

Antecedents and Consequences of Newlyweds' Cash Flow Management

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This study focused on exploring the process and outcomes of cash flow management among randomly-selected newlywed couples. Descriptive data suggested that family cash flow management is much more complex than revealed in previous studies asking "whether families have a budget." Three dimensions of family cash flow management--budgeting, financial record-keeping, and goal-setting and analysis---were performed with varying frequency by newlyweds. The most consistent antecedents that predict the frequency with which couples perform these tasks were indicators of their willingness to manage, even after their ability and need to manage were controlled. Performing the recommended cash flow management tasks more frequently appears to have few objective benefits, at least in the short term, while one dimension, record-keeping, did predict greater satisfaction with the family's financial situation.

KEY WORDS: *family cash flow management, net worth, financial satisfaction*

Evidence suggests that more families are having difficulty managing their finances. Concern about families' financial management revolves around evidence of high debt loads, low savings, lack of liquid assets, and increases in credit delinquency, home mortgage foreclosures, and bankruptcy filings. Consumers' delinquency rate on bank credit cards rose to 6.13% in March, 1991, a 30% increase over the previous March ("Sharp rise in credit card delinquency...", 1991). Nonbusiness bankruptcy petitions have increased from 282,105 in 1984 to 811,206 in 1991 (U.S. Bureau of the Census, 1992, p. 532). Family financial management is the subject of many textbooks, college and university courses, and popular literature, but surprisingly little theoretical development and empirical research. There is little understanding of the actual behavior of families in their management of their financial resources. How do families manage their cash flow? What causes different families to manage differently? Do families who "practice what the textbooks preach" enjoy

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better financial status or do they feel better about their finances? If programs aimed at enhancing consumers' choices in the financial services market and helping them manage their money are to be effective, such questions need better answers than presently available. Answers to such questions are also needed to inform policies and programs aimed at helping families avoid financial problems and helping families who are already in financial trouble. The purpose of this study is to explore these questions. A first objective is to describe the cash flow management of newlywed families using a more comprehensive measure than in the past. A second objective is to explore the factors that relate to newlywed couples' cash flow management, testing several hypotheses about the antecedents of more extensive cash flow management. The third objective is to investigate the consequences of their cash flow management, i.e., to see whether better management produces better results.

Definitions: Budgeting, Cash Flow Management and Family Financial Management

Much of the difficulty in making conclusions about families' cash flow management stems from the absence of conceptual definitions of several important constructs. What is family financial management? Is it synonymous with budgeting? Does budgeting mean that families project their future income and expenditures or is it something more inclusive? No consistent definitions of such terms exist. For example, the term family financial management has been operationally defined to include everything from current consumption expenditures, general goal-setting and planning behaviors, and the division of responsibility between spouses for financial decisions. Such broad and inconsistent definitions do little to advance our understanding of the patterns of families' behavior or its causes and consequences.

Early examinations of family financial management focused on the frequency of planning behavior, the existence of a written budget, or whether families kept records (Dickens and Ferguson, 1957; Honey, Britton & Hotchkiss, 1959; Honey and Smith, 1952; Syckle, 1951; Van Bortel & Gross, 1954; Wells, 1959). Most of these studies included only a single item, paid little attention to the time referent of the behavior, and reported only the barest descriptive data on the measures. Similar problems continued to plague some of the more recent research. Some investigators (Mullis & Schnittgrund, 1982) have used simplistic, single-item measures of financial management. Others (Hira, 1987; Hira & Nagashima, 1988; Mueller & Hira, 1984; Jeries & Allen, 1986) have used from 5 to 17 very different items in studies purporting to measure some aspect of financial management. Questions typically address who makes

financial decisions, attitudes about credit, whether the family has financial problems, and satisfaction with financial status, along with the behavioral measures of planning, budgeting, and record-keeping. In some analyses, these items are examined separately, although they are clearly interrelated and should be assessed for their measurement properties as indicators of broader concepts. In other studies, these items are summed into an index with no attention to the scalability of the items. In sum, lack of attention to the conceptual and measurement issues of studying families' cash flow management and the lack of consistent terminology has made accumulation of knowledge about such behavior difficult.

A few exceptions to this include recent studies with clearer definitions of financial management that focus on behavioral indicators (Beutler & Mason, 1987; Godwin & Carroll, 1986; Williams, 1985). The best conceptual treatment is the work of Beutler and Mason (1987), who defined a variable called budget formality. They measured family budgeting behavior "along a continuum ranging from formal and extensive to informal and minimal. Formal budgeting consists of written plans made in advance for a period of up to a year, with written records of expenditures followed by regular review and evaluation" (p. 5). The indexed four variables: (a) planning horizon--point of purchase to one year; (b) have written plans--never to always; (c) have written records--never to always; and (d) review and evaluate plans--never to always. While this represents an advance over previous operational definitions, it does not include several aspects now being discussed in textbooks as components of effective cash flow management.

In this study, cash flow management is defined as the relatively short-term planning, implementing and evaluating involved in allocating the family's income in order to meet their tacit or explicit financial goals. It is a set of activities performed, albeit with varying degrees of frequency and effectiveness, by all families. Cash flow management is a subset of financial management, which includes other issues from savings and investment, insurance, and retirement and estate planning. All families do not make decisions about insurance, investment, retirement or estate planning, but all make decisions about how their cash flow is managed. Whether they realize what they are doing, families typically make and implement these decisions on a frequent basis, perhaps daily or several times a week. Family cash flow management subsumes but is not identical to budgeting. In addition to including the tasks which typically comprise budgeting (e.g., projecting future income, projecting expenditures, and reconciling or "balancing" the two),

family cash flow management also includes other tasks, such as using financial statements to assess the family's current financial status, making financial goals, and keeping and analyzing records. To accomplish the first objective, newlyweds' patterns of cash flow management will be explored through a set of 20 items, derived from current textbooks and designed to comprehensively measure all aspects of their cash flow management.

Antecedents of Family Cash Flow Management

No theoretical model exists that specifies and explains the antecedents of family cash flow management. Most studies that have used a conceptual framework for their study of family financial management behavior have employed some version of Deacon and Firebaugh's (1988) model of family resource management to conceptualize financial management behaviors as throughputs in the family managerial system. Deacon and Firebaugh's model proposes two types of inputs that influence that behavior--family resources and demands on the family.

According to Deacon and Firebaugh (1988), family resources influence their ability to manage effectively. Family members' ability to manage their finances is a function of their human capital, as measured by their age, years of formal schooling and specific training in family financial management. Having training in cash flow management and knowledge of the financial marketplace is indicative of greater ability to manage the family's financial resources. In today's changing economic environment, some families may be overwhelmed by the complexity of the financial management decisions they must make. Lack of knowledge of the complexities of the financial market is expected to constrain the extensiveness of cash flow management of families. Previous research on the determinants of cash flow management suggests that the extent to which families engage in cash flow management depends upon their ability to accomplish the tasks. In Godwin and Carroll's (1986) study, if wives or husbands had any type of education in financial management, they reported more extensive financial management. Similarly, in a study of Iowa households Beutler and Mason (1976) found that greater budget formality in families was reported by more educated and older respondents. Mullis & Schnittgrund (1982) suggested that one possible explanation why their low income "non-budgeting" families did not use more formal styles of cash flow management is that they "feel inadequately prepared to use budgeting successfully" (p. 118). The implicit hypothesis of educational programs aimed

at increasing skills at financial management is that such abilities will increase the frequency of such activity.

According to Deacon and Firebaugh (1988), demands on the family also influence the frequency of managerial behavior through their effect on the need for families to manage. Families' need to engage in more extensive cash flow management is a function of their initial endowments of financial capital, as well as family circumstances that create financial needs. In previous studies, this has been captured by use of such variables as family size, life cycle stage, and life events scales. In Beutler and Mason's (1987) study, a modest positive relationship between budget formality and the intensity of family demands suggests that families who perceive a greater need for formal budgeting are more likely to practice it. Income is conceptualized here as an additive variable reflecting family need to manage (whereas, in most previous studies, it has been conceptualized as a family resource). When family income is high, there is more "cash" to manage and, perhaps, more decisions to make about its allocation. As evidenced by previous research (Hefferan, 1982; Davis & Schumm, 1987), there appear to be threshold levels of family income, income adequacy, and wealth below which families' ability to engage in some financial management behavior is constrained. Very low income may force families to focus on the immediate consumption needs to the exclusion of future-oriented management behaviors. However, the more likely effect of low income is to increase the need for management. Because of the relative scarcity of money, there may be more motivation among low income families to monitor income and expenses, assess and adjust expenditures, and keep financial records.

But, there are other aspect of income besides the total amount, such as how many sources their income they have and how certain and stable the family's income is, that may capture families' need to manage. Families who have more sources of income (e.g., from previous savings and investment) may have a greater need to manage because of the complexities of their assets and the financial markets and institutions with which they deal. It is likely that income from sources other than regular wages and salaries is more variable and perhaps more sporadic than earned income. Everything from monitoring income to budget balancing and balance sheet assessment may increase in complexity with the number of sources of family income. Families who are less certain of their future income may also feel a greater need to manage their cash flow more regularly and extensively. Uncertainty about future income availability or amount should increase the frequency and amount of attention given to managing it.

Based on this literature, two hypotheses are posed regarding the second objective of this study--to investigate the antecedents of couples' cash flow management. A first hypothesis is that couples' ability to perform cash flow management tasks will affect their performance of those tasks; i.e., the more able couples are to manage their cash flow, the more extensive will be their cash flow management. The second hypothesis is that the greater couples' need to manage their financial resources, the more extensive will be their cash flow management behavior.

Deacon and Firebaugh's model does not mention attitudes toward management or include any element that encompasses perceptions of the expected value of cash flow management for the family. Their model suggests that the more families know how to manage and the greater the need to manage, they more they will do. What about the expected benefits from such management? What about the costs to families in terms of spending time and energy in these tasks? If families do not believe spending time in cash flow management will do much good, or if they do not feel the benefits would exceed the cost of such management, why would they do it? No theoretical or conceptual framework within family resource management encompasses such an idea. However, subjective expected utility theory (Fishbein & Ajzen, 1975) provides a framework for analyzing the willingness of families to manage and suggests that individuals' decisions to engage in a specific behavior are dependent upon the rewards and costs they expect to result. Behavior will be performed when the expected benefits of a behavior exceed the costs of performing it. The more net benefits families expect from engaging in cash flow management, the more willing they will be to devote scarce time and energy to such tasks. Therefore, a final antecedent of the extensiveness of family cash flow management is their willingness to spend their scarce resources of personal time and energy in such tasks. The third hypothesis is that couples will perform cash flow management tasks more frequently when they are more willing to do so.

Family members' attitudes toward financial management have rarely been investigated in previous work, but when they have been assessed, results suggest some support for this hypothesis. Moderate positive correlations have been found between spouses' attitudes toward financial management and the number of financial management tasks they reported practicing (Godwin & Carroll, 1986). Such factors as individuals' attitudes toward planning (whether it is seen as important and beneficial versus burdensome), their time horizon (future vs. present orientation), their feelings of control, and the perceived

benefits of cash flow management all should relate to how extensively families perform cash flow management tasks.

Consider the implications for educational programs and financial counselors that flow from a test of these three hypotheses. Depending on the factors found to influence cash flow management, the prescriptions for education and intervention may be very different. If families do not engage in cash flow management because they do not perceive it to be beneficial, programs would need to focus on the prospective benefits of more extensive management. However, if families are convinced of the benefits of cash flow management, but are unable to do it adequately, education would need to focus on enhancing spouses' knowledge and skills in the tasks of cash flow management and their confidence in performing them.

Consequences of Cash Flow Management

For decades, family finance textbooks have recommended that families practice a variety of financial management tasks with the implicit promise of better financial outcomes for those who take the advice. According to the textbooks, budgeting, record-keeping, financial goal-setting, and assessing the family balance sheet leads to better financial status as a result. But, little research has investigated whether these recommendations "work", i.e., whether families who perform the recommended tasks have better financial outcomes. Only a few recent studies have assessed the relationships between financial management behavior and financial outcomes such as net worth and families' satisfaction with finances.

Objective Financial Status of Families

One possible outcome of better cash flow management is improved financial status, e.g., higher net worth, more liquid savings for emergencies, and lower debt/asset ratios. Evidence of the effectiveness of cash flow management would be that it results in better financial status, independent of what would have occurred anyway. Some previous work has examined changes in the objective financial status of families over time, but few studies have investigated whether families' cash flow management behavior has affected the amount or direction of change.

Two studies (Foster & Metzen, 1981; Hefferan, 1982) have examined factors related to change in family net worth, although both use data from prior to 1973. Each study investigated socioeconomic factors as influences on family

financial status. Factors such as income, prior asset holdings, education, and wives' employment and earnings affected changes in net worth. Families increase their net worth more with higher income and assets and greater human capital. But, problems with these studies, such as their low explanatory power and the complex patterns of effects found when the samples were disaggregated, imply that additional factors affecting families' financial status need to be investigated. As Hefferan (1982) speculates, "the level of saving within a family depends not such much on income as on preferences for, and past experience with, saving... Income constrains all family budget decisions, but motivation and experience may also be important constraints" (p. 54-55).

As important as financial and human capital may be in influencing families' financial status over time, other factors, such as the efficacy of their cash flow management, should explain additional variance in the net worth of families with similar incomes at similar life cycle stages. In Beutler and Mason's (1987) study of 665 Iowa families, their budget formality had a small positive effect on their net worth and their preparedness for a large emergency, even after income, life cycle stage, age and life events were controlled. Similarly, Titus, Fanslow and Hira (1989) found in a sample of 123 Iowa households that net worth was higher when the family did more financial planning; this effect was moderately strong and held even when income, age, and household size were controlled. They found no significant relationship between families' net worth and the extent to which they more frequently engaged in financial implementing behaviors. In each case, the lack of stronger or more significant effects of financial management behavior on families' financial outcomes may be related to the limited measure of such behaviors that they used.

Satisfaction with Financial Status of Families

Another outcome of families' cash flow management is their satisfaction with their financial situation. While an objective indicator such as net worth presumes that all families have wealth accumulation as a goal, using a subjective indicator such as satisfaction recognizes that families have a variety of financial goals and needs. Just as there has been no consistency in the definition of family cash flow management, there is no consensus on the appropriate conceptualization of satisfaction with finances. Several researchers (Davis & Schumm, 1987; Garman, Lytton & Dail, 1988; Jeries & Allen, 1986; Lawrence, Carter & Verma, 1987) have assessed some aspect of satisfaction via a single general item. Other studies have used multiple item measures. Godwin and Carroll (1985) used 11 items such as satisfaction with

level of consumption of durable and nondurable goods, savings, and record-keeping to measure subjective outcomes. Davis and Helmick (1985) defined their construct to include satisfaction with consumption, wealth, and financial security (itself an index of family savings, emergency reserves, and expectations of future financial well-being). In their analysis of couple consensus, Wilhelm and Iams (1986) assessed satisfaction with level of income, ability to handle financial emergencies, savings, and debt. They also included the couples' assessment of their financial situation over time (i.e., how well off they feel this year compared to last) and their satisfaction with their financial situation relative to other families' situations.

Despite the differences in measurement, there have been some consistent findings regarding influences on family financial satisfaction. Families with higher incomes have consistently been found to be more satisfied (Beutler & Mason, 1987; Davis & Helmick, 1985; Davis & Schumm, 1987; Williams, 1985), although in some studies (e.g., Godwin and Carroll, 1985; Davis & Schumm, 1987) a modest positive but nonsignificant relationship was found for some groups. Other objective indicators of financial status, among them net worth (Davis & Helmick, 1985), level of savings (Davis & Schumm, 1987; Hira & Nagashima, 1988), and debt/income ratio (Davis & Helmick, 1985), also have been found to relate positively to financial satisfaction.

Human capital of family members has been found to relate only sporadically to families' financial satisfaction. Age has been found to relate positively to satisfaction in several studies (Garman et al., 1988; Hira & Nagashima, 1988; Lawrence et al., 1987; Titus et al., 1989), but not in others (Williams, 1985; Beutler & Mason, 1987). Williams (1985) found more educated family members to be more satisfied with their finances, but in several other studies with additional factors controlled, spouses' education had no effect on their satisfaction (Beutler & Mason, 1987; Davis & Schumm, 1987; Godwin & Carroll, 1985; Hira & Nagashima, 1988).

Families' attitudes toward financial management also have been investigated as influences on their satisfaction. Davis and Helmick (1986) analyzed satisfaction in relation to "reference points"--aspirations for improvement in financial status and perceptions of changes in status. Spouses' reference points were consistently the strongest predictors of financial satisfaction, even when income and net worth were included. Davis & Schumm (1987) found couples' values about financial security to be strongly related to their savings. The observed relationship between the importance of savings and financial security

and families' satisfaction was curvilinear; subjects' satisfaction with their savings decreased as the importance they placed on savings reached its highest peak.

Relatively few studies have examined the relationship between the cash flow management behavior of families and their financial satisfaction. Those that have studied this have found mixed results. For example, Godwin and Carroll (1985) found a positive relationship between the frequency of financial management behavior and husbands' satisfaction, but the same relationship was not found for wives' satisfaction. Williams (1985) found the opposite, i.e., more extensive financial management positively influenced women's satisfaction, but was not significantly related to men's. Jeries and Allen (1986), studying married college students, found no relationship between their budgeting and record-keeping of expenditures and their satisfaction. The only practice that was related to college students' satisfaction was record-keeping; students were more satisfied when they reported they diligently recorded expenditures by check. In Beutler and Mason's (1987) study, budgeting formality was related to neither family satisfaction with level of living nor their perceived income adequacy. Titus et al. (1989) found subjects to be more satisfied with their finances when they did more financial implementing tasks, but their financial planning behavior did not relate to their reports of financial satisfaction.

It is implicitly promised in family finance textbooks that one route to better objective financial well-being and greater satisfaction with finances is for families to practice what the textbooks preach. The third objective of this study is to test the extent to which that holds. Thus, the fourth hypothesis is that engaging in more extensive cash flow management behavior will result in better objective financial status. The fifth hypothesis is that more extensive cash flow management will lead to greater satisfaction, including not only couples' satisfaction with the process and outcome of their management, but also their comparative satisfaction, relative to where the family thought they would be and compared to other similar families.

The effect of family cash flow management behavior on financial outcomes will be assessed in a multivariate model in which other plausible causes of families' objective and subjective financial status are controlled. Although these hypotheses are thought to be generalizable to all families, they are tested with a sample of newlywed couples in their first year of marriage. Although limiting in terms of external validity, testing the hypotheses on a sample that

is homogeneous in terms of family size and stage of the family life cycle controls a number of potentially important confounding variables, including differences in financial needs based on life cycle changes and family size demands.

Methods

Sample and Data Collection

Newlywed spouses were selected through a two-stage random sampling process. First, 53 counties in Georgia were selected from its 159 counties.¹ Then, marriage license applications in the county offices were systematically randomly sampled to obtain a mailing list of newlywed couples in their first marriages. Of the approximately 4200 names gathered, 800 were randomly sampled from the list. In May, 1992 questionnaires were mailed to the couples with a cover letter and a self-addressed, return postage guaranteed envelope, using Dillman's (1978) techniques. A follow-up postcard and another questionnaire were sent approximately two and four weeks later, respectively. Because of undeliverable questionnaires, ineligible couples and nonreturns, the data for this analysis are from 256 newlywed couples.²

The cover letter instructed that the spouses who was primarily responsible for the finances should complete the questionnaire. In 38.4% of the cases the husband completed the questionnaire, in 27.5% the wife completed the questionnaire, and in 34.1% of the cases it was completed by both spouses. This reflects the couples' perceptions of their roles in the financial management process. The couple is the unit of analysis, although some of the variables represent individual traits of one or the other of the spouses and other variables represent the status of the couple.

Table 1 on page 173 shows descriptive data on the sample. The sample spouses were mainly in their twenties, although over one-fifth of the husbands and one-tenth of their wives were 30 or older, not unexpectedly given today's higher average age at marriage. Husbands' and wives' education averaged about 14 years. The husbands were employed in many occupations, ranging from professionals to unskilled laborers. Of the 75% of wives who were employed, over one-third worked in sales or clerical jobs. About 25% of both husbands and wives had received some form of training in financial management issues at some time in the past.

Measures

The measurement and descriptive data on the indicators of families' need, ability, and willingness to manage are also shown in Table 1. The indicators of ability to manage included the age of the financial manager in years. If the couple indicated that both completed the questionnaire, then the age of the husband, which were highly correlated with the wife's (.83), was used. Another indicator of ability was whether the financial manager had any prior training in financial management. Again, if both spouses completed the questionnaire, the husbands' prior training variable was used. The final variable representing couples' ability to manage was the employment status of the wife, a dichotomous variable coded one if the wife was employed in a paid job and zero otherwise.

The couples' need to manage was measured by four variables. Total family money income before taxes in 1991 was measured with a single question with 18 ranges of income available (\$0, \$1 - 2499, \$2500 - 4999, \$5000 - 7499 ... \$60,000 - 69,999, \$70,000 - 79,999, \$80,000 and over). Responses were recoded to the midpoints of these categories and treated as a continuous variable. Respondents were asked whether they received any income during 1991 from any of 12 different sources; they answered yes or no to each source. The variable, number of sources of income, was the total number of sources from which they received any income. A third variable representing need to manage was the certainty of income receipt by the couple. One Likert-type item measured this variable, which was treated as a continuous variable. The final variable capturing the couples' need to manage was the number of major changes that occurred in their household during 1991. The respondent was asked whether any of six major structural or situational changes (added or lost family member, started or quit job, experienced unemployment or significant health problem) had happened to them. The continuous variable computed was the sum of the number of household changes that had occurred.

Table 1
Measurement of Variables in the Model and Sample Characteristics

Variable	Unit of measurement	Mean	Std. dev.	Min.	Max.
Ability to Manage					
Age	Age of financial manager	25.53	4.39	18	43
Education	Years of schooling completed by financial manager	14.28	2.51	4	21
Family financial mgt. training	Whether husband had any training in financial management (0=No; 1=Yes)	.25	----	0	1
Wives' employment	Whether wife is employed in paid job (0=No; 1=Yes)	.75	----	0	1
Need to Manage					
Income	Total family money income before taxes in 1991	\$35,722	22,553	0	90,000
Sources of income	Number of sources of income from: • Interest from checking, savings, stocks, bonds, etc. • Each spouses' earnings • Other sources	3.29	1.58	1	8
Certainty of income	How certain are you that you will receive the same amounts of income from main sources next year? 5=Very, 4=Certain, 3=Neither, 2=Uncertain, 1=Very uncertain	4.04	1.05	1	5
Changes	Number of major changes in 1991 • Added a child to household • Lost household member(s) • Either spouse quit or started a job • Either unemployed • Either had a significant health problem	1.67	1.46	0	6
Willingness to Manage					
Feelings of control alpha = .70	Index of four Likert-type statements • Don't have enough control over the direction my life is taking. • Pretty sure my life would work out the way I want it to. • Haven't always been sure that my life would work as I planned. • Have little influence over things that happen to me. (1=Strongly disagree; 5=Strongly agree)	13.70	2.79	4	20
Attitudes toward planning alpha = .63	Index of three Likert-type items • Planning is essential to successfully managing one's life. • Thinking about where you will be financially in 5-10 yrs. is essential for financial success. • Planning for the future is the best way of getting ahead. (1=Strongly disagree; 5=Strongly agree)	12.86	1.79	6	15
Time horizon alpha = .74	Two 11-point semantic differentials • Do you think a lot about things that might happen in the future (11) vs. usually take things as they come (1)? • Are you the kind of person that plans life ahead all the time (11) vs. lives more from day to day (1)?	14.09	4.37	2	22

Table 1 (continued)
Measurement of Variables in the Model and Sample Characteristics

Variable	Unit of measurement	Mean	Std. dev.	Min.	Max.
Perceived benefits of cash flow management alpha = .85	Index of six Likert-type statements: "Doing more financial mgt. would..." • be easier to pay our bills • help us be able to afford more luxuries that we want • help us have money set aside in case of emergencies • help us avoid arguments about money • help us be able to afford more of the things we need • help us stay out of debt trouble (1 = Very uncertain; 5 = Very certain)	21.80	4.57	6	30
Cash Flow Management					
Budgeting alpha = .89	Index of 10 items • Estimate income • Estimate fixed expenses • Estimate flexible expenses • Reestimate expenditures • Monitor balance (1 = Never; 5 = All the time)	34.34	7.23	11	50
Goal-setting & balance sheet alpha = .82	Index of 7 items • Set short-term goal (1 year) • Set long-term goal (5-10 years) • Assess assets • Assess emergency funds • Decrease spending	20.42	5.48	7	35
Record-keeping alpha = .83	Index of 5 items • Record income in writing • Record most spending in writing • Record every dollar of spending	15.12	4.48	5	25
Financial Outcomes					
Net Worth	Total assets - total liabilities Assets = sum of 29 assets valued at fair market value Dec. 31, '91 Liabilities = sum of 19 outstanding loan balances on Dec. 31, '91	\$49,184	92,175	-44,400	852,920
Financial satisfaction alpha = .87	Index of 5 Likert-type items • way you manage your money • financial situation • compared to where you thought you would be, financial situation • compared to other families you know, financial situation • way you divide up financial management tasks (1 = Very dissatisfied; 5 = Very satisfied)	18.32	4.18	5	25

Four variables were measured that captured some aspect of families' willingness to manage. The first three variables were derived from a factor analysis of a set of 20 items that had been adapted from previous instruments in a pilot study. Principal components factor analysis with varimax rotation was used to discern whether there were underlying common components or factors that could more parsimoniously represent the variability in a larger number of variables. Item loadings show the relationship of each item to the underlying factor and are used to determine whether an item "loads" on a factor. A factor loading cut-off point of .40 was used to identify each item that loaded on each factor. These factors were then analyzed for the content of the items that load on each. Cronbach's alpha coefficient was then computed from each scale calculated from the factor analysis; it measures the average interitem reliability of the items for measuring a theoretical construct. The higher the Cronbach's alpha, the more reliable the scale is.

The analysis yielded four factors, the first three of which were named feelings of control, attitudes toward planning, and time horizon. Each of the computed variables is the sum of the items that had loadings of .40 or higher on its respective factor. The exact items comprising each index are shown in Table 1. Feelings of control indexed four Likert-type statements measuring the extent to which respondents felt that their lives were under their control; the scale had an Cronbach's alpha reliability of .70. Three Likert-type items comprised the attitudes toward planning scale, which had an alpha reliability coefficient of .63. The time horizon variable was composed of two semantic differential items where the ends of a bipolar continuum were anchored with the phrases "think a lot about things that might happen in the future" and "usually take things as they come" for one item and "kind of person that plans life ahead all the time" and "lives more from day to day" for the second item. A line under the phrases included the numbers one to 11 and respondents were asked to circle the number that best represented their view of themselves. This index had a Cronbach's alpha of .74. The fourth indicator of willingness was a scale developed by the authors to more exactly represent Fishbein and Ajzen's notion of subjective expected utility, i.e., respondents' perceptions of the benefits of doing more cash flow management. Respondents were asked how certain or uncertain they were that cash flow management would produce each of six possible benefits. A five-point Likert-type response format was available, ranging from very certain to very uncertain. The variable was computed by summing responses to the six items and was treated as a continuous variable; it had an alpha coefficient of .85.

To operationally define family cash flow management, a first step was to develop an inventory of normative prescriptions recommended by current textbooks. Textbooks on family finance (e.g., Garman & Forgue, 1988; Gitman & Joehnk, 1987; Rosefsky, 1989; Winger & Frasca, 1986) typically include the following as part of the cash flow management process: (a) assess the family's financial position via a balance sheet (i.e., analyzing assets, liabilities, and net worth), (b) assess the past financial behavior with a cash flow statement (i.e., analyzing past income, expenditures and surplus or deficit), (c) project the goals which the family would like to achieve, both long-term and short-term, (d) attach time horizons and dollar values to prioritized family goals, (e) project family income over a future period, (f) plan expenditures for fixed and flexible consumption categories, (g) analyze the preliminary surplus or deficit, (h) if necessary, adjust planned expenditures to balance the budget, (i) analyze irregular expenditures and plan savings to make cash available when needed, (j) record and monitor income and expenditures as they occur, (k) if necessary, adjust expenditures, (l) analyze and evaluate the plan and its implementation at the end of the period, (m) begin the process again for the next period. Twenty items reflecting these tasks were developed for the measure of cash flow management instrument.

One obvious dimension of cash flow management is whether families perform each task. Early studies (e.g., Dickins & Ferguson, 1957; Honey & Smith, 1952; Van Bortel & Gross, 1954) and more recent researchers (e.g., Mullis & Schnittgrund, 1983) measured merely whether families engaged in these tasks, e.g., whether they planned or whether they "budgeted." However, some of the tasks are optimally performed once a year, such as projecting income and expenditures. Others, such as monitoring expenditures, are optimally performed continuously over the year and even then, are contingent upon the need for doing such (e.g., adjusting family expenditures). Thus, the frequency with which each activity is performed should be measured and patterns of how frequently typical families engage in such activities should be investigated. Respondents were asked how frequently they performed each task and a 5-point Likert-type scale, ranging from all the time (coded 5) to never (1) was the response set.

The two financial outcomes measured were family net worth and satisfaction with their finances. Net worth was computed from summing the reported dollar value of all of the couple's assets valued on December 31, 1991 and subtracting the outstanding liabilities as of December 31, 1991. Financial satisfaction was a index of five Likert-type items with response sets ranging

from very dissatisfied to very satisfied. The alpha reliability for this scale was .87.

Data Analysis

The hypotheses were tested with multiple regression analyses. Each dimension of cash flow management was regressed on the indicators of need, ability, and willingness to manage. Each financial outcome, net worth of the couple and financial satisfaction, was regressed on the three dimensions of cash flow management behavior, in addition to the indicators of need, ability, and willingness. Standardized regression coefficients (Beta weights) reveal the relative importance of each independent variable in relation to the dependent variable.

Results

Frequency of Cash Flow Management

The first objective of this study, describing the cash flow management of newlyweds, included exploring the conceptual dimensions of the cash flow management construct using an instrument that more comprehensively examined couples' behavior. A principle components factor analysis of these 20 items was performed (Appendix). Three factors that collectively retained 58% of the variance in the original items were formed. An item was placed in a factor if its factor loading was .40 or greater. The first factor retained 10 items focusing on estimating income and expenditures, and balancing and monitoring the budget. The second factor included 7 items, including setting short-and long-term goals, and assessing assets, debts, and emergency funds (liquid assets). The third factor included 5 items on recording and assessing income and expenditures.

The average frequency with which newlywed couples performed the tasks of cash flow management is also shown in the Appendix. The typical newlywed couple reported doing the budgeting tasks between "sometimes" and "frequently" (as indicated by the means for these items which are mostly in the range between 3.00 and 4.00). About one-tenth of these couples reported that they budgeted "all the time". Very few couples reported that they "never" did the budgeting tasks. The goal-setting and balance sheet assessment tasks were typically performed by newlywed couples between "rarely" and "sometimes." Compared to the proportion who never did the budgeting activities, a larger proportion, almost one-third of families, reported they "rarely" or "never" set

goals or assessed their assets and debts. Typical newlywed families reported that they "sometimes" did record-keeping, with about equal proportions performing record-keeping tasks both more and less frequently than that. It appears that, while there is a minority of families who perform very few of the recommended tasks of family cash flow management, most newlywed couples do many of the tasks at least sometimes during their first year of marriage. There appears to be a lot more cash flow management activity, performed more frequently, among newlywed couples than has been previously reported. Of course, these higher estimates of the frequency of family cash flow management behavior may result from the use of a more extensive set of items to measure the construct.

Table 2
Regressions of Antecedents of Newlyweds' Cash Flow Management on Demographic and Attitudinal Variables.

Antecedent	Budgeting/ monitoring	Goal-setting assessment	Record-keeping
<i>Ability to manage</i>			
Financial manager's age	-.17 *	-.07	-.09
Financial manager's training	-.10	.11	.15 *
Wife's employment	.05	.03	.14 *
<i>Need to manage</i>			
Family income (1000's)	-.10	.00	-.12
Number of sources of income	-.08	-.14 *	.01
Income certainty	.01	-.16 *	-.04
Changes during year	.09	-.05	.05
<i>Willingness to manage</i>			
Feelings of control	.09	.15 *	.20 **
Attitudes toward planning	.23 ***	.21 **	.15 *
Time horizon	.10	.10	.06
Perceived benefits of c.f.m.	.16 *	.13 *	.03
Adjusted R ²	.17	.10	.10
F-value	5.39 ***	3.36 ***	3.34 ***
* p < .05 ** p < .01 *** p < .001 ^a p < .10			

Antecedents of Cash Flow Management

Investigation of the antecedents of the frequency of spouses' cash flow management was the second objective of this study. Three types of antecedents were hypothesized to relate to the frequency of cash flow management of newlywed couples. Table 2 shows the results of regression

analyses of the three dimensions of couples' cash flow management on families' ability, need and willingness to manage.

The first hypothesis, that couples with more ability to manage will do cash flow management more frequently, received some support, primarily regarding record-keeping activities. Looking across the first three rows in Table 2, it appears that financial manager's age is negatively related to budgeting and monitoring, while financial manager's training and wife's employment are both related to the frequency of newlyweds' record-keeping. Couples in which the financial manager had some past training in financial management and in which the wife was employed engaged in financial record-keeping more frequently than other couples. It appears that ability to manage may explain some of the record-keeping activity of newlywed couples. In addition, younger, less experienced couples performed the budgeting activities more frequently than older newlyweds; this is opposite of the finding expected if older age indicates greater experience with and ability to perform the tasks of financial management. This finding may result from the fairly strong relationship ($r = .47$) between age and income. Younger couples have lower incomes, which in turn may increase the need for careful cash flow management. In order to investigate this possibility, the regression for budgeting was redone excluding age from the analysis. In this equation, the coefficient for family income ($-.06$) was statistically significant ($t = -2.77$, $p < .01$), indicating that couples with lower income performed budgeting more frequently than higher income couples. This finding indicates that, in the previous equation, age may not be capturing the effect of ability so much as it indicates the need to manage that accompanies having a lower income constraint.

The second hypothesis was that cash flow management would be more frequent among newlywed couples with a greater need to manage their resources. This hypothesis received limited support and only for the activity of goal-setting and assessment. The next four rows in Table 2 show that the only "need" variable significantly related (at the .05 level) to a dimension of cash flow management was the degree of income certainty the couple reported, although the number of sources of income was significant at $p < .10$. The fewer sources of income a couple had and the less certain they were that their income would be stable, the more frequently the couple set goals and assessed their progress toward achieving those goals. The indicators of need to manage had no significant effect on either the frequency of budgeting or record-keeping activities of newlywed couples.

Couples' willingness to manage was the third hypothesized antecedent of newlyweds' cash flow management. This hypothesis received the most support of the three. Couples' feelings of control were instrumental in two dimensions of cash flow management--the frequency of goal-setting/assessment and record-keeping. The more they believed that they had control of their lives the more frequently they set goals and kept financial records. Couples' attitudes toward planning was related to all three dimensions of cash flow management. The more essential and beneficial the couple viewed planning for the future, the more frequently they budgeted their resources, set and assessed future goals and kept financial records. The measure of perceived benefits also related to two cash flow management activities, although this variable was related to goal-setting at only the .10 level. The more beneficial they viewed cash flow management in terms of helping them manage, the more frequently they budgeted and set and assessed goals. Of the three categories of antecedents, these indicators of willingness to manage demonstrated the most consistent and strongest (as indicated by the size of the standardized coefficients) on the cash flow management of the couples.

Consequences of Cash Flow Management

The third objective of the study was to assess the effects of cash flow management on both objective and subjective measures of financial outcomes. Table 3 shows two regression analyses testing fourth and fifth hypotheses on the effects of newlyweds' budgeting, goal-setting, and record-keeping behavior on their net worth and their financial satisfaction.

The regression of couples' net worth revealed no support for the fourth hypothesis. Only the frequency of couples' record-keeping was significantly related to their net worth and the relationship was the opposite of that hypothesized. The Beta weight of -.21 indicates that the more frequently the couples kept and analyzed financial records, the lower was their net worth. This negative effect of record-keeping on net worth occurs not because families with lower incomes have lower net worth, because the effects of dollar income and several other dimensions of income are controlled in the analysis. At least in the short term, performing the recommended tasks of cash flow management more frequently produced no objective benefit for newlywed couples.

Table 3
Regressions of Consequences of Newlyweds' Cash Flow Management on Demographic and Attitudinal Variables.

Variable	Net Worth	Financial Satisfaction
Ability to manage		
Financial manager's age	.04	-.13 a
Financial manager's training	.08	.03
Wife's employment	-.05	-.07
Need to manage		
Family income (1000's)	.17 *	.11
Number of sources of income	.21 **	.15 *
Income certainty	-.04	.18 **
Changes during year	-.03	-.14 *
Willingness to manage		
Feelings of control	.14 *	.20 **
Attitudes toward planning	-.00	-.06
Time horizon	.02	.14 *
Perceived benefits of c.f.m.	.01	-.06
Cash flow management		
Budgeting & monitoring	-.05	-.10
Goal-setting & assessment	.11	.12
Record-keeping	-.21 *	.18 *
Adjusted R ²	.15	.29
F-value	3.73 ***	7.80 ***
* p < .05 ** p < .01 *** p < .001 a p < .10		

However, several other factors were significantly related to the couples' net worth. The higher the income and the more sources of income the couple had, the higher was their net worth, relationships that are entirely expected. Additionally, the greater the sense of control over their lives the newlyweds reported, the higher the couples' net worth. The adjusted R² for this equation shows that about 15% of the variance in couples' net worth was explained by the equation. An equation including all of the ability, need, and willingness variables, but excluding the cash flow management variables had an adjusted R² of .13. This indicates that the addition of the three cash flow management variables added no significant explanatory power to the equation, additional evidence that the fourth hypothesis was not supported.

The final hypothesis was that more frequent cash flow management would produce a greater sense of satisfaction with their financial status. Again, the only significant effect of any of the cash flow management variables was found

for frequency of record-keeping. The Beta of .18 indicates that couples who reported more frequently recording and analyzing their finances were more satisfied with their financial status. This relationship held even when several other antecedents were controlled. But neither the frequency of budgeting nor goal-setting and assessment significantly affected the couples' satisfaction.

Several other factors were also related to the newlyweds' financial satisfaction. Couples with more different sources of income and those who felt they could predict their income in the future were more satisfied, as were those who had experienced fewer changes in their family circumstances during the first year of marriage. Couples who felt more in control and those with a future-oriented time horizon felt more satisfied with their financial status. Additionally, there is some indication that younger couples were more satisfied with their financial status than older couples.

The adjusted R^2 for this equation indicated that 29% of the variance in newlywed couples' financial satisfaction was explained by the equation. An equation excluding the three dimensions of cash flow management had an adjusted R^2 of .26, a small difference from the full equation. Adding the three cash flow management variables to the analysis did not add much additional explanatory power to our understanding of the financial satisfaction of newlywed couples.

Because there was some evidence of an effect of record-keeping frequency on couples satisfaction, further analysis of the sources of such satisfaction was warranted. To further explore the relationships between performing cash flow management tasks and newlyweds' satisfaction, a series of one-way analyses of covariance were performed. Couples whose satisfaction index scores were 20 or greater ($n = 112$) were labelled satisfied, whereas those scoring lower than 20 were designated ($n = 143$) dissatisfied. These two groups of couples were compared on the individual tasks of cash flow management, after controlling for the other variables that were significant in the regression analysis (financial manager's age, number of sources of income, income certainty, changes, feelings of control, and time horizon). Table 4 on page 186 shows a profile of the differences in the frequency of performing the cash flow management tasks between satisfied and dissatisfied couples.

As expected from the regression results, these two groups of couples differed on all five of the record-keeping tasks. Satisfied couples performed the record-keeping and assessment tasks more frequently than dissatisfied couples.

As indicated by the mean scores, the typical satisfied couple recorded their income and spending and assessed their fixed expenditures several times a month, while dissatisfied couples did the same tasks significantly less frequently. Satisfied couples assessed their flexible expenditures about once a month or so and recorded every dollar of spending a few times a year on average.

Although the goal-setting and assessment variable was not significantly related to couples' satisfaction in the previously-reported regression, two of the individual tasks in that index were performed with different frequencies by satisfied and dissatisfied couples. Satisfied couples more frequently set a short-term financial goal than did dissatisfied couples. Satisfied couples engaged in goal-setting about once a month on average, while dissatisfied couples did this an average of only a few times a year. There were also significant differences in how often the couples assessed the amount of emergency money available. Satisfied couples assessed their emergency funds about once a month, while dissatisfied couples did so less frequently.

Discussion

The purpose of this study was to explore the process and outcomes of cash flow management among newlywed couples beginning their marital and financial life course together. Describing the frequency and patterns of couples' cash flow management was a first objective. Family cash flow management among newlywed couples is not an all or nothing phenomenon. When previous studies have asked families questions such as "whether they have a budget", responses have generally shown high proportions of affirmative responses. For example, Davis and Carr (1992) found that 88% of "beginning" families sampled in Kansas in 1984 had a budget, although over half of them reported their plan was "mainly mental." Rather than focusing on a dichotomous yes-no question, this study investigated the frequency with which newlywed couples reported that they performed 20 discrete tasks described in family finance textbook as "cash flow management." Results revealed quite a bit of variability in the frequency with which newlyweds performed three different types of cash flow management. The most frequent tasks were those traditionally associated with budgeting--projecting and assessing future income and expenditures and balancing the two--which was done by about half of all newlywed couples frequently or all the time. Financial record-keeping was also performed

frequently or all the time by about one-third of the newlywed couples. Fewer newlywed couples reported setting goals and assessing their balance sheet data as frequently.

A second objective of the study was to investigate why some newlywed couples did more of these tasks than others. The most consistent antecedents of newlyweds' cash flow management were indicators of the couples' willingness to manage--their attitudes toward planning, their locus of control, and their perceptions of the benefits of management for their daily lives. Couples who believe that planning is important and produces benefits that outweigh its costs engage in all three types of tasks more frequently than those who believe planning is burdensome and not worth its costs in time and inconvenience. Couples who feel in control of their lives report more frequently engaging in the type of future-oriented goal-setting and assessment and record-keeping that the textbook authors recommend.

The implication of this finding for educators and practitioners is clear. It has generally been assumed that when families don't manage their finances effectively, it was because they lacked the knowledge or skills to do so. But, the importance of the families' willingness to manage in explaining variation in families' cash flow management calls this assumption into question. It is not enough to teach people how to manage or to particularly focus on those families whose need for cash flow management is greatest because of limited resources or greater situational demands. In order to increase the use of the recommended cash flow management practices, potential clients must be convinced that planning is important, that they can indeed influence what happens to them financially, and that managing better can provide important benefits to them. First prospective audiences must be motivated to do cash flow management, in addition to, or perhaps instead of, teaching them the specific skills of budgeting, record-keeping and financial statement analysis.

It is also important to note the absence of several expected effects of other variables. Few of the indicators of families' ability and need to manage were consistently related to their cash flow management. Age was related only to the frequency of budgeting, with younger couples more frequently engaged in budgeting than older couples. Education and wives' employment were only related to the dimension of financial record-keeping. The absence of an income effect is also notable. The absolute level of family income had no effect on couples' budgeting, goal-setting and assessment, or record-keeping. However, the number of sources of income and the certainty of income were

related to goal-setting. Couples with both fewer different sources of income and who were less certain of their future income more frequently set financial goals and assessed their progress toward those goals.

These results have some potential in terms of identifying potential target audiences for training from educators and financial counselors. Couples who do less of at least some of the tasks of cash flow management include younger couples, those with no prior training, couples in which the wife is not employed, those with fewer sources of income (i.e., one-earner couples, no prior savings and investment), and those with uncertain income (i.e., those with seasonal jobs, sporadic hours of work, and/or who work on commission instead of wages or salaries). These types of newlywed couples may benefit most from the efforts of educators and financial counselors.

The third objective of the study was to assess the consequences of newlywed couples' cash flow management. Family financial textbooks describe a process of cash flow management that, if systematically performed, is presumed to be beneficial to families. Beutler and Mason (1987) concluded that greater formality in the family budgeting process had an impact, albeit a modest one, on family net worth and preparedness for financial emergencies. Titus et al. (1989) concluded that effective financial management affected both families' net worth and their satisfaction. Results of these analyses in this study were that more frequent cash flow management had few short-term benefits for newlywed couples. Indeed, record-keeping may be inversely related to objective financial status. And only one dimension of cash flow management, the frequency of record-keeping, had a positive impact on the family's satisfaction with their finances. As Beutler and Mason cautioned, it is important to avoid concluding that there are no longer term benefits to cash flow management. They suggested, "it may be that the greater benefits are those, like the accumulation of wealth, that are realized in the longer run from the accumulated effects of years of effective management" (Beutler & Mason, 1987, p. 10). An extension of this study that follows newlyweds across the first few years of their marriage in a panel design is needed in order to assess this question.

The next important step is to replicate and extend these results with broader samples, taking advantage of and furthering some of the conceptual and methodological refinements of this study. It is important to examine the dimensions of cash flow management comprehensively and specifically in order to understand something other than whether families have a budget or

whether they write down their expenditures. It is also important to determine whether the patterns of behavior established early in a couples' marriage persist or change over their life course. Of course, the ultimate objective is to effectively resolve the question of whether better management results in better financial outcomes for the family.

Table 4
F-tests Comparing Satisfied to Dissatisfied Newlywed Couples

Cash flow management tasks	Satisfied couples(n = 112)	Dissatisfied couples(n=143)	F-value
<u>Record-keeping</u>			
Recorded in writing most spending?	3.38	3.00	6.01**
Recorded every dollar of spending?	2.52	2.18	5.46*
Assessed the amount of money you spent on flexible expenses?	3.05	2.80	3.91*
Recorded in writing your actual income?	3.46	3.18	4.34*
Assessed the amount of money you spent on fixed expenses?	3.58	3.30	3.80*
<u>Goal-setting & balance sheet assessment</u>			
Set a financial goal that you hoped to reach within a year?	3.15	2.78	6.09**
Assessed the amount of money you can use during an emergency?	2.95	2.49	12.57***

* p < .05 ** p < .01 *** p < .001 * p < .10

Endnotes

1. Originally, the counties were randomly selected from a list of counties in the state. However, the names of newlyweds in the various county offices were sampled by students for course credit. In a couple of instances, because of a lack of cooperation of county officials or students' logistical difficulties, a substitute county had to be sampled. Nevertheless, most of the counties sampled were randomly selected and the 53 counties were diverse, geographically and socio-economically. The initial list of over 4000 names available for the second stage random sampling helps ensure the representativeness of the newlywed couples sampled.
2. Of the questionnaires sent to the original 800 sampled couples, 105 packets were returned undeliverable (they had moved with no forwarding address, the forwarding address had expired, or the address was incomplete or unknown). Of the remaining 695, three envelopes were returned indicating the sample members were ineligible for the study (2 had divorced and 1 had moved out of the state), which left a total of 692 eligible couples who received questionnaires. Of these, 274 questionnaires were returned (274/692 = 40%). Of these 274, 18 questionnaires that were returned were discarded from the final sample because of incomplete answers, leaving a total of 256 returned, useable questionnaires. Only 6 (or <

1%) of the eligible couples responded with a refusal to answer the questionnaire, although of course, others implicitly refused by failing to respond to the multiple mailings.

3. This raises the question of what exactly is being reported for some of the variables, i.e., time horizon, attitudes toward planning, etc. When either husband or wife completed the items, it probably represents his/her individual perception. When the couple checked "both", these responses probably represent some "average" of the spouses' feelings. To check for whether this affected the analyses, one-way ANOVAs on all of the major variables by "type of respondent" (husband, wife, or both) were run and no significant differences were found.

Appendix

Factor Analysis of Cash Flow Management Scale

Item	Descriptive Data	
	Mean	Std.Dev.
1. ESTIMATED fixed expenses (rent, car payments, etc.) for a future period?	3.77	.94
2. ASSESSED whether expenditures are less than or equal to income?	3.54	.99
3. ESTIMATED expected income for a future period?	3.57	1.00
4. INCOME meet expectations?	3.43	1.10
5. REESTIMATED future expenditures after finding that they exceed estimated income?	2.92	1.11
6. MONITORED spending to determine if it is within income?	3.62	1.03
7. ESTIMATED flexible expenditures (food, clothing, recreation, etc.) for a future period?	3.55	.97
8. MONITORED spending?	3.44	1.01
9. ASSESSED the amount of money spent on fixed expenses?	3.42	1.01
10. DECREASE expenses to match income?	3.18	1.11
11. SET financial goal to reach w/in five-ten yrs?	2.63	1.23
12. ASSESSED value of owned goods?	2.39	1.10
13. SET financial goal to reach within a year?	2.94	1.17
14. ASSESSED total amount of debt?	3.21	1.18
15. ASSESSED amount of money that can be used during an emergency?	2.69	1.08
16. INCREASE income to match needs/wants?	3.37	1.07
17. RECORDED in writing most spending?	3.16	1.26
18. RECORDED every dollar of spending?	2.33	1.28
19. ASSESSED amount money spent on flexible expenses?	2.91	1.05
20. RECORDED in writing your actual income?	3.30	1.18
21. ASSESSED amount of money spent on fixed expenses?	3.42	1.01

Factor Analysis of Cash Flow Management Scale (continued)

Item	Factor 1 Budgeting & Monitoring	Factor 2 Goal-setting & balance sheet	Factor 3 Record- keeping	Communality
1. ESTIMATED fixed expenses for future	.80			.68
2. ASSESSED whether exp. <= income	.79			.68
3. ESTIMATED income for future	.70			.54
4. INCOME meet expectations	.66			.59
5. REESTIMATED future expenditures	.65			.48
6. MONITORED spending	.63			.63
7. ESTIMATED flexible expenditures	.63			.54
8. MONITORED spending	.54			.63
9. ASSESSED fixed expenses	.50			.62
10. DECREASE expenses to match income	.44	.51		.46
11. SET goal to reach in 5-10 years		.75		.63
12. ASSESSED value of owned goods		.69		.54
13. SET goal to reach within a year		.67		.58
14. ASSESSED total amount of debt		.64		.54
15. ASSESSED money for emergency		.61		.48
16. INCREASE income to match needs/wants		.56		.43
17. RECORDED in writing most spending		.81		.72
18. RECORDED every dollar of income			.76	.62
19. ASSESSED amount spent on flexible			.74	.70
20. RECORDED in writing actual income			.62	.53
21. ASSESSED amount spent on fixed	.40		.51	.62
Proportion of variance retained	24.2%	17.7%	15.9%	
Cronbach's alpha for index	.89	.82	.83	

References

Banks unit to fight rising tide of personal bankruptcy claims. (1991, January 12). *Athens Daily News*, p. 1-A, 3-A.

Beutler, I. F. & Mason, J. W. (1987). Family cash-flow budgeting. *Home Economics Journal*, 16, 3-12.

Canon, H. (1931). The family finances of 195 farm families in Tompkins County, New York, 1927-1928. Bulletin 522, Cornell University Agricultural Experiment Station, Ithaca, New York.

Davis, E. P. & Carr, R. A. (1992). Budgeting practices over the life cycle. *Financial Counseling and Planning*, 3, 3-16.

Davis, E. P. & Schumm, W. R. (1987). Family financial satisfaction: The impact of reference points. *Home Economics Research Journal*, 14, 123-131.

Davis, E. P. & Schumm, W. R. (1987). Savings behavior and satisfaction with savings: A comparison of low- and high-income groups. *Home Economics Research Journal*, 15, 247-256.

Deacon, R. E. & Firebaugh, F. M. (1988). *Family resource management*. Boston: Houghton- Mifflin.

Dickins, D. & Ferguson, D. (1957). Practices and attitudes of rural white children and parents concerning money: Lower coastal plains area, Mississippi. Technical bulletin 43, Mississippi State College Ag. Experiment Station, State College, MS.

Dillman, D. E. (1987). *Mail and telephone surveys: The total design method*. New York: Wiley-Interscience.

Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention and behavior*. Massachusetts: Addison-Wesley Publishing Co.

Foster, A. & Metzen, E. (1981). The impact of wife's employment and earnings on family net worth accumulation. *Journal of Consumer Studies and Home Economics*, 5, 23-36.

Garman, E. T. & Forgue, R. E. (1988). *Personal finance* (2nd edition). Boston: Houghton-Mifflin.

Garman, T., Lytton, R. & Dail, P. (1988). Factors associated with dissatisfaction with personal finances. *Proceedings of Southeastern Regional Family Economics-Home Management Conference*. Athens, Georgia.

Gitman, L. J. & Joehnk, M.D. (1987). *Personal financial planning* (4th edition). Chicago: Dryden Press.

Godwin, D. D. & Carroll, D. D. (1985). Spouses' attitudes, behavior, and satisfaction regarding family financial management: A path analytic model. *Proceedings of Family Economics/Home Management Workshop of American Home Economics Association*. Philadelphia, PA.

Godwin, D. D. & Carroll, D. D. (1986). Financial management attitudes and behavior of husbands and wives. *Journal of Consumer Studies and Home Economics*, 10, 77-96.

Hefferan, C. (1982). Determinants and patterns of family saving. *Home Economics Research Journal*, 11, 47-55.

Hira, T. (1987). Money management practices influencing household asset ownership. *Journal of Consumer Studies and Home Economics*, 11, 183-194.

Hira, T. & Nagashima, S. (1988). Money management practices and satisfaction with various aspects of household finances among Japanese. *Proceedings of the Association for Financial Counseling and Planning Education*. Lubbock, TX.

Honey, R.R., Britton, V. & Hotchkiss, A. S. (1959). Decision-making in the Use of Family Financial Resources in a Rural Pennsylvania Community. Bulletin 643, Ag. Experiment Station, Penn. State University, University Park, PA.

- Jeries, N. & Allen, C. M. (1986). Satisfaction/dissatisfaction with financial management among married students. *Proceedings of the American Council on Consumer Interest*. St. Louis, MO.
- Lawrence, F., Carter, C. & Verma, S. (1987). Financial satisfaction in relation to financial management. *Proceedings of the American Council on Consumer Interests*. Denver, CO.
- Mueller, M. & Hira, T. (1984). Impact of select money management practices on household solvency status. *Proceedings of American Council on Consumer Interests*. Atlanta, GA.
- Mullis, R. J. & Schnittgrund, K. P. (1982). Budget behavior: Variance over the life cycle of low income families. *Journal of Consumer Studies and Home Economics*, 6, 113-120.
- Rosefsky, R. S. (1989). *Personal finance* (4th edition). NY: John Wiley & Sons.
- Sharp rise in credit card delinquency bodes ill for large banks. (1991, June 20). *Atlanta Constitution*, p. A-1.
- Syckle, C. V. (1951). Practices Followed by Consumers in Buying "Large-Expenditure" Items of Clothing, Furniture, and Equipment. Technical Bulletin 224, East Lansing, MI: Michigan State College Agricultural Experiment Station.
- Titus, P. M., Fanslow, A. M. & Hira, T. K. (1989). Net worth and financial satisfaction as a function of household money managers' competencies. *Home Economics Research Journal*, 17, 309-318.
- U.S. Bureau of the Census. (1992). *Statistical abstract of the United States: 1992* (112th edition). Washington, D.C.: U.S. Government Printing Office.
- Van Bortel, D. G. & Gross, I. H. (1954). A comparison of home management in two socio-economic groups. Technical Bulletin 240. East Lansing: Michigan State University
- Wells, H. L. (1959). Financial management practices of young families. *Journal of Home Economics*, 51, 439-444.
- Wilhelm, M. & Iams, D. (1986). Measures of economic well-being: Husband and wife consensus. *Proceedings of American Council on Consumer Interests*, St. Louis, MO.
- Williams, F. L. 1985. Family and personal resource management as affecting the quality of life. *Proceedings of Family Economics/Home Management Workshop of American Home Economics Association*, Philadelphia, PA.
- Winger, B. J. & Frasca, R. R. (1986). *Personal finance: An integrated planning approach*. Columbus, OH: Charles E. Merrill.