

# **Factors Contributing to College Retention in the Native Hawaiian Population**

## **CP-TASK Research Team**

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Full paper available at [www.ksbe.edu/services/pase/hpw.html](http://www.ksbe.edu/services/pase/hpw.html) and  
[www.usc.edu/dept/education/truccs/kss/](http://www.usc.edu/dept/education/truccs/kss/)

# Introduction

- Over 400,000 Native Hawaiians living in the United States (Census, 2002).
  - among the least studied and most misunderstood of all groups (Makuakane-Drechsel & Hagedorn, 2000).
  - National proportion of Native Hawaiians that persist to college graduation is a mystery statistic not currently posted anywhere.
  - University of Hawaii system.
    - Native Hawaiians-- 13.8%
    - Earned a college degree 6 years after matriculation:
      - 41.3% Native Hawaiians
      - 73% Chinese
      - 64.2% Japanese students (Hawaii, 1997).

# Native Hawaiians and Other Indigenous Groups

- Indigenous people share similar struggles to maintain their respective cultures
  - Less likely to attend college
  - Low levels of college preparation (Pavel, 1999).
- Graduation and retention rates lower than the general student population
- AAPI (White House Initiative, 2003).
  - Higher rates of poverty,
  - Lower levels of health insurance,
  - More likely to face cultural and linguistic barriers to health and social services,
  - Higher rate of infant mortality

# Background

- Completion, Persistence, Transfer, and Success of Kamehameha Students
  - CP-TASKS
    - Contract with the University of Southern California (December 2001)
    - Classes of 1993, 1994, 1995, 2001, 2002, 2003
  - Goals
    - Explore relationships between attendance at Kamehameha, college financial aid and subsequent success in college attendance, retention, degree acquisition and occupational success.

# Sample

- 376 Kamehameha High School graduates from the graduating classes of 1993, 1994, and 1995 who attended college
  - Approximately two thirds completed a bachelor's degree,.
  - Weighting algorithm to based on gender, year of graduation, and boarding status during the 7th to 12th grade

# Sample Sizes by Year of Graduation, Gender, and Boarding Status

	<b>Kamehameha Students N and % (Unweighted)</b>
<b>1993</b>	120 (31.9%)
<b>1994</b>	140 (37.2%)
<b>1995</b>	116 (30.9%)
<b>Male</b>	116 (30.9%)
<b>Female</b>	259 (69.1%)
<b>Non-Boarding (Commuter) Student</b>	329 (87.5%)
<b>Boarding Student</b>	47 (12.5%)

# Questionnaire

- Consists of 54 multi-part items
  - demographics,
  - high school experiences,
  - college questions,
  - life satisfaction.

# Analysis

- Creating and testing scales for reliability,
- Correlational analyses,
- Logistic regression, and
- One-way analysis of variance (ANOVA).

# Variables and Scales

- Dependent variable - College completion
- Independent variables
  - Receipt of financial aid from Kamehameha School,
  - High school GPA,
  - Parent's education level,
  - Life satisfaction, Diener's Satisfaction with life scale (Diener, Emmons, Larsen, Griffin, 1985)
  - Family/job responsibility,
  - Hawaiian blood quantum,
  - self-efficacy, Factors Influencing Pursuit of Higher Education (FIPHE) Questionnaire (Harris, 1998; Harris, 2001; Harris & Halpin, 2002)
  - College location (Mainland or Hawaii)

# Psychometric Properties of Scales

Variables and Composite items	Alpha	Mean (S.D.)	N	Min	Max.
<b>Life Satisfaction</b> (Independent Variable): - In most ways my life is close to my ideal. - The conditions of my life are excellent. - I am satisfied with life. - So far, I have gotten the more important things I want in life. - If I could live my life over, I would change almost nothing.	.91	4.977 (7.00)	1588	5.0	35.0
<b>Self-Efficacy</b> (Independent Variable): - I chose my college major because I was good at it - I chose my college major because I found the work challenging - I believed I would be successful at my college major - I considered myself a good college student	.72	2.9393 (2.21)	1588	5.0	16.0
<b>Family/Job Responsibility</b> (Independent Variable): - Job related responsibilities - Family responsibilities (e.g. child care, parent care)	.50	1.7261 (1.48)	1588	2.0	8.0

# Single Item Measures

Single Item Variables	Variable Description	N	Mean (S.D.)	Min	Max
<b>College Completion</b>	(dichotomous) indicating whether the respondent received Bachelor's degree (1) or not (0)	1588	.66 (.474)	0 (No)	1 (Yes)
<b>Parent Education Level</b>	Composite score of mother's and father's education level	1495	6.90 (2.17)	2 Middle School	11 (Graduate degree)
<b>High School GPA (Independent)</b>	Self reported high School grades	1586	6.17 (1.69)	2 (C-)	9 (A or A+)
<b>Financial Aid from Kamehameha</b>	Number of years received college financial aid from Kamehameha Schools	1588	2.38 (1.80)	0	5
<b>Hawaiian Blood Quantum</b>	Quantum Percentage of Native Hawaiian Blood	1408	.31 (.20)	0	1

# Results

- Logistic regression model indicated a relatively high level of goodness of fit.
  - Cox and Snell test 28% of the variance explained,
  - Nagelkerke test estimated 40%
  - Correctly predicted college completion in 81% of the sample.
- Financial aid from Kamehameha was the strongest positive predictor of college completion
- High school GPA, parent education level, self-efficacy, and life satisfaction also had positive impacts
- Family/job responsibility was negatively related with college completion.
- Hawaiian blood quantum not significant.

# Results of Logistic Regression

Variable	Coefficient	t-stat
Constant	-5.59	.000
Financial Aid from Kamehameha	** .462	.000
Parent Education Level	** .171	.000
High School GPA	** .361	.000
Self-Efficacy	** .147	.000
Life Satisfaction	** .044	.000
Hawaiian Blood Quantum	.308	.407
Family/Job Responsibility	** -.227	.000
Model Chi-Square [df]	429.97	
% Correct Predictions	81 %	
Cox & Snell R Square	0.28	
Nagelkerke R Square	0.40	

Note: \*Indicates that the coefficient is statistically significant at, at least, the .05 level.

\*\* Indicates that the coefficient is statistically significant at, at least, the .01 level.

# College Attendance (Mainland vs Hawaii)

- Students who attended mainland four- year colleges were much more likely to complete their degrees than those who attended any of the other types of colleges.
- Earned bachelor's degree:
  - 78% four-year colleges on the mainland
  - 70% four-year colleges in Hawaii,
  - 47% community college on the mainland
  - 28% community college in Hawaii

# Conclusions

- Financial aid provided by the Kamehameha Schools significantly increases the likelihood that students will complete college.
- Students with high grades tend to finish college.
  - College success is strongly related to academic ability.
- These analyses took place a minimum of seven years after high school graduation.
  - 58.5% have earned at least a bachelor's degree.
  - Higher than national norms
    - May increase with time
- students who attended four-year colleges on the mainland were much more likely to complete.
  - Students who go to the mainland are generally those with stronger academic records.
  - Proxy for higher academic success and increased opportunity to attend a larger group of colleges.
  - Differences may be related to family responsibilities.
    - Those students who attended four-year colleges on the mainland reported the lowest levels of family responsibility of all other groups

# Effect of Community Colleges

- Appears highly detrimental
- Students often go to community colleges for reasons that will make it more difficult for them to complete their degrees.
  - Lower academic grades
  - Need to work to support family
- Significance of Kamehameha's Financial Aid
  - Provides choice (mainland).
- many students will benefit from college attendance regardless if they complete the degree process.
  - This study cannot measure the benefits of financial aid, only its impact on college completion.
- This study of Kamehameha graduates found that the students continued to derive benefit from the financial aid provided by the school after graduation.