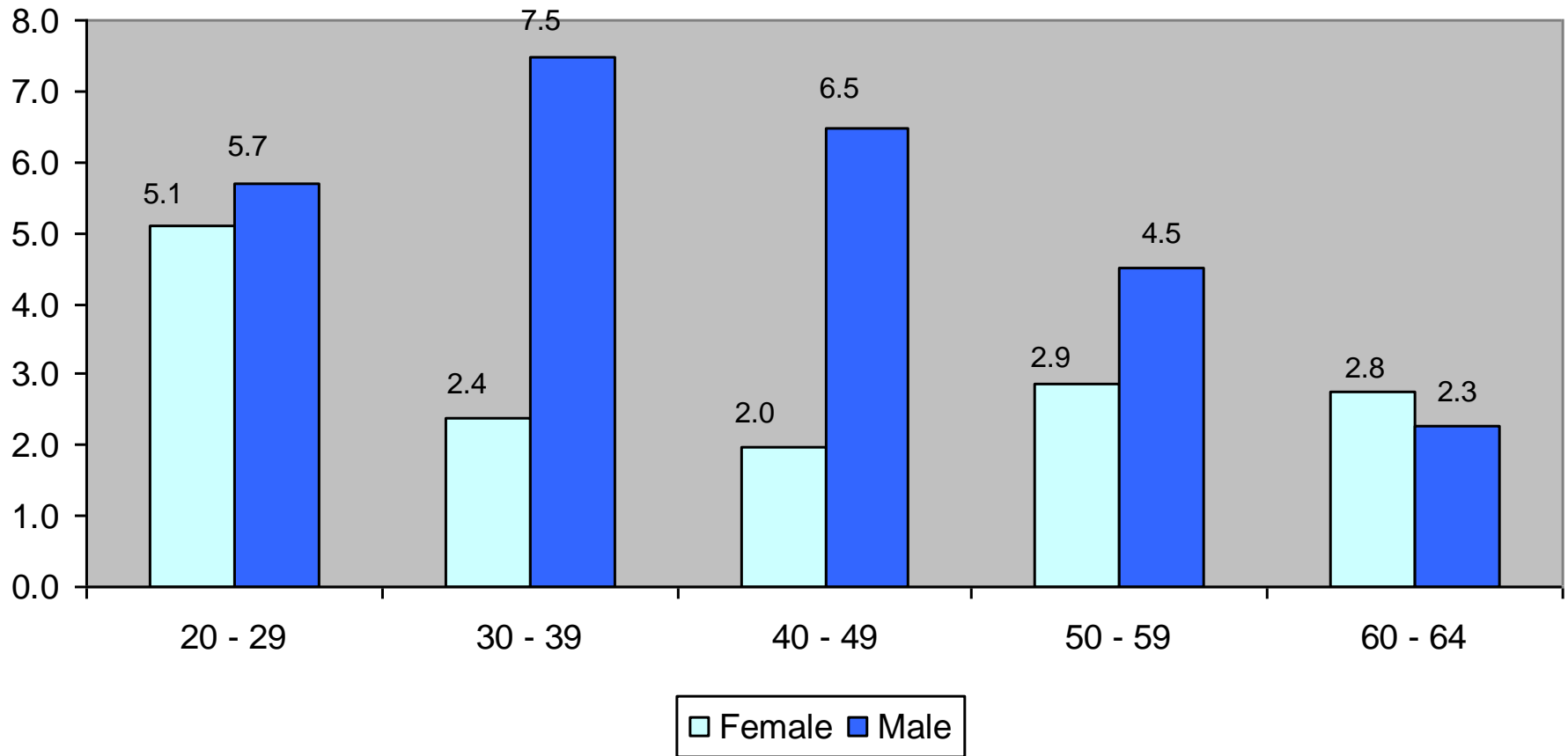
- This is because of following reasons:
- Male has higher income → personal loans expected to be higher
- Unpaid services, which is taken to be function of personal income, higher as well.

- Surviving partner's needs has to be provided for longer no. of years since male's spouse younger
- More significantly, female surviving partner contributes less to household after death in absolute terms
 - because of her lower income.

- In general, income gap between working adult & his/her spouse is main driver behind difference in insurance needs of gender
- This is obvious in the 3 middle age groups
 - where male working adult earns significantly more
- Difference is highest for **30 to 39** where income needs have to be provided for longer period of time for the female spouse.

Figure 4 shows needs expressed in multiples of working adult's personal income

Figure 4 : Needs-Income Ratio By Age Group and Gender of Working Adult



- For female working adults
 - Needs highest in 1st age group (**20 to 29**)
 - where her income is closest to & higher than spouse

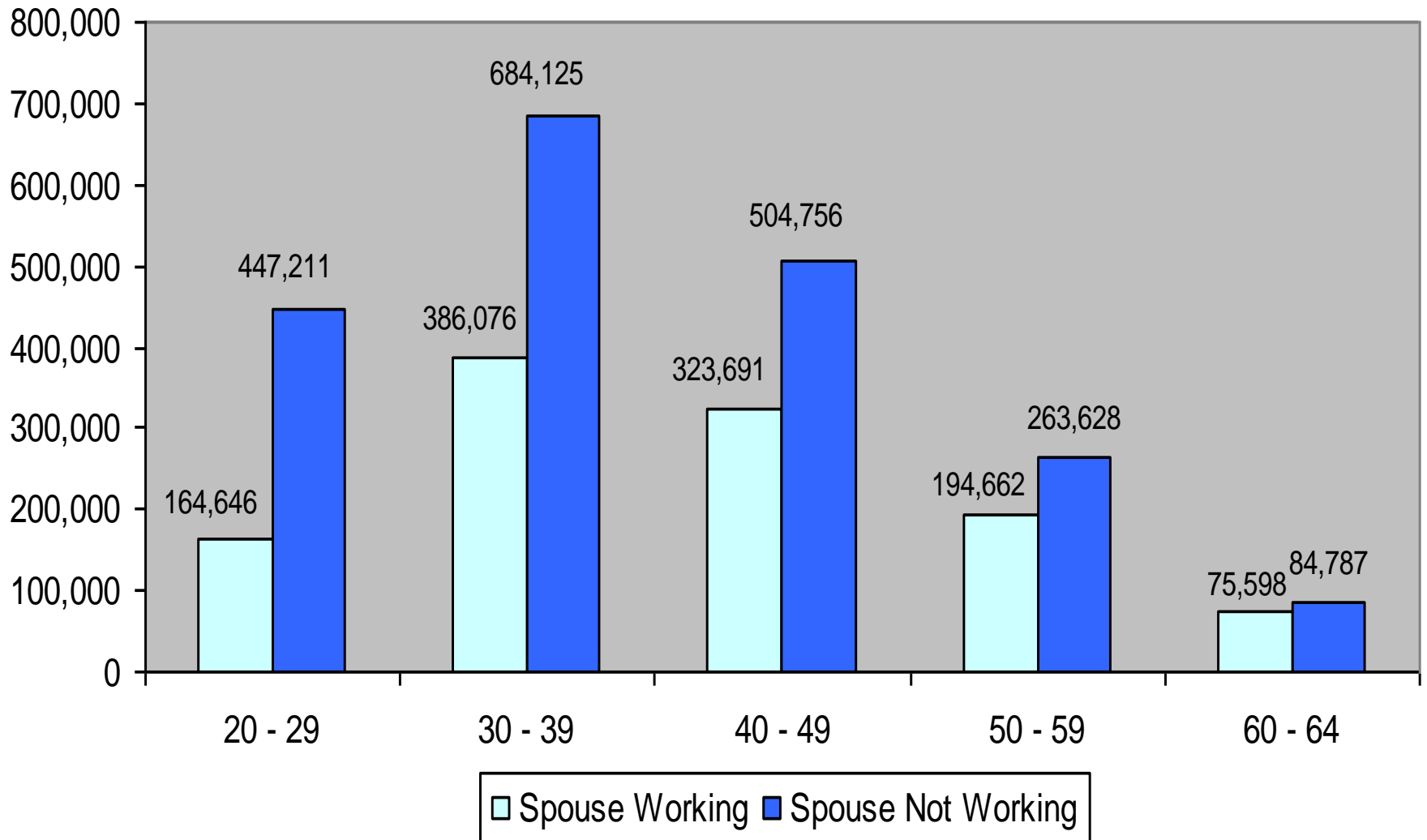
- In later age groups (except last)
 - needs remain low as male spouses have income higher.

- In such situations, surviving male spouse has more than enough to cover his future needs
- Payout from premature death of female working adult then go towards paying other items
 - such as funeral expenses, outstanding personal loans, & other dependants' needs, if any.

Working Status of Spouse

- Figure 5 shows computed protection needs of male working adult in each household by age group & by working status of spouse
 - Shows significance of spouse's income in determining amount of insurance requirement.

Figure 5 : Needs By Age Group and Whether Spouse is Working



- It is obvious that greater the financial reliance spouse places on working adult
 - More protection needs

This is driven by following factors:

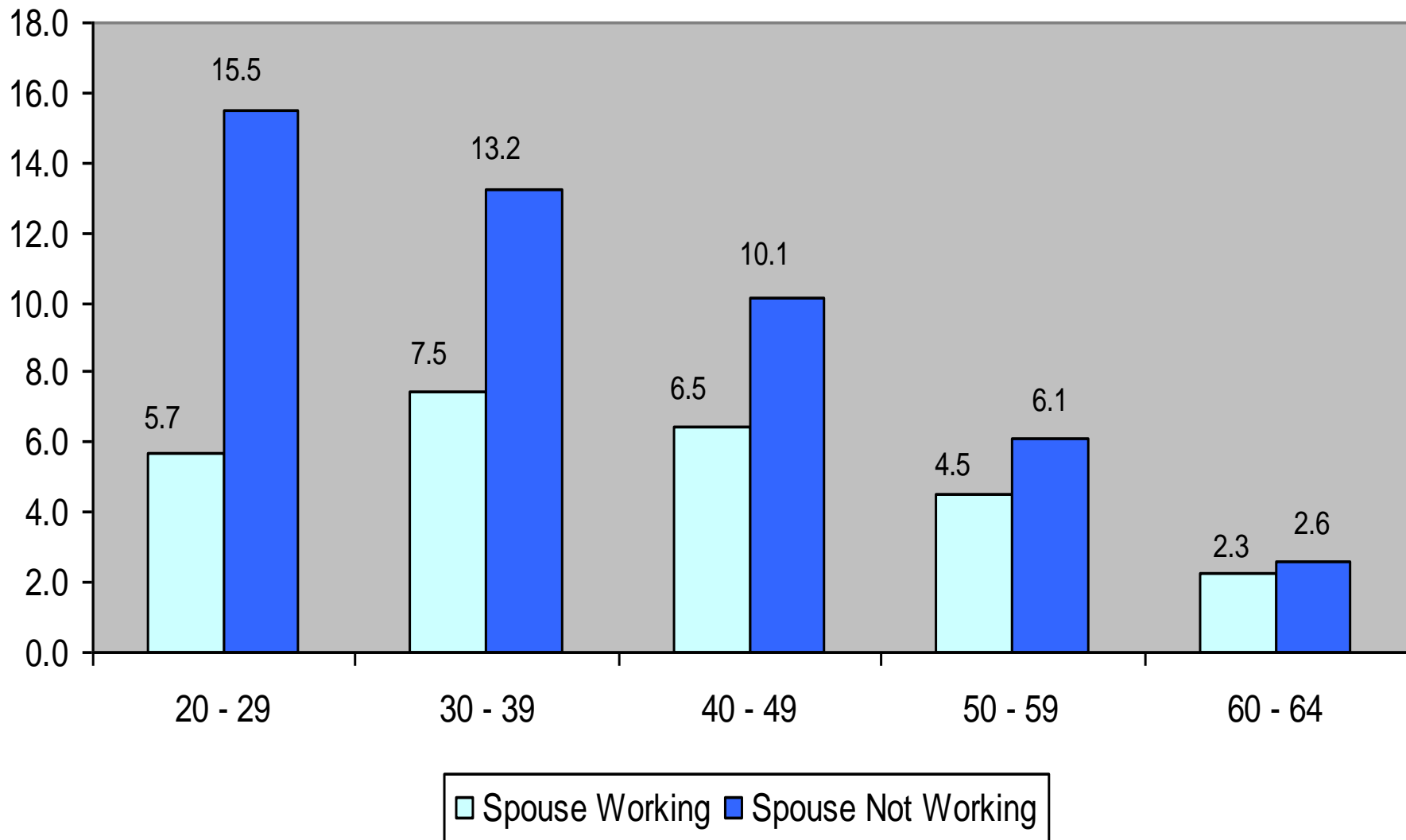
- When spouse working, household income higher
 - expected housing loans higher
 - higher protection needs.

- Furthermore, when household income is higher
 - surviving partner's needs will be higher
 - & objective is to maintain standard of living of dependants
- Surviving partner's income to help offset dependents' needs after pre-mature death is zero if spouse not working.

- Age group **30-39** again shows **greatest difference** in absolute terms
 - because of combined effect of **high personal income** & **long period of income needs**
- In **multiples** of **personal income**, age group **20-29** has **greatest difference**
 - Since income needs have to be provided for **longer** period for younger spouse.

- Figure 6 shows computed protection needs of male working adult
 - in multiples of his personal income.

Figure 6 : Needs-Income Ratio By Age Group and Whether Spouse is Working



Existing Life Insurance Cover

- We estimate existing cover of average working person in each age group
- This includes
 1. Group cover
 2. Personal life insurance cover
 3. Cover owned under Dependant Protection Scheme (DPS)
 4. Mortgage insurance.

- Due to lack of data on savings & investments pertaining to each age group, these assets not included
 - However, as departure from Report 2006 which ignored all assets, Update report considers CPF savings of each age group
 - Exclusion of existing assets from model based on 2 reasons.

(1) Definition of asset tricky

- **Whether** an **asset** should be **included** depends more on **purpose** it is intended than its form
- This makes **interpretation** of secondary data **subjective**
 - because **purposes** of investments **not disclosed**.

(2) Assets likely to vary significantly among individuals, even among each age group

– With such variation, using single average figure not meaningful & will make results & conclusions misleading

– better to exclude such assets so that public can adjust for his/her own circumstances.

- Report 2006 ignored existing assets
 - Nevertheless, to entirely exclude existing assets will result in over-stating gap
 - which will be weakness of study
 - Hence, we reflect CPF savings
 - i.e. "existing assets" limited to CPF savings
- CPF savings are for pre-mature death, retirements of spouse, endowment, etc.
 - hence should not entirely constitute "assets" for our purpose.

Personal Life Insurance Cover

- Tables 10 & 11 show total in-force sums insured for personal whole life & term life insurance, & group term life insurance respectively as at 31 Dec 2006, as reported by LIA
- Together with statistics on population → personal & group life insurance per resident estimated in final column.

Table 10. **Personal Life Insurance Cover**

Age Group	Whole Life ^a (\$'000)	Personal Term Life ^a (\$'000)	Total Personal Life Insurance (\$'000)	Resident Population ^b	Personal Life Insurance per Resident person (\$)
20 - 29	13,238,550	3,739,431	16,977,982	476,132	35,658
30 - 39	22,439,672	8,755,371	31,195,043	613,680	50,833
40 - 49	19,716,910	7,802,460	27,519,369	645,714	42,619
50 - 59	9,668,136	3,145,966	12,814,102	463,228	27,663
60 - 64	1,108,189	393,693	1,501,882	120,799	12,433

^a Life Insurance Association, Singapore

^b Source: GHS 2005 Release 1 (Socio Demographic and Economics), Table 1

Table 11 : **Group Term Life Insurance**

Age Group	Group Term Life ^a (\$'000)	Resident Working Population ^b	Group Term Life per Working Person (\$)
20 - 29	6,814,320	320,545	21,259
30 - 39	18,467,533	478,951	38,558
40 - 49	13,782,906	471,341	29,242
50 - 59	8,383,832	284,237	29,496
60 - 64	861,552	41,195	20,914

^a Life Insurance Association, Singapore

^b Source: HES 2002/03, Table 7

Department of Statistics

Dependant Protection Scheme (DPS)

- Table 12 shows total in-force sums insured for life insurance under DPS administered by CPF, as at 31 Dec 2006
- Since premium per \$ insured low
– most of population are subscribers
- DPS life insurance per resident estimated in final column.

Table 12 : DPS Term Life Insurance

Age Group	DPS Term Life ^a (\$'000)	Resident Population ^b	DPS Term Life per Resident Population (\$)
20 - 29	24,708,190	476,132	51,894
30 - 39	23,668,287	613,680	38,568
40 - 49	17,337,478	645,714	26,850
50 - 59	9,534,015	463,228	20,582
60 - 64	309,879	120,799	2,565

^a *Life Insurance Association, Singapore*

^b *Source: GHS 2005 Release 1 (Socio Demographic and Economics), Table 1*

Department of Statistics

- LIA provided figures of SI under DPS scheme for each age groups
- In our report, we divide these SI figures by resident population to arrive at average coverage under DPS
- This will defer from \$47,000 in each age group
- Under Section 5.5 on Analysis, we further offer some reasons why statistics are showing not everyone max out their cover e.g lack of awareness.

Mortgage Insurance

- Table 13 shows total in-force sums insured for mortgage life insurance
- Together with statistics on households, mortgage insurance per household estimated in 4th column
- Average housing loan calculated via average debt ratio (ratio of outstanding loans to personal disposable income).

Table 13 : Mortgage Insurance

Age Group	Mortgage Insurance^a (\$'000)	Number of Households^b	Mortgage Insurance per Household (\$)	Average Housing Loan of Working Adult (\$)
20 - 29	2,182,558	43,197	50,526	35,276
30 - 39	13,832,906	226,214	61,150	78,021
40 - 49	11,604,608	327,200	35,466	62,388
50 - 59	2,887,724	258,212	11,184	46,761
60 - 64	98,383	64,889	1,516	11,261

Capped at \$35,276

^a Life Insurance Association, Singapore

^b Source: GHS 2005 Release 1 (Household and Housing), Table 59

- As values in 4th & 5th columns calculated from **different secondary sources**
 - there could be **differences** in these values that led to **average** mortgage **insurance** (4th column) **greater** than average housing **loan** (5th column)
- **Except for 1st age group**, remaining age groups appear **reasonable**
 - Anomaly noted & mortgage insurance for 1st age group **capped** at average housing **loan**.

CPF

CPF meant for several purposes

1. Own retirement
2. Spouse's retirement
3. Children's education
4. Unexpected medical cost of family members...

- While funds meant for dependents' needs (e.g. education costs) should be included in our definition of assets
- Funds meant for dependents above their needs such as spouse's retirement, inheritance wealth, etc. should not
- While noted that not all CPF are assets for our purpose
 - we included full amount as breakdown by purpose not available.

Table 16 summarizes the average cover by type of life insurance & age group

Table 16 : Existing Insurance Cover

Age Group	Personal Life Insurance (Term/WL)	Group Term Life	DPS Term Life	Total Existing Life Cover
20 - 29	35,658	21,259	51,894	108,810
30 - 39	50,833	38,558	38,568	127,959
40 - 49	42,619	29,242	26,850	98,710
50 - 59	27,663	29,496	20,582	77,740
60 - 64	12,433	20,914	2,565	35,912

Figure 11 : Existing Life Insurance Cover by Type

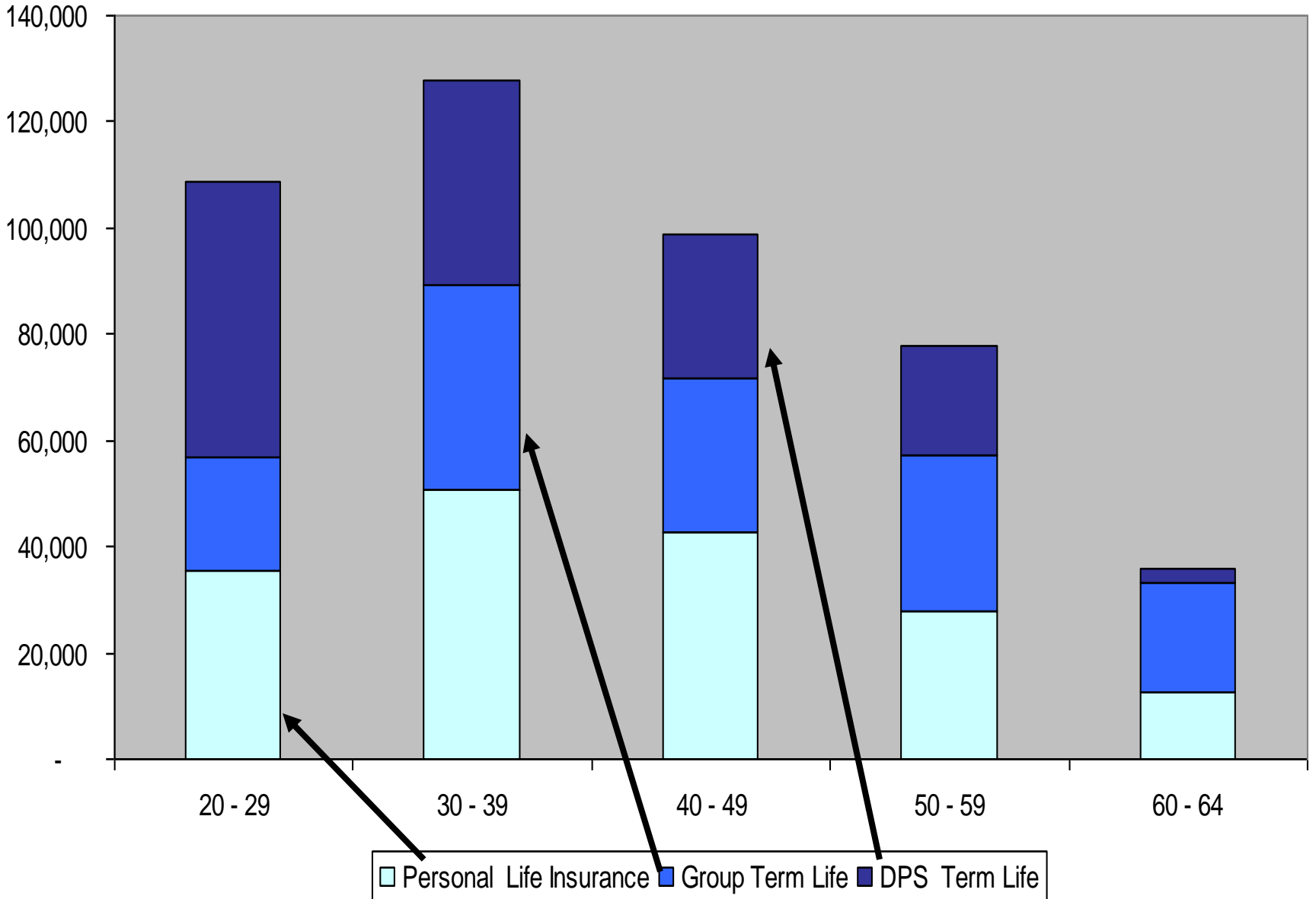
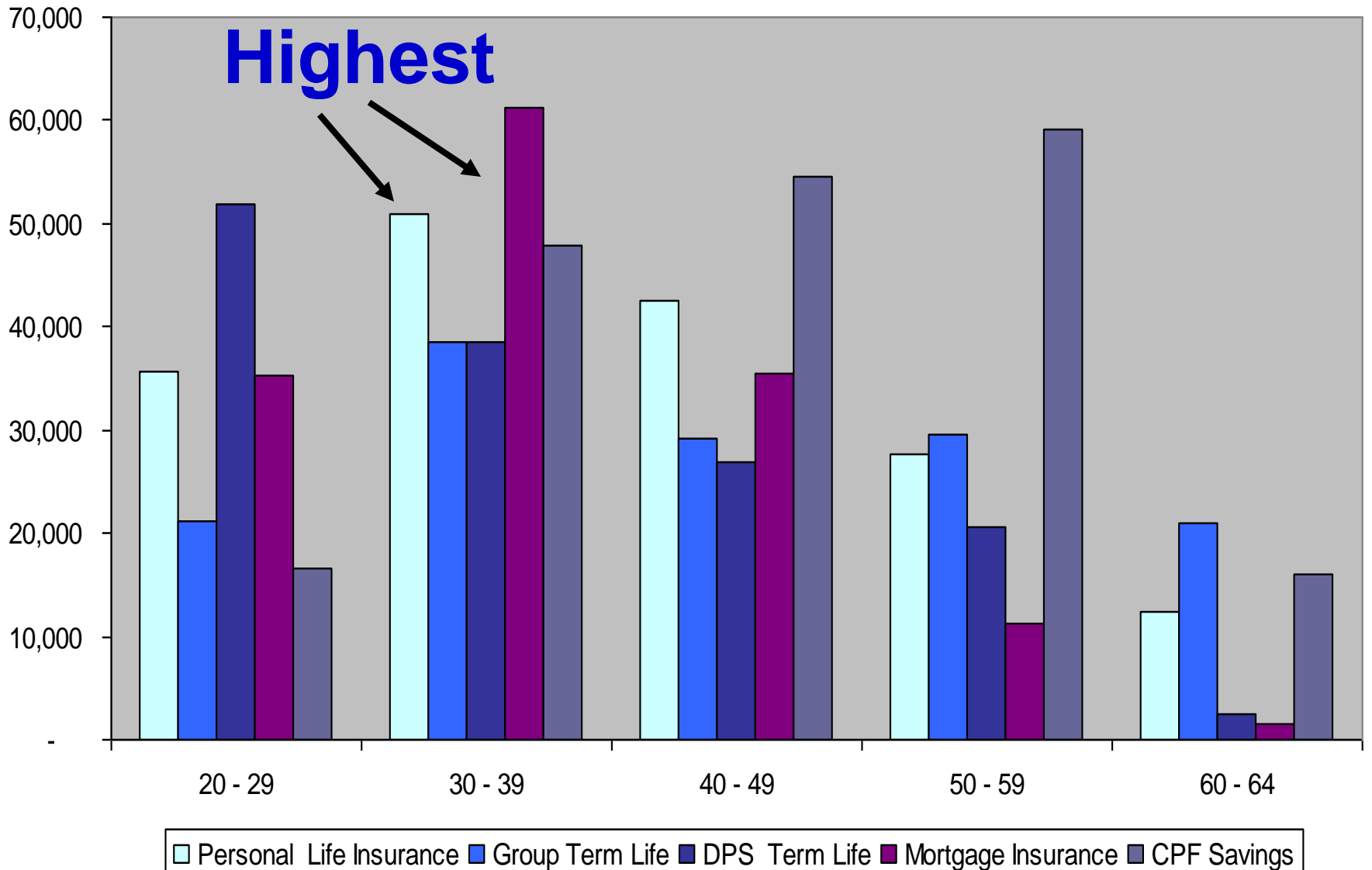


Figure 12 : Existing Insurance Cover by Age Group and Type



Analysis

Personal Life Insurance

- Average personal life insurance owned per working adult highest in 30-39
- May be driven by awareness of higher dependant's needs during this stage of life & hence greater needs
- Also, purchasing power higher since average income highest in this age group
- Financial literacy also generally higher.

Group Term Life Insurance

- Average group term life insurance owned per working adult higher among middle age groups
 - higher income & seniority means higher proportion entitled to such company's privileges.

DPS Term Life Insurance

- Average DPS term life insurance owned per working adult highest in **1st age group** (20 to 29) & decreases as we move to older age groups
 - Possibly due to higher proportion of older generation does not make CPF contribution
 - Hence not subscriber
- Moreover, DPS coverage not widely known & optional
- Hence, older generation may not be as financially literate & aware of such scheme.

Mortgage Insurance

- Average mortgage insurance owned per working adult's household highest in 2nd age group (**30 to 39**)
 - higher income in this age group & subsequently, demand for property
 - need to buy mortgage insurance.

CPF Savings

- Average CPF balance per member higher in older age groups due to build up of funds
 - but lower in last age group (60 to 64)
 - withdrawal started.

Insurance Ownership

- Overall 'shape' of existing cover similar to protection needs
- For both protection needs & existing insurance, 2nd (30 to 39) & 3rd age (40 to 49) groups rank highest in ownership.

Under-insurance

- In seeking to understand drivers behind protection needs
 - set of **68 households** generated
 - **34** from male
 - **34** from female perspective
- Caveat → this is not true average of needs in each age group.

- However, we ‘get a feel’ of relative under-insurance
 - representative protection needs in each age groups
 - These representative households & their needs are computed in Appendix C.



I am insured.
Phew~ Thank you
for your attention.