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Asset Building among Native Hawaiians

Lessons from the Kahikū IDA Program

David W. Rothwell
National University of Singapore

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Asset Building among Native Hawaiians: Lessons from the Kahikū IDA Program

Individual Development Accounts (IDAs) are matched savings accounts that encourage asset development for individuals and families with low incomes. Unique program data from an IDA program serving 758 Native Hawaiians were used to model the probability of participating in and graduating from the IDA program. Multivariate logistic regression models show that children in the household, lack of vehicle ownership, and savings goal (education) were associated with a reduced likelihood of program participation. Participants who owned homes and had relatively high savings balances prior to starting the program were more likely to graduate. Additionally, Maui participants were more than three times as likely as O'ahu participants to make a matched withdrawal. Recommendations for IDA policies and future research are discussed.

Key words: *IDAs, assets, Native Hawaiian, asset-based policy*

The 1998 Assets for Independence Act (AFIA) has channeled over $100 million to operate hundreds of Individual Development Account (IDA) programs nationwide (Report to Congress, 2006). IDA programs funded by AFIA provide participants with financial literacy training, individualized case management, and a matched savings mechanism. The purpose of IDAs is to encourage savings and asset development among people with low incomes.

Nationwide research has shown that the poor can and do save in IDAs (Schreiner & Sherraden, 2007). To date, however, there has been no research to examine participation trends among ethnic groups not represented in the national demonstration projects. This study addresses that gap by studying unique data on the IDA enrollment and graduation processes among a sample of Native Hawaiians. First, the characteristics of participation in the IDA program are carefully examined. Second, the study tests the extent to which pre-existing asset ownership is associated with success in the program. Findings indicate that the relatively advantaged are more likely to enroll in IDAs and also more likely to succeed. To reduce inequality, future IDA programs will need to carefully assess program recruitment and administration.

The paper begins with a review of the historical and contemporary economic and social challenges confronting Native Hawaiians to introduce the context for asset-building policy. The theoretical background and key findings from other IDA studies are then presented, followed by this study's

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methods and findings. A concluding section discusses the implications of the study for the future well-being of Native Hawaiians.

Native Hawaiian Poverty

Native Hawaiians are defined as persons with family lineage traceable to the Hawaiian Islands prior to Western contact in 1778. The subsequent occupation and colonization of Hawai'i, which began with the arrival of Western explorers, has had disproportionately negative affects for Native Hawaiians compared to non-Native Hawaiian populations. In fact, outside occupation and colonization are seen as the roots of many contemporary social problems facing Native Hawaiians (Mokuau & Matsuoka, 1995). Recent estimates suggest that over one in four Native Hawaiians live in poverty, a much higher rate than for other populations in Hawai'i. In 2005, the rate of Native Hawaiian families in Hawai'i living in poverty was 15.0%, more than double the state's average of 7.1 % (Naya, 2007). In addition, home ownership values of Hawai'i-born Native Hawaiians were only two-thirds as much as those of Hawai'i born, non-Native Hawaiians (Ong, 2006).

Low wages, disproportionately high poverty, and low levels of wealth accumulation are correlated with social development. In Hawai'i, the life expectancy of Native Hawaiians was five percent less than the state average of 78.85 years during the 1980s (Gardner, 1996). Furthermore, Native Hawaiians have disproportionately low levels of human capital. For example, the Native Hawaiian functional illiteracy rate (30%) was much higher than the state average of 19% (Tibbetts, 1999), and test scores revealed an approximate achievement gap of 10 percentile points in reading and math for Native Hawaiian students compared to state averages (Kana'iaupuni, Malone, & Ishibashi, 2005).

Asset policy in Hawai'i

The distribution of wealth in the Hawaiian Islands has been powerfully shaped by social policy. In the most often cited example of asset allocation, King Kamehameha III implemented *The Great Mahele* of 1848 that designated land for government and Crown Lands, while providing the opportunity for chiefs and native tenants to claim private ownership (Chinen, 1958). Although this was signed into law by the monarch, it was foreigners familiar with private land ownership and capitalism—sailors, traders, merchants and missionaries—who lobbied persuasively for the policy (Chinen, 1958; Kame'eleihiwa, 1992). By codifying private land ownership among a few privileged elite, the Great Mahele laid the foundation for asset inequality in the Hawaiian archipelago.

Another social policy, the Hawaiian Homes Commission Act (HHCA), passed in 1920, continued to shape the distribution of assets in Hawai'i. The HHCA allocated approximately 200,000 acres of land to provide 99-year homestead leases to Native Hawaiians for residential, agricultural, or pastoral purposes (Laws/Rules Hawaiian Homes Commission Act, 2007). The land was exclusively designated for persons with Native Hawaiian blood quantum levels equal or greater than 50%. The Department of Hawaiian Homelands (DHHL) now administers lands for homesteaders who pay $1 annually in rent for the lease of the land. One of the primary limitations is the policy's reach; for

example, the wait list to become eligible for DHHL land was recently over 19,000 (Pang, 2007). From an asset-based perspective, the homesteading strategy is limited because equity is accrued solely via the structure itself, and not the more lucrative combination of land and structure.

The introduction of private land ownership, in addition to numerous other policies not mentioned here, have contributed to a large and growing wealth gap in Hawai'i where Native Hawaiians find themselves particularly disadvantaged in their homeland. In the context of these challenges, researchers have called for increased study of interventions to improve the welfare of Native Hawaiians and other Pacific Islanders (Mokuau, Garlock-Tuiali'i, & Lee, 2008).

Poverty and Asset Ownership

Asset defined

In their most basic form, assets are *real* or *financial* stocks of wealth. Real assets (also called tangible assets) include land, buildings (including homes), and tools; financial assets (also called intangible assets) include money, bonds, equities, interpersonal skills, and social networks (Midgley, 2005). Although other intangibles may be considered assets, such as human capital (Becker, 1983) or social capital (Coleman, 1988; Putnam, 2000), this study focuses exclusively on real and financial assets.

Assets have numerous features that make them independently meaningful to individual and social well-being. First, assets, when compared to income, are more permanent. As a result, assets strengthen a household's ability to weather unexpected financial burdens. Second, assets are more likely than income to be transferred to future generations. Third, assets allow energy to be directed differently (Sherraden, 1991). If one has a foundation of assets they are likely to engage in different activities than if they do not have resources. This freedom is closely related to the capabilities approach described by Sen (1999). Fourth, assets facilitate the development of future orientation because they promote long-term planning (Shobe & Page-Adams, 2001). Last, asset ownership has the potential to generate more assets and income in the future (Midgley, 2005). Together these features coalesce to form what Sherraden (1991) called the virtuous social welfare cycle.

Individual Development Accounts

The Individual Development Account (IDA) was devised to promote asset building among the poor and conceived as a complement to income maintenance policies (e.g., Temporary Aid for Needy Families [TANF]). IDAs function as a matched savings account for the poor, much like Individual Retirement Accounts function as retirement savings for the middle and upper classes. In 1998, AFIA established funds for IDA programs nationwide. From FY 1999 to 2006, AFIA awarded $120.8 million to 368 programs that opened 43,934 IDAs (Report to Congress, 2006).

Although rules vary by program, IDA participants generally work with case managers to identify a savings goal (i.e., savings amount), attend financial literacy training, and save regularly towards the

purchase of an asset goal. The asset goals supported by AFIA are home ownership, post-secondary education tuition and fees, microenterprise costs, and home repair. Assuming compliance with program guidelines, the participant withdraws accrued funds from the IDA plus the IDA subsidy (match) upon achieving the saving goal. These funds are applied toward the purchase of the participant's asset goal. AFIA's match rates vary, usually between 2:1 and 4:1.

IDAs help low-income people build assets in two ways. First, IDAs provide institutional structures that encourage saving. Month by month, participants save into the IDA and build assets incrementally. Second, the match subsidy (a) attracts people to IDAs, (b) increases the return on saving, and (c) promotes transformative asset growth (Schreiner & Sherraden, 2007).

IDA research

The outcomes of IDA programs have been extensively researched, mostly in the American Dream Demonstration (ADD). As a nationwide demonstration, ADD included 14 program sites and over 2,300 participants. One of the primary findings to emerge from ADD is that the poor can and do save when given appropriate institutional structures. IDA participants saved an average of $1,609 over the course of the program (Schreiner & Sherraden, 2007). IDA participation was also positively related to home ownership (Grinstein-Weiss, et al., in press; Mills, Gale, et al., 2008). Compared to non-participants, IDA participants reported more confidence in the future, greater economic security, and greater control (Moore, et al., 2001), and had lower self-reported feelings of economic strain (Shobe & Boyd, 2005)

Individual and family characteristics and IDAs

IDA savers (defined as a participant who saved a total of $100 or more in the IDA) were more likely to be older, married, educated, and without substantial debt (Schreiner & Sherraden, 2007; Zhan, 2006). One study highlighted a number of factors associated with dropout from the IDA program, defined as having net savings less than $100 (Schreiner & Sherraden, 2005). Drop-out was less likely for those who were older, married, female, and with relatively higher levels of human capital. Importantly, asset holders were less likely to drop out (Schreiner & Sherraden, 2005). Income, employment status, household size, receipt of public assistance, and health insurance ownership were not associated with average monthly savings or drop-out (Schreiner & Sherraden, 2005, 2007).

Only one study analyzed matched withdrawals from the IDA. Findings revealed that females (compared to males), race (African American), and households with children were all less likely to make matched withdrawals (Mills, Gale, et al., 2008). Additionally, education and assets were related to savings performance for households with children (Grinstein-Weiss, Wagner, & Ssewamala, 2006). More knowledge about the matched withdrawal process is needed because only 31% of the 2,350 participants (21% home ownership, 21% post-secondary education, 26% business, 22% home repair) in the national demonstration study made a matched withdrawal (Schreiner & Sherraden, 2007).

Asset Ownership and IDAs

Asset ownership is hypothesized to positively influence additional asset development (Sherraden, 1991). In ADD, the unbanked (no savings or checking account) and persons with only a savings account were less likely to be savers compared to participants with both types of accounts (Schreiner & Sherraden, 2007). Home owners were much more likely to be savers compared to those who did not own homes in an experimental research site at Tulsa, an AFIA evaluation, and the ADD data (Mills, Gale, et al., 2008; Mills, Lam, DeMarco, Rodger, & Kaul, 2008; Schreiner & Sherraden, 2007). Bank account and home ownership were positively and significantly related to making a matched withdrawal, while car ownership was not (Mills, Gale, et al., 2008).

Rationale for study

There is a need to understand the characteristics associated with IDA program enrollment and IDA graduation in diverse populations. This study adds to the literature by examining three important aspects of IDAs. First, the study examines IDA participation and asks: what characteristics were associated with IDA program participation? The study's second focus is on the matched withdrawal process (also known as IDA graduation) with the research question: what individual and household characteristics were associated with making a matched withdrawal? Third, the study tests the asset-based theory of social welfare by asking: to what extent did pre-existing asset ownership affect the probability of making a matched withdrawal? Findings will inform the community of social service providers and policymakers interested in promoting greater access to wealth building mechanisms such as IDAs.

Method

The intervention

In the late 1990s, ALU LIKE, Inc. (ALI) formed an IDA partnership that was considered one of five indigenous IDA programs nationwide (Morris, 2007). From 1999 to 2004, the partnership was funded by AFIA, the Office of Hawaiian Affairs (OHA), Bank of America via OHA, DHHL, and Queen Liliʻuokalani's Children's Center. The ALI program was called *Kahikū,* and included a total of 550 IDAs. As a result, *Kahikū* was one of the largest IDA programs in the country, much larger than the AFIA average of 90 accounts (Report to Congress*,* 2006).

Participants were recruited to *Kahikū* from the islands of Hawaiʻi, Kauaʻi, Molokaʻi, Maui, and Oʻahu through public advertisement, word of mouth, and referral by area social service providers. To be eligible, participants were required to have household incomes of less than 200% of the Federal poverty guidelines, and owned assets with an estimated value worth less than $10,000 (excluding the value of the primary residence and one vehicle). *Kahikū* exclusively served persons with Native Hawaiian ancestry, evidenced by a birth certificate.

Upon enrollment, *Kahikū* participants identified an asset goal, declared a monthly savings target, and opened an account at one of two financial institutions. Each participant was provided generalized case management by ALI. To be eligible for a matched withdrawal, participants were required to attend general and asset-specific financial literacy classes. The match rates were 3:1 for home ownership, and 2:1 for education, business, and home repair. A match cap was set at $500 per 12 months, for an account term of 24 months. Therefore, participants could earn up to $1,000 in total match. For example, a participant saving towards home ownership could save up to $1,000 over two years and, upon meeting other program requirements, receive a 3:1 match of $3,000, for a total matched withdrawal of $4,000. Another participant could save $1,000 for education or business or home repair, and would receive a 2:1 match of $2,000, for a total matched withdrawal of $3,000.

A minimum monthly deposit of $10 was required to remain active in the program. Participants were allowed three missed deposits per calendar year without penalty. If a participant missed more than three monthly deposits, they were subject to termination from the program. Withdrawals from the account for unauthorized purposes required the case manager's consent and were not matched.

Participants

The sample included 758 participants. Three sub-groups in the sample are the primary focus in the study. The first subgroup, the comparison group, was comprised of people who applied to the program, but elected not to participate (n = 208), i.e., they did not open an IDA account. The second subgroup, the intervention group, was comprised of people who opened IDAs, but never made a matched withdrawal from the account (n = 366). The final group, IDA graduates, executed at least one matched withdrawal before the program ended (n = 184). The matched withdrawal rate (34%) was comparable to the national average of IDA graduation (Schreiner & Sherraden, 2007).

Data

The data included information that was reported by participants during application to *Kahikū*. Hard copy records were transformed into an electronic database. For this study a number of demographic variables were selected: gender (male as reference), age, married (non-married as reference), presence of children in the household (no children as reference), college degree holder (non-college degree as reference), full-time employment (less than full-time employment as reference), receipt of TANF (non-receipt of TANF as reference), the ratio of household income to family-size adjusted poverty guidelines which is known as the income-to-needs ratio, and total sum of consumer debt (self-reported vehicle loans and credit card balances). The savings goals were included with homeownership as the reference. Island of residence and nine asset variables were incorporated: net worth (total assets minus total liabilities), vehicle ownership free and clear, vehicle ownership with loan (no vehicle as reference), home ownership (non-home owner as reference), business ownership (non-ownership as reference), and stock ownership (non-ownership as reference). Savings and checking account balances were dummy-coded for high checking (balance of $1,000 or more) and

high savings (balance of $400 or more) and non-ownership of savings or checking (reference categories were low balance for checking and savings balances).

Data analysis

A subset of home repair savers were removed from the sample (n = 32; 4.2%) to focus the analysis on participants who saved for the most common nationwide savings goals of home ownership, postsecondary education, and microenterprise. Missing item-level data for explanatory variables was addressed using multiple imputation (MI) with SAS. The MI technique is the preferred method to handle missing item-level data and performs well in small samples (Graham & Schafer, 1999; Little & Rubin, 2002). A total of 74 combinations of missing values for 28 variables were imputed, and five new data sets were generated with the Markov Chain Monte Carlo method.

The first step in the analysis following MI involved producing descriptive statistics and tests of the bivariate relationships. Chi-square tests of significance and one-way analysis of variance tests were used to examine group membership for categorical and continuous variables, respectively. Group membership (i.e., comparison, intervention, or graduate) was the independent variable in the bivariate analyses.

Multinomial logistic regression was then used to model the probability of being in the intervention group relative to the comparison and graduate groups (using the log of the odds) as a function of independent predictors. Estimates of the multinomial model produce smaller standard errors compared to running each binary logistic equation separately (Agresti, 2007). A five-step iterative logistic regression model-building and evaluation process was followed (Hosmer & Lemeshow, 2000). Parameter estimates were generated through maximum likelihood estimation.

The final analysis examined the characteristics associated with being a graduate, which necessitated filtering out the comparison group (n = 206), leaving an adjusted sample of n = 520. A binary logistic regression was then used to model the probability of being an IDA graduate (using the log of the odds) as a function of independent predictors. Hierarchical regression was used to incrementally assess the influence of asset ownership variables on IDA graduation. A chi-square test was used to determine whether the addition of the asset variables significantly adds to prediction of IDA graduation beyond the individual and demographic variables already entered in the previous step.

Results

The descriptive analyses showed large discrepancies between measured characteristics and the three groups (see Table 1). The largest differences among the groups (as indicated by the test statistic) were for savings goal, high savings account balance, and home ownership. The percentage of education savers among the comparison group (42) was 16% higher than among intervention and graduate groups. For savings account balance, the rate of high savings in the graduate group (29%) was considerably more than that of the comparison or intervention groups (13% and 18%,

respectively). The percentage of home owners in the graduate group (18%) was over double that of the comparison and intervention groups (7% and 8%, respectively). There were no statistically significant differences by group for age, college degree, saving goal business, business ownership, and stock ownership. The group differences by island were not calculated because there were zero persons from Maui in the comparison group.

Table 1. Bivariate characteristics of comparison, intervention, and graduate groups

	C *n* = 206	I *n* = 346	G *n* = 174	
Variable	(%)	(%)	(%)	Test stat
Female	(71)	(71)	(67)	6.05*
Age at enrollment#	33.83 (10.11)	33.98 (10.84)	34.11 (11.82)	.16
Married	(37)	(37)	(43)	11.36***
Children in the household	(88)	(78)	(82)	41.75***
College	(16)	(18)	(19)	4.95
Full-time employment	(40)	(48)	(49)	21.56***
TANF receipt	(25)	(22)	(12)	50.46***
Income to needs#	1.19 (.69)	1.14 (.63)	1.28 (.65)	13.81***
Consumer debt †#	5570 (8121)	5207 (8532)	6255 (9715)	13.17***
Savings goal				
Home	(39)	(53)	(51)	54.32***
Education	(42)	(26)	(26)	86.83***
Business	(19)	(21)	(23)	3.92
Assets and liabilities				
Net worth† #	-1410 (15064)	2991 (26043)	9335 (48689)	18.86***
Vehicle free and clear	(36)	(47)	(44)	30.21***
Vehicle with loan	(27)	(27)	(35)	20.12***
Home	(7)	(8)	(18)	77.11***
Business	(13)	(13)	(15)	2.16
Stocks investments	(24)	(24)	(23)	1.01
Checking (≥ $1,000)	(7)	(7)	(14)	35.41***
Savings (≥ $ 400)	(13)	(18)	(29)	82.82***
No bank	(12)	(6)	(5)	46.41***
Hawai‘i	(1)	(27)	(26)	n/a
Kauai	(2)	(17)	(11)	
Maui	(0)	(9)	(19)	
Molokai	(< 1)	(4)	(7)	
O‘ahu	(96)	(43)	(37)	

Note. # Mean (SD).
† Raw values presented in table, LN values used in ANOVA tests.
*$p < .10$. **$p < .05$. ***$p < .01$.

What characteristics were associated with IDA program participation in a large IDA program serving Native Hawaiians?

Results from the multinomial logistic regression model are presented in Table 2. Clearly many of the bivariate differences faded when entered into the multivariate model. A number of characteristics were associated with being in the comparison group. First, persons with children in the household were relatively more likely to be in the comparison group (OR = 2.49) and not in the intervention or matched withdrawal groups ($\chi^2 = [1, N = 726] = 10.89, p < .01$). Similarly, those who intended to save for education were much more likely (OR = 2.19) to be in the comparison group ($\chi^2 = [1, N = 726] = 10.76, p < .01$). Vehicle ownership, regardless of whether the vehicle was owned free and clear ($\chi^2 = [1, N = 726] = 10.21, p < .01$) or with a loan ($\chi^2 = [1, N = 726] = 4.32, p < .05$), was negatively associated with being in the comparison group. Interestingly, the probability of being a member of the comparison group increased with the income-to-needs ratio.

Table 2. Multinomial logistic regression predicting IDA participation

	Comparison/Intervention		Graduate / Intervention	
Variable	*Estimate/SE*	*OR*	Estimate/SE	OR
Intercept	6.21(5.30)		-5.11(5.54)	
Female	-0.15(0.21)	0.86	-0.2(0.22)	0.82
Age at enrollment	0.01(0.01)	1.01	0(0.01)	1.00
Married	0.05(0.20)	1.05	0.12(0.21)	1.12
Children in the household	0.91(0.28)	2.49***	0.36(0.26)	1.43
College	-0.24(0.26)	0.79	-0.1(0.26)	0.91
Full-time employment	-0.33(0.21)	0.72	-0.13(0.22)	0.88
TANF receipt	0.06(0.24)	1.06	-0.62(0.29)	0.54**
Income to needs	0.33(0.16)	1.39**	0.16(0.16)	1.18
Consumer debt†	0.09(0.07)	1.09	0.1(0.08)	1.10
Savings goal				
(Home as ref.)				
Education	0.78(0.24)	2.19***	0.04(0.26)	1.04
Business	0.44(0.27)	1.55	0.03(0.27)	1.03
Assets and liabilities				
Net worth†	-1.66(1.07)	0.19	0.77(1.12)	2.16
Vehicle free and clear	-0.77(0.24)	0.46***	-0.13(0.27)	0.88
Vehicle with loan	-0.66(0.32)	0.52**	-0.01(0.34)	0.99
Home	-0.30(0.41)	0.74	0.6(0.37)	1.82
Business	-0.03(0.29)	0.98	-0.06(0.29)	0.94
Stocks investments	0.15(0.24)	1.16	-0.4(0.25)	0.67
Checking (≥ $1,000)	0.13(0.36)	1.14	0.42(0.33)	1.51
Savings (≥ $ 400)	-0.09(0.27)	0.91	0.69(0.24)	1.99***
Unbanked	0.56(0.34)	1.75	0.23(0.44)	1.26

Note. † = natural log.
*$p < .10$. **$p < .05$. ***$p < .01$.

Fewer relationships accounted for membership in the graduate or intervention group. First, persons who received TANF at enrollment appeared relatively less likely to be in the graduate group (OR = .54) compared to the intervention and comparison groups ($\chi^2 = [1, N = 726] = 4.58, p < .05$). Furthermore, persons who had more than $400 in savings when they applied to the program were nearly twice as likely (OR = 1.99) to be in the graduate group compared to the intervention group ($\chi^2 = [1, N = 726] = 8.58, p < .01$).

What characteristics were associated with making a matched withdrawal from this large IDA program serving Native Hawaiians?

The first step in the hierarchical logistical regression included the same 11 covariates used in the previous models (see Table 3). Island variables were included in this analysis (O'ahu as reference island). Overall, the model was significant ($\chi^2 = [15, N = 520] = 34.82, p < .01$). Three economic characteristics were associated with IDA graduation. TANF receipt was negatively associated ($\chi^2 = [1, N = 520] = 1.79, p < .10$) while income-to-needs ($\chi^2 = [1, N = 520] = 1.65, p < .10$) and consumer debt ($\chi^2 = [1, N = 520] = 2.01, p \leq .05$) were positively associated with IDA graduation when controlling for other characteristics. The results also show living on Maui and being an IDA participant was associated with a significantly higher probability of making a matched withdrawal ($\chi^2 = [1, N = 520] = 3.41, p < .01$).

Table 3. Hierarchical logistic regression results predicting IDA graduation

Variable	*Estimate/SE*	*Estimate/SE*	*OR*
Intercept	-1.56(0.52)***	-3.92(4.75)	
Female	-0.31(0.22)	-0.33(0.23)	0.72
Age at enrollment	0(0.01)	0.00(0.01)	1.00
Married	0.13(0.22)	0.12(0.22)	1.13
Children in the household	0.33(0.29)	0.36(0.30)	1.43
College	-0.02(0.25)	0.00(0.26)	1.00
Full-time employment	-0.31(0.22)	-0.28(0.23)	0.75
TANF receipt	-0.52(0.29)*	-0.43(0.30)	0.65
Income to needs	0.28(0.17)*	0.16(0.18)	1.18
Consumer debt†	0.12(0.06)*	0.09(0.08)	1.10
Savings goal			
(Home as ref.)			
Education	0.43(0.26)	0.30(0.28)	1.35
Business	0.39(0.27)	0.23(0.29)	1.26
Island			
(O'ahu as ref.)			
Hawai'i	0.37(0.25)	0.34(0.27)	1.40
Kauai	-0.21(0.32)	-0.27(0.33)	0.76
Maui	1.09(0.32)***	1.11(0.33)***	3.02
Molokai	0.65(0.45)	0.84(0.49)*	2.32
Assets and liabilities			
Net worth†		0.50(0.95)	1.65
Vehicle free and clear		-0.12(0.28)	0.89
Vehicle with loan		0.06(0.34)	1.06
Home		0.68(0.39)*	1.98
Business		-0.19(0.32)	0.83
Stocks investments		-0.18(0.27)	0.84
Checking (≥ $1,000)		0.51(0.36)	1.67
Savings (≥ $ 400)		0.64(0.26)**	1.89
Unbanked		0.22(0.45)	1.24
Model chi-square	34.82**	52.96***	
Increase in chi-square		18.14***	
Max-rescaled r-square	.09	.13	

Note. † = natural log.
*$p < .10$. **$p < .05$. ***$p < .01$.

To what extent did pre-existing asset ownership affect the probability of making a matched withdrawal in a large IDA program serving Native Hawaiians?

The nine asset variables were then added in hierarchical fashion. The final model was significant ($\chi^2 = [24, N = 520] = 52.96, p < .01$). Interestingly, the relationship between TANF, income, and consumer debt faded when the asset variables were entered into the model. Maui participants in this final model maintained a significantly higher probability of being an IDA graduate ($\chi^2 = [1, N =$

520] = 3.36, $p < .01$). Molokai residents in this model were also more likely to be IDA graduates (χ^2 = [1, N = 520] = 1.71, $p < .10$). Two types of asset holding were associated with IDA graduation. Home owners were nearly twice as likely (OR = 1.98) as non-home owners to graduate (χ^2 = [1, N = 520] = 1.74, $p < .10$); the odds of being an IDA graduate for high savers were 1.89 greater than for participants with low savings (χ^2 = [1, N = 520] = 2.46, $p < .01$). Importantly, adding the asset variables significantly increased the chi-square value of the model (χ^2 = [9, N = 520] = 18.14, $p < .01$).

Discussion

Asset-building policies, with IDAs as the hallmark intervention for low-income people, have demonstrated effectiveness in nationwide studies. This study presents analysis of a large IDA program that operated in Hawai'i from 1999 to 2004. Findings presented here contribute to the field by showing how individual and family characteristics, island of residence, and asset ownership affect the likelihood of participating in an IDA program (in comparison to those who enrolled but chose not to participate) and how these same factors affect the likelihood of making a matched withdrawal (i.e., graduation). Findings can be used to promote greater success in IDAs with the purpose of reducing the wealth gap while ultimately enhancing Native Hawaiian well-being.

This study shows considerable heterogeneity among the sample of low-income Native Hawaiians who applied to the *Kahikū* program. One of the key findings is that the relatively more disadvantaged an applicant, the more likely they were to choose not to participate. The presence of children in the household and lacking a vehicle were barriers to enrollment. Without vehicles, participants may have felt unable to fully participate in financial education classes and case management. This concern may have been especially pronounced among some of Hawai'i's rural and geographically isolated communities. Surprisingly, income was positively related to comparison group membership. Perhaps applicants with higher incomes felt they did not need the help of the IDA program.

The finding that having children in the family is positively associated with non-enrollment in the IDA program may indicate a clash between the goals of IDAs and the cultural values of Native Hawaiian families. Children play a critical role in creating a sense of 'ohana (family) for Native Hawaiians. Strong 'ohana values, social connectedness, and feelings of relatedness are hallmark characteristics of Native Hawaiian norms and culture (DeBaryshe, Yuen, Nakamura, & Stern, 2006; Ewalt & Mokuau, 1995; Kana'iaupuni, 2004). Furthermore, the 2005 average family size of 3.87 for Native Hawaiian families is larger than the statewide average of 3.40 for non-Native Hawaiians (Naya, 2007). The negative relationship between children in the household and IDA enrollment supports previous research that found a negative relationship between matched withdrawals and presence of children (Mills, Gale, et al., 2008) and that childless families were wealthier than families with children (Grinstein-Weiss et al., 2006). The presence of children in the family may place financial burdens on families that lead to second thoughts about participation in the IDA program.

There is a need to better understand why families with children were less likely to enroll in the IDA program.

A third key finding in this study is that asset holding at the time of enrollment matters for IDA graduation. Adding the nine asset variables together increased the model's ability to predict IDA graduation. This finding is supported by theory that suggests that asset holding begets future asset development (Sherraden, 1991), and by research showing that ex-ante asset ownership increased chances of IDA graduation (Mills, Gale, et al., 2008) and reduced chances of dropping out (Schreiner & Sherraden, 2005). Home ownership and high savings balances were both related to an increased probability of graduating from the IDA. Both variables (home ownership and high savings) may be proxy indicators of other characteristics important to succeeding in IDA programs. For example, homeowners may have more experience saving and planning for future financial goals.

From 1999 to 2004, something positive happened at the Maui IDA program site. Maui participants were much more likely to make a matched withdrawal compared to O'ahu participants (OR = 3.24). There are at least two possible explanations for this strong relationship. The first reason is contextual; the high supply of DHHL homelands on Maui made it possible for many participants to become home owners. The second reason is institutional. For example, program staff revealed that the Maui *Kahikū* site focused almost exclusively on home ownership, and participants were recruited specifically to save for home ownership. As a result, 92% of Maui participants saved for homes, 6% for business, and zero for post-secondary education. Therefore, it is the Maui-island effect that confounds the strong relationship between education savings goal and group membership reported in Table 2. The flexibility allowed between IDA programs makes it difficult to quantitatively evaluate program outcomes, a noted challenge in IDA research (Schreiner & Sherraden, 2007).

Two important variables considered in most studies of welfare—household income and employment status—had no relationship to IDA participation outcomes in this sample. That household income and employment status fail to explain asset accumulation in IDAs here and elsewhere (Grinstein-Weiss et al., 2007; Mills, Gale, et al., 2008; Schreiner & Sherraden, 2006; Sherraden et al., 2003) builds a convincing argument that other factors matter for asset accumulation in low-income households. Other research emphasizes the importance of institutional features in explaining savings and dropout in IDAs (Grinstein-Weiss, Curley, & Charles, 2007; Schreiner & Sherraden, 2005). Surprisingly, household variables and education had no statistically meaningful relationship with IDA participation, although such effects have been observed in other studies.

Limitations

Findings should be interpreted carefully because of several study limitations. First, the sample was not randomly selected from the population of low-income Native Hawaiians. Persons in this sample had unobserved characteristics (e.g., motivation, interest in saving, and financial knowledge) that differentiate them from the general population of low-income Native Hawaiians. The second limitation is the data. Although the overall model significantly differed from zero, it failed to explain

at least 85% of the variance in group membership and IDA graduation. In other words, the probability of making a matched withdrawal from the IDA is only modestly accounted for by these individual, family, island, and asset ownership variables.

Implications for Policy

This study has specific implications for policymakers targeting Native Hawaiian well-being in Hawai'i. First, the research demonstrates that the *Kahikū* program produced positive outcomes similar to other first-generation IDA programs nationwide. Importantly, where national research belied the assumption that the poor cannot accumulate assets, this study belies assumptions that poor Native Hawaiians cannot accumulate assets. The program may be considered a model IDA program in Hawai'i, with considerable institutional knowledge that can inform current and future IDA programs. Several organizations are currently operating IDAs at varying scales in the state: ALI, Helping Hands, Hawai'i Community Assets, Hawaii First Credit Union, Mala Ai 'Opio (MA'O), Kula No Na Po'e Hawai'i, Kahalu'u Ecumenical Youth (KEY) Project, Maku'u Farmers Association & Miloli'i Community, Parents and Children Together (PACT), and the Pacific Gateway Center. Furthermore, based on the *Kahikū* evidence, there is great opportunity for OHA and the Department of Hawaiian Homelands to incorporate asset-based mechanisms into their ongoing efforts. Assets should be considered during program eligibility and savings mechanisms can be encouraged or built into other programs. (see Beverly, et al., 2008 for examples of recommended institutional policies).

Findings also inform statewide asset-based policies that are continually under consideration. IDA legislation was introduced to the Hawai'i State Legislature during each session from 2005 to 2009, but has not passed. It is hoped that the evidence presented above (i.e., that low-income persons, Native Hawaiians included, can save and develop assets when provided institutional opportunities), will be considered in future deliberations on the merits of state-sponsored IDAs. One product of the 2008 legislative session was the passage of SCR92 Hawai'i Statewide Task Force on Public Financial Education & Asset Building. The task force is currently considering how to implement financial education, propose statewide universal savings accounts for newborns, and revise existing asset limits for welfare recipients. Hawai'i is one of the first states to consider universal savings accounts for newborns, a policy that is closely aligned with Sherraden's (1991) original proposal for universal and lifelong savings accounts for all. One coalition, called *Ho'owaiwai* and organized by the Hawai'i Alliance for Community Based Economic Development (HACBED), is leading the advocacy effort to expand asset policy in the state by regularly convening community leaders, policymakers, and advocates. In addition to their advocacy and organizing, the organization has also produced a number of policy briefs and research reports examining asset policy possibilities in Hawai'i (see http://www.hacbed.org/advocacy/2009resources.html).

The finding that the relatively better off are self-selecting into IDA programs means that, as an intervention, IDAs may not be reducing poverty and addressing asset inequality as much as they

could. This implies that there is a need to identify persons at risk for selecting out of the program. A scorecard based on characteristics of savers in the national demonstration program was developed to track participants at the time of entry (Schreiner & Sherraden, 2006). A similar scorecard related to the likelihood of making a matched withdrawal could be useful to identify participants at risk for not taking advantage of the subsidy.

Implications for Future Research

While this research study is considered an important contribution to the understanding of IDAs generally, and among Native Hawaiians specifically, there are many questions that remain unanswered. Understanding the long-term impacts of IDAs has been cited as a key gap in the knowledge base (Sherraden, 2008). One longitudinal survey of *Kahikū* sponsored by ALI, the Hawai'i Community Foundation, American Savings Bank, and Bank of Hawai'i was conducted in 2008 to evaluate the long-term impacts of IDA participation. Early analysis revealed positive effects of IDAs: at follow-up, IDA gradates were more than twice as likely as non-graduates to own homes, and IDA graduation was positively related to vehicle ownership and vehicle value (Rothwell, 2008). Ongoing research using this dataset is underway to understand how other variables—stressful family events, financial practices, and sense of mastery—relate to IDA participation and well-being.

Of critical importance for future research is the need to understand processes that went unobserved in this study. For example, unobserved institutional variation in IDA program structure is critical to our understanding of outcomes. There is a growing consensus about which institutional features will maximize saving in IDAs (see Schreiner & Sherraden, 2007 for a full account). Future research among Native Hawaiians and other less visible minority groups should explore the influence of institutional features such as hours of financial education (information) and higher match rates (incentives). Other unobserved characteristics may also explain IDA performance. For example, the knowledge base would be enhanced with better information about how psychological, cultural, and environmental factors affect transformative asset building for low-income people.

The issue of cultural fit is frequently raised in discussions about asset accumulation among Native peoples. One response has been offered by Danner (2004), who explained what purposes economic development could serve for Native Hawaiians:

> To spend it on and to invest it in native goals, to achieve language revitalization, to attract our native youths and immerse them in native cultural values that will serve them to be economically self-sufficient, and to set a foundation for Native Hawaiian well-being (p. 1).

Various research methodologies would greatly inform the collective understanding and debate about why assets are important for Native people. The most important question is to determine how policies can be designed to optimize asset accumulation among Native people. Ongoing work to understand cultural fit is underway (Finsel, 2008).

Conclusion

There are large asset and income disparities between Native Hawaiians and others in Hawai'i. Low-income people on the continental US have demonstrated they can save and accumulate assets in IDA programs. This first study of IDAs among Native Hawaiians demonstrates that low-income Native Hawaiians can also save in IDAs, as graduation rates in the largest Hawai'i program were comparable to nationwide rates. Furthermore, asset ownership increases the chances of joining an IDA program and succeeding once enrolled. However, families with children and those without vehicles are less likely to enroll in the program. We suspect that institutional features of the program also matter greatly, although they were not tested in this study. The findings substantiate the need to further investigate how IDA participation and asset holding affect Native Hawaiian well-being.

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