# A note on households' choice of emergency finance

Andrew Worthington
*University of Wollongong*

## *Abstract*

This note examines demographic and socioeconomic characteristics as predictors of emergency finance in Australian households. The data is from the Household Expenditure Survey Confidentialised Unit Record Files and relates to 6,892 households. Emergency finance is defined as the ability to raise $2,000 within a week and its potential sources include own savings, loans from deposit–talking institutions, finance companies, credit cards, family and friends, welfare or community organisations and selling household assets. Characteristics examined included family structure, household income, age, sex and marital status, ethnic background and housing value. Multinomial logistic models indicate income, housing value and status are key factors influencing the ability to raise emergency finance. The model is more accurate predicting the inability to raise emergency finance and emergency finance sourced from own savings and deposit–taking institutions.

# 1. Introduction

Financial planners recommend that investment programs should include provision for emergency finance. This is because regardless of how well a person has planned elsewhere, in the short term the individual may also need emergency finance to meet unexpected financial events (Chieffe and Rakes 1999). These events cover a wide range of financial contingencies, but are most often associated with voluntary and involuntary unemployment, withdrawal from the labour force due to health problems and parenthood, and unexpected household expenses, especially house and motor vehicle repairs and maintenance.

However, many individuals do not feel that accumulating funds for emergencies is as important as accumulating funds for other goals nor is planning for emergencies ranked as highly as other areas of financial planning. For example, financial planners generally recommend that individuals accumulate liquid funds of three months of income. Most studies have found that few households meet this standard [see, for instance, Chang and Huston (1995), Chang et al. (1997), Huston and Chang (1997)]. As an alternative, and recognising that accumulating funds may not be rational where income is certain, others suggest keeping open a line of credit in the form of a credit card or home equity loan. But reserving such finance for the purpose intended is often difficult and some forms of credit may expose households to an ongoing cycle of repayment difficulties Hatcher (2000). Such omissions are important because the absence of emergency finance (as either accumulated funds or available credit) has the potential to adversely affect financial wellbeing.

The purpose of this note is to add to the emergency finance literature an analysis of emergency finance in Australian households using the Australian Bureau of Statistics' (2002) *Household Expenditure Survey*. To the author's knowledge this is the first of its kind in Australia and the only known study of emergency finance outside the United States. The note is divided into four main areas. The first section explains the empirical methodology, data and hypotheses employed in the analysis. The second section presents a descriptive analysis of the data used. The results are dealt with in the third section. The paper ends with some brief concluding remarks in the final section.

# 2. Research method

All data is obtained from the Australian Bureau of Statistics' (ABS) (2002) *Household Expenditure Survey* Confidentialised Unit Record File (CURF) and relate to a sample of 6,892 probability-weighted Australian households. The analytical technique employed is to specify households' capacity and preference for emergency finance as the dependent variable in a regression with demographic and socioeconomic characteristics as explanatory variables. The nature of the dependent variable indicates a multinomial (or polytomous) logistic regression model is appropriate.

The first set of information in the survey provides the dependent variable. The survey asked whether the respondents could raise emergency money of $2,000 in one week and if so whether they would use their own savings (*SAV*) or a loan from a deposit-taking institution (*DTI*), finance company (*FIN*), credit card (*CRD*), family/friends (*FMF*), welfare or community organisation (*WLF*) or sell household assets (*SEL*). The control is the inability to raise emergency finance of $2,000 in one week (*NEF*). The next set of information specifies the explanatory variables. While there is no unequivocal rationale for predicting the direction and statistical significance of these independent variables, their inclusion is consistent with

both past studies of household financial behaviour and the presumed interests of policy-makers.

The first six variables concern household structure. These represent households composed respectively of couples and lone parents with children over 15 years of age (*CPO* and *LPO*), couples and lone parents with children 14 years or younger (*CPY* and *LPY*) and couples and lone parents with children both under 14 years and over 15 years (*CPB* and *LPB*). The control is single person or couple only households. The next several variables relate to the sex, age, marital status and ethnic background of the household head. The variables specified are the sex (*SEX*), age (*AGE*) and marital status of the household head, either divorced/separated (*DIV*) or married/de facto (*MAR*), and whether the household head was born in Oceania (*OCE*), Europe (*EUR*), the Middle East and North Africa (*MID*), Asia (*ASA*), the Americas (*AMR*) or Sub-Saharan Africa (*AFR*). The control variables are male, never married/unmarried and born in Australia household heads, respectively.

The following variables reflect additional dimensions of household structure. These are the number of income units (*INU*) and the number of dependents (*DEP*) in the household. The subsequent three variables indicate whether the principal source of household income is derived from self-employment (*SEL*), superannuation and investments (*SUP*) or government pensions and benefits (*BEN*). The control is wages and salaries. The next two variables relate to housing with two variables indicating whether the principal residence is being bought (*MRT*) or rented (*RNT*) (control is owned outright). The final variables are the estimated value of the principal dwelling (*VAL*) and household disposable income (*DIC*).

### 3. Description of the data

Selected descriptive statistics of the variables are provided in Table 1 with the observed frequencies of the dependent variable in Table 3. Overall, 1,289 households (18.70 percent) were unable to raise emergency finance of $2,000 in one week. If the household could raise emergency finance 2,940 (42.66 percent) would use their own savings, 976 (14.16 percent) would use a loan from a deposit-taking institution, 38 (0.55 percent) would use a finance company, 620 (9.00 percent) would use a credit card, 847 (12.29 percent) would use family and friends, 79 (1.15 percent) would sell something and 103 (1.49 percent) would use a loan from a welfare or community organisation.

By and large, the distributional properties of the variables in Table 1 appear non-normal. Most of the values are positively skewed, indicating a long right tail for the continuous variables and the much lower probability of ones as against zeros in the binary variables. Since the critical value for skewness is 0.057 then all estimates of skewness are significant at the .05 level or higher. The kurtosis, or degree of excess, in many variables is also positive and larger than three, ranging from 5.648 for *CPO* to 104.482 for *AMR*, thereby indicating leptokurtic distributions. The kurtosis for *DIV*, *EUR*, *AGE*, *DEP*, *RNT*, *MAR*, *CPY*, *SEX* and *MRT* is less than three indicating platykurtic distributions. The critical value for kurtosis at the .05 level is 0.115. To test for potential multicollinearity, variance inflation factors (VIF) are presented in Table 1. Since all values are less than ten we suggest that multicollinearity, while present, is not too much of a problem.

Table 1. Descriptive statistics

|     | Mean  | Std. dev. | Skewness | Kurtosis | VIF   |
| --- | ----- | --------- | -------- | -------- | ----- |
| EMF | 1.874 | 1.785     | 1.042    | -0.068   | –     |
| CPO | 0.094 | 0.293     | 2.765    | 5.648    | 1.545 |
| CPY | 0.201 | 0.400     | 1.492    | 0.228    | 2.950 |
| CPB | 0.053 | 0.224     | 3.986    | 13.897   | 1.855 |
| LPO | 0.034 | 0.182     | 5.099    | 24.012   | 1.177 |
| LPY | 0.046 | 0.211     | 4.296    | 16.465   | 1.564 |
| LPB | 0.011 | 0.105     | 9.303    | 84.580   | 1.199 |
| SEX | 0.399 | 0.489     | 0.408    | -1.833   | 1.210 |
| AGE | 8.890 | 3.201     | 0.261    | -0.717   | 2.561 |
| DIV | 0.210 | 0.407     | 1.418    | 0.011    | 2.524 |
| MAR | 0.634 | 0.481     | -0.559   | -1.687   | 3.070 |
| OCE | 0.029 | 0.167     | 5.612    | 29.512   | 1.462 |
| EUR | 0.168 | 0.374     | 1.772    | 1.140    | 1.893 |
| MID | 0.011 | 0.107     | 9.121    | 81.221   | 1.171 |
| ASA | 0.050 | 0.219     | 4.099    | 14.812   | 1.994 |
| AMR | 0.009 | 0.095     | 10.317   | 104.482  | 1.152 |
| AFR | 0.009 | 0.096     | 10.153   | 101.114  | 1.165 |
| INU | 1.255 | 0.572     | 2.611    | 8.115    | 1.524 |
| DEP | 0.756 | 1.107     | 1.383    | 1.421    | 3.055 |
| SEL | 0.064 | 0.245     | 3.549    | 10.599   | 1.061 |
| SUP | 0.071 | 0.258     | 3.317    | 9.008    | 1.339 |
| BEN | 0.263 | 0.440     | 1.076    | -0.841   | 2.031 |
| MRT | 0.317 | 0.465     | 0.784    | -1.385   | 1.692 |
| RNT | 0.286 | 0.452     | 0.942    | -1.111   | 2.339 |
| VAL | 1.370 | 1.449     | 2.684    | 18.262   | 1.728 |
| DIC | 0.722 | 0.500     | 0.545    | 9.239    | 1.824 |

## 4. Empirical findings

The estimated coefficients, standard errors and *p*-values of the parameters for the multinomial logistic regression are provided in Table 2. To facilitate comparability, marginal effects are also presented. Seven nonredundant logits are formed representing the seven main sources of emergency finance (*SAV*, *DTI*, *FIN*, *CRD*, *FMF*, *SEL* and *WLF*) with the inability to raise emergency finance of any form (*NEF*) as the base (or reference) category. The estimated model is highly significant, with a likelihood ratio test of the hypothesis that all of the slope coefficients are zero rejected at the .01 level.

Consider the raising of emergency finance through own savings (*SAV*). The coefficients indicate that couples with older children (*CPO*), lone parents with older (*CPO*) and both younger and older children (*CPB*), divorced or separated household heads and those born in Europe (*EUR*), the Middle East (*MID*), Asia (*ASA*) or Africa (*AFR*), households with more dependents (*DEP*) and income units (*INU*), those on government pensions and benefits (*BEN*) and those buying (*MRT*) or renting (*RNT*) their home are less likely to use own savings, while older households (*AGE*), those dependent on superannuation and investments (*SUP*) and with more valuable homes (*VAL*) and larger incomes (*DIC*) are more likely to use own savings. The greatest influences on the ability to raise emergency finance through own savings (marginal effect in brackets) are disposable income (*DIC*) (8.870), superannuation and investments as the principal source of income (*SUP*) (2.175) and residential value (*VAL*) (1.502). Put differently, an increase in disposable income increases the odds of households raising emergency finance though own savings by more than eight times, more than two times if dependent on superannuation and investment income and one and a half times for an increase in residential value.

Table 2. Estimated regression model

| | SAV | | | | DTI | | | | FIN | | | | CRD | | | | FMF | | | | SEL | | | | WLF | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Estimated coefficient | Standard error | $p$-value | Marginal effect | Estimated coefficient | Standard error | $p$-value | Marginal effect | Estimated coefficient | Standard error | $p$-value | Marginal effect | Estimated coefficient | Standard error | $p$-value | Marginal effect | Estimated coefficient | Standard error | $p$-value | Marginal effect | Estimated coefficient | Standard error | $p$-value | Marginal effect | Estimated coefficient | Standard error | $p$-value | Marginal effect |
| CON | 0.180 | 0.310 | 0.562 | | -0.872 | 0.370 | 0.019 | | -4.911 | 1.270 | 0.000 | | -2.043 | 0.418 | 0.000 | | -0.233 | 0.349 | 0.504 | | -2.509 | 0.972 | 0.010 | | -2.940 | 0.805 | 0.000 | |
| CPO | -0.467 | 0.234 | 0.046 | 0.627 | -0.184 | 0.258 | 0.476 | 0.832 | 0.461 | 0.830 | 0.579 | 1.586 | -0.668 | 0.289 | 0.021 | 0.513 | -0.378 | 0.283 | 0.182 | 0.685 | -1.837 | 1.276 | 0.150 | 0.159 | -0.224 | 0.525 | 0.670 | 0.800 |
| CPY | 0.170 | 0.215 | 0.430 | 1.185 | 0.022 | 0.241 | 0.928 | 1.022 | 0.680 | 0.849 | 0.423 | 1.974 | 0.045 | 0.263 | 0.865 | 1.046 | 0.069 | 0.236 | 0.770 | 1.072 | -0.507 | 0.560 | 0.365 | 0.602 | 0.274 | 0.512 | 0.593 | 1.315 |
| CPB | -0.497 | 0.305 | 0.103 | 0.608 | 0.000 | 0.322 | 0.999 | 1.000 | -0.632 | 1.501 | 0.674 | 0.532 | -0.338 | 0.362 | 0.351 | 0.714 | -0.649 | 0.356 | 0.068 | 0.522 | -1.116 | 0.920 | 0.225 | 0.328 | 0.267 | 0.634 | 0.674 | 1.306 |
| LPO | -0.454 | 0.265 | 0.087 | 0.635 | 0.072 | 0.311 | 0.818 | 1.074 | -1.045 | 1.300 | 0.421 | 0.352 | -0.428 | 0.378 | 0.257 | 0.652 | -0.225 | 0.280 | 0.423 | 0.799 | 0.059 | 0.794 | 0.940 | 1.061 | -0.440 | 0.790 | 0.577 | 0.644 |
| LPY | -0.260 | 0.296 | 0.378 | 0.771 | 0.327 | 0.344 | 0.342 | 1.387 | -20.061 | 0.000 | 0.000 | 0.000 | 0.259 | 0.388 | 0.505 | 1.296 | 0.176 | 0.256 | 0.492 | 1.192 | -0.545 | 0.710 | 0.443 | 0.580 | -0.054 | 0.849 | 0.949 | 0.948 |
| LPB | -1.788 | 0.712 | 0.012 | 0.167 | 0.329 | 0.518 | 0.525 | 1.390 | -0.133 | 1.509 | 0.930 | 0.875 | -0.959 | 0.821 | 0.242 | 0.383 | -0.081 | 0.425 | 0.849 | 0.922 | -0.176 | 1.041 | 0.866 | 0.839 | -0.424 | 1.358 | 0.755 | 0.655 |
| SEX | 0.086 | 0.107 | 0.421 | 1.090 | -0.075 | 0.129 | 0.560 | 0.928 | 0.677 | 0.428 | 0.114 | 1.969 | 0.021 | 0.144 | 0.885 | 1.021 | 0.307 | 0.123 | 0.013 | 1.359 | -0.196 | 0.324 | 0.545 | 0.822 | -0.060 | 0.287 | 0.834 | 0.942 |
| AGE | 0.193 | 0.023 | 0.000 | 1.213 | 0.193 | 0.029 | 0.000 | 1.213 | 0.095 | 0.105 | 0.365 | 1.100 | 0.159 | 0.033 | 0.000 | 1.172 | -0.004 | 0.026 | 0.876 | 0.996 | -0.083 | 0.064 | 0.194 | 0.920 | 0.035 | 0.066 | 0.596 | 1.036 |
| DIV | -0.331 | 0.176 | 0.060 | 0.718 | -0.432 | 0.225 | 0.054 | 0.649 | -0.031 | 0.783 | 0.968 | 0.969 | -0.144 | 0.259 | 0.579 | 0.866 | -0.200 | 0.190 | 0.292 | 0.819 | 0.567 | 0.534 | 0.288 | 1.764 | 0.094 | 0.556 | 0.866 | 1.098 |
| MAR | -0.155 | 0.172 | 0.368 | 0.857 | -0.014 | 0.211 | 0.949 | 0.987 | -0.438 | 0.745 | 0.557 | 0.645 | 0.111 | 0.239 | 0.643 | 1.117 | -0.106 | 0.192 | 0.582 | 0.900 | 0.881 | 0.519 | 0.089 | 2.413 | 0.084 | 0.515 | 0.871 | 1.087 |
| OCE | 0.005 | 0.283 | 0.985 | 1.005 | 0.007 | 0.332 | 0.983 | 1.007 | 1.367 | 0.720 | 0.058 | 3.922 | -0.355 | 0.419 | 0.398 | 0.701 | 0.235 | 0.306 | 0.443 | 1.265 | -1.044 | 1.242 | 0.401 | 0.352 | 0.705 | 0.616 | 0.252 | 2.023 |
| EUR | -0.420 | 0.135 | 0.002 | 0.657 | -0.247 | 0.160 | 0.121 | 0.781 | 0.478 | 0.537 | 0.374 | 1.612 | 0.052 | 0.174 | 0.763 | 1.054 | 0.082 | 0.158 | 0.605 | 1.085 | -0.107 | 0.409 | 0.794 | 0.899 | 0.170 | 0.328 | 0.604 | 1.186 |
| MID | -1.741 | 0.490 | 0.000 | 0.175 | -0.714 | 0.462 | 0.123 | 0.490 | -18.625 | 0.000 | 0.000 | 0.000 | -0.575 | 0.535 | 0.283 | 0.563 | -0.478 | 0.431 | 0.268 | 0.620 | -20.146 | 0.000 | 0.000 | 0.000 | -0.316 | 0.933 | 0.735 | 0.729 |
| ASA | -0.455 | 0.215 | 0.034 | 0.634 | -0.986 | 0.289 | 0.001 | 0.373 | 1.017 | 0.601 | 0.090 | 2.766 | 0.041 | 0.258 | 0.874 | 1.042 | 0.056 | 0.225 | 0.805 | 1.057 | -0.333 | 0.649 | 0.608 | 0.717 | -0.554 | 0.652 | 0.396 | 0.575 |
| AMR | 0.039 | 0.468 | 0.934 | 1.039 | -0.610 | 0.639 | 0.340 | 0.543 | -17.958 | 0.000 | 0.000 | 0.000 | 0.542 | 0.541 | 0.317 | 1.719 | -1.190 | 0.775 | 0.125 | 0.304 | -19.481 | 0.000 | 0.000 | 0.000 | 0.672 | 0.953 | 0.481 | 1.958 |
| AFR | -0.836 | 0.465 | 0.072 | 0.433 | -0.409 | 0.514 | 0.425 | 0.664 | -18.318 | 0.000 | 0.000 | 0.000 | -0.599 | 0.622 | 0.336 | 0.549 | -0.460 | 0.541 | 0.395 | 0.631 | -19.535 | 0.000 | 0.000 | 0.000 | -0.612 | 1.282 | 0.633 | 0.542 |
| INU | -0.748 | 0.111 | 0.000 | 0.473 | -0.447 | 0.126 | 0.000 | 0.639 | -0.045 | 0.359 | 0.900 | 0.956 | -0.356 | 0.135 | 0.008 | 0.700 | -0.071 | 0.114 | 0.534 | 0.931 | -0.355 | 0.358 | 0.321 | 0.701 | -0.229 | 0.246 | 0.354 | 0.796 |
| DEP | -0.398 | 0.078 | 0.000 | 0.672 | -0.166 | 0.084 | 0.048 | 0.847 | -0.165 | 0.303 | 0.585 | 0.848 | -0.213 | 0.094 | 0.024 | 0.809 | -0.119 | 0.078 | 0.129 | 0.888 | 0.021 | 0.189 | 0.913 | 1.021 | -0.121 | 0.177 | 0.492 | 0.886 |
| SEL | 0.064 | 0.229 | 0.779 | 1.066 | 0.224 | 0.243 | 0.355 | 1.252 | 0.516 | 0.697 | 0.459 | 1.675 | 0.012 | 0.277 | 0.964 | 1.012 | -0.298 | 0.294 | 0.311 | 0.742 | 1.103 | 0.524 | 0.035 | 3.014 | 0.941 | 0.421 | 0.025 | 2.562 |
| SUP | 0.777 | 0.295 | 0.008 | 2.175 | -0.505 | 0.364 | 0.166 | 0.604 | 0.709 | 0.851 | 0.405 | 2.033 | 0.051 | 0.376 | 0.891 | 1.053 | 0.358 | 0.335 | 0.285 | 1.431 | 0.032 | 1.282 | 0.980 | 1.033 | 1.526 | 0.550 | 0.006 | 4.597 |
| BEN | -1.449 | 0.160 | 0.000 | 0.235 | -2.184 | 0.203 | 0.000 | 0.113 | -1.843 | 0.759 | 0.015 | 0.158 | -1.995 | 0.240 | 0.000 | 0.136 | -0.682 | 0.162 | 0.000 | 0.505 | 0.436 | 0.449 | 0.332 | 1.546 | -0.692 | 0.452 | 0.126 | 0.501 |
| MRT | -1.357 | 0.150 | 0.000 | 0.257 | -0.419 | 0.168 | 0.012 | 0.658 | -0.552 | 0.630 | 0.381 | 0.576 | -0.253 | 0.189 | 0.181 | 0.777 | -0.388 | 0.176 | 0.028 | 0.678 | 0.070 | 0.463 | 0.880 | 1.072 | -0.929 | 0.338 | 0.006 | 0.395 |
| RNT | -1.471 | 0.177 | 0.000 | 0.230 | -1.207 | 0.214 | 0.000 | 0.299 | 0.327 | 0.704 | 0.643 | 1.386 | -0.514 | 0.237 | 0.030 | 0.598 | -0.427 | 0.206 | 0.039 | 0.653 | -0.369 | 0.563 | 0.512 | 0.691 | -1.547 | 0.459 | 0.001 | 0.213 |
| VAL | 0.407 | 0.079 | 0.000 | 1.502 | 0.306 | 0.085 | 0.000 | 1.358 | 0.430 | 0.199 | 0.031 | 1.537 | 0.496 | 0.085 | 0.000 | 1.642 | 0.311 | 0.090 | 0.001 | 1.365 | -0.047 | 0.277 | 0.864 | 0.954 | 0.307 | 0.141 | 0.029 | 1.360 |
| DIC | 2.183 | 0.184 | 0.000 | 8.870 | 1.245 | 0.199 | 0.000 | 3.474 | 0.925 | 0.621 | 0.136 | 2.522 | 1.513 | 0.214 | 0.000 | 4.540 | 0.699 | 0.195 | 0.000 | 2.011 | 1.031 | 0.590 | 0.080 | 2.804 | 1.688 | 0.387 | 0.000 | 5.411 |

Across the remaining logits the levels of significance of the coefficients vary considerably. For example, seventeen of the twenty-five estimated slope coefficients are significant for the *SAV* logit (68 percent), ten in *DTI* (40 percent), eight each in *FIN* and *CRD* (32 percent), six each in *FMF* and *WLF* (24 percent) and just five (20 percent) in *SEL*. However, there is some consistency across the sources of emergency finance with disposable income (*DIC*) being the largest marginal effect on selecting a particular source of emergency finance in six (excluding *FIN*) and residential value (*VAL*) being the next most significant marginal effect in three (including *DTI*, *CRD* and *SEL*). Chi-square log-likelihood statistics (not shown) that all parameters of a particular effect are zero are rejected at the .10 level or higher for all except *CPY*, *LPO*, *LPY*, *DIV*, *MAR*, *OCE* and *AFR*.

Table 3. Observed and predicted values

| | Observed | | Constant | | | | | | | Predicted | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number | % | Number | % | NEF | SAV | DTI | FIN | CRD | FMF | SEL | WLF | Number | % |
| NEF | 1289 | 18.70 | 241 | 18.70 | 764 | 449 | 54 | 0 | 5 | 17 | 0 | 0 | 764 | 59.27 |
| SAV | 2940 | 42.66 | 1254 | 42.66 | 212 | 2635 | 70 | 0 | 6 | 17 | 0 | 0 | 2635 | 89.63 |
| DTI | 976 | 14.16 | 138 | 14.16 | 99 | 757 | 100 | 0 | 4 | 16 | 0 | 0 | 100 | 10.25 |
| FIN | 38 | 0.55 | 0 | 0.55 | 9 | 25 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0.00 |
| CRD | 620 | 9.00 | 56 | 9.00 | 84 | 488 | 42 | 0 | 3 | 3 | 0 | 0 | 3 | 0.48 |
| FMF | 847 | 12.29 | 104 | 12.29 | 298 | 471 | 49 | 0 | 2 | 27 | 0 | 0 | 27 | 3.19 |
| SEL | 79 | 1.15 | 1 | 1.15 | 36 | 39 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0.00 |
| WLF | 103 | 1.49 | 2 | 1.49 | 16 | 79 | 5 | 0 | 1 | 2 | 0 | 0 | 0 | 0.00 |
| Total | 6892 | 100.00 | 1796 | 26.06 | 1518 | 4943 | 324 | 0 | 21 | 86 | 0 | 0 | 3529 | 51.20 |

As a final requirement, the ability of the model to accurately predict outcomes is examined. Table 4 provides the predicted results for the model and compares these to the probabilities obtained from a constant probability model. The probabilities in the constant probability model are the values computed from estimating a model that includes only an intercept term, and thereby correspond to the probability of correctly identifying the sources of emergency finance on the basis of the proportion in the sample. As shown, of the 6,892 households 1,289 (18.70 percent) indicated that they could not raise emergency finance of $2,000 in one week by any source (*NEF*) and the model correctly predicted 764 (59.27 percent) of these households. By comparison, the constant probability model would only correctly identify 241 (18.70 percent).

Similarly, 2,940 households (42.66 percent) identified they would use their own savings as their main source of emergency finance (*SAV*) and the estimated model identified 2,635 (89.63 percent) correctly. The constant probability model correctly identifies 1,254 (42.66 percent). However, the estimated model is less accurate at predicting the other sources of emergency finance with predictive success of just 10.25 percent for *DTI*, 0.48 percent for *CRD*, 3.19 percent for *FMF* and zero for *FIN*, *SEL* and *WLF*. Most of the incorrect predictions for these sources are allocated to *NEF*, *SAV* and *DTI*, evidence that the parameters used in this analysis are unable to throw light on the subtle preferences that would lead a household to seek loans from family and friends or sell something rather than access emergency finance in a more conventional manner. Overall, the model correctly allocates 51.20 percent of households to the eight emergency finance categories, as against the constant probability model, which correctly identifies 26.06 percent.

## 5. Conclusion

This note shows that the presence of children, the number of dependents and income-earning units and the age, sex and ethnicity of the household head has a role to play in the capacity to raise and the sourcing of emergency finance. By itself, disposable income is a key factor, increasing the odds of raising emergency finance through own savings by 8.87 times, through credit cards by 4.54 times and through deposit-taking institutions by 3.47 times. Even 'non-core' sources of emergency finance such as loans from family and friends and selling household assets are heavily influenced

by disposable income. It would also appear that the capacity to raise emergency finance is also a function of a household's engagement with the financial sector generally. Generally, a household that relies upon superannuation and investments and/or which owns or is buying their home have greater engagement with the finance sector and are clearly able to gain emergency finance through a variety of mechanisms, including equity loans, fully drawn advances, overdrafts and the sale of marketable financial assets.

## References

Australian Bureau of Statistics (2002) *1998-99 Household Expenditure Survey Australia, Confidentialised Unit Record File*, ABS. Cat. No. 6544.0.30.001.

Chang, Y. R. Hanna, S. and Fan, J.X. (1997) "Emergency fund levels: Is household behaviour rational?" *Financial Counselling and Planning* **8**, 47-55.

Chang, Y.R. and Huston, S.J. (1995) "Patterns of adequate household emergency fund holdings" *Financial Counselling and Planning* **6**, 119-128.

Chieffe, N. and Rakes, G.K. (1999) "An integrated model for financial planning" *Financial Services Review* **8**, 261-268.

Hatcher, C.B. (2000) "Should households establish emergency funds?", *Financial Counselling and Planning* **11**, 77-83.

Huston, S.J. and Chang, Y.R. (1997) "Adequate emergency fund holdings and household type" *Financial Counselling and Planning* **8**, 37-46