

# ANALYSIS OF ATTENDANCE DURATION -- A CASE STUDY OF UNIVERSITY OF TAIPEI

Miao-Ying Chen, Chi-Yi Chou, Yuan-Fang Ou, Huei-Yuan Chen, Li-Yun Chiang, Chu-Pu Chien

*The Office of Institutional Research. University of Taipei. Taipei City, Taiwan*

## INTRODUCTION

We analyze the factors of dropouts by the data of the student system, we hope that will have to achieve preventive effects through pre-analysis. This study is to use a survival analysis method to discuss attendance duration and explore factors that affect attendance duration. The question in this paper is the analysis of the attendance duration of the student at the University of Taipei by the student's background variables.

## DATA ANALYSIS FRAMEWORK

We analysis 182 dropouts. The background variables in this study are including student gender, graduation high school type, residential area, school loan, accommodation situation, study achievement, admission route, early alert record, flunk out record, education course. The attendance duration is calculated by the days of students stay in the school before they leave school and is based on the number of years.

The Kaplan-Meier curve and Log-Rank Test were used to explore the effect of background variables on attendance duration.

## EMPIRICAL DATA ANALYSIS

### A. Factors for the Students of Drop Out of School

#### Code of Variables and Factors for the Dropout Students

Variable	Code	%
college	0=college of inesiology	16.15
	1=college of Humanities and Arts	7.32
	2=college of Education	8.06
	3=college of Science	21.62
school loan	0=no	11.94
	1=yes	20.61
type of high school	0=public high school	12.59
	1=private high school	15.74
	2= public higher vocational	12.90
	3= private higher vocational	30.51
indigenous peoples	0=no	12.34
	1=yes	24.36

### B. Analysis of Attendance Duration

#### Attendance Duration

Attendance Duration	frequency	%	Variable	$\chi^2$	df	p-value
0-1	86	47.3	college	13.340	3	0.004
1-2	43	23.6	school loan	11.071	1	0.001
2-3	32	17.6	early alert	54.379	1	0.000
3-4	19	10.4	half of credits failed	15.560	1	0.000
>4	2	1.1				
Total	182	100				

#### By K-M curve and Log-Rank Test

(1) In Figure IV-1 , the attendance duration of students has significant differences between different colleges. We find that the attendance duration of the students of the college of kinesiology is longer than the other colleges. It can be seen that the college has a significant impact on the student's attendance duration.

(2) In Figure IV-2 , the attendance duration of students is a significant difference in whether the student has a school

loan. We find that the attendance duration of the students who have school loan is longer than the others. It can be seen that the school loan has a significant impact on the student's attendance duration.

(3) In Figure IV-3 , the attendance duration of students is significantly different from the factors of "early alert". We find that the attendance duration of the students who got early alert is longer than the others. Displaying a student's early system can increase the amount of time a student stays in school.

(4) In Figure IV-4 , the attendance duration of students is significantly different by the factors of "half of the credits failed". Warnings from student grade can slow down their dropouts.

Figure IV-1

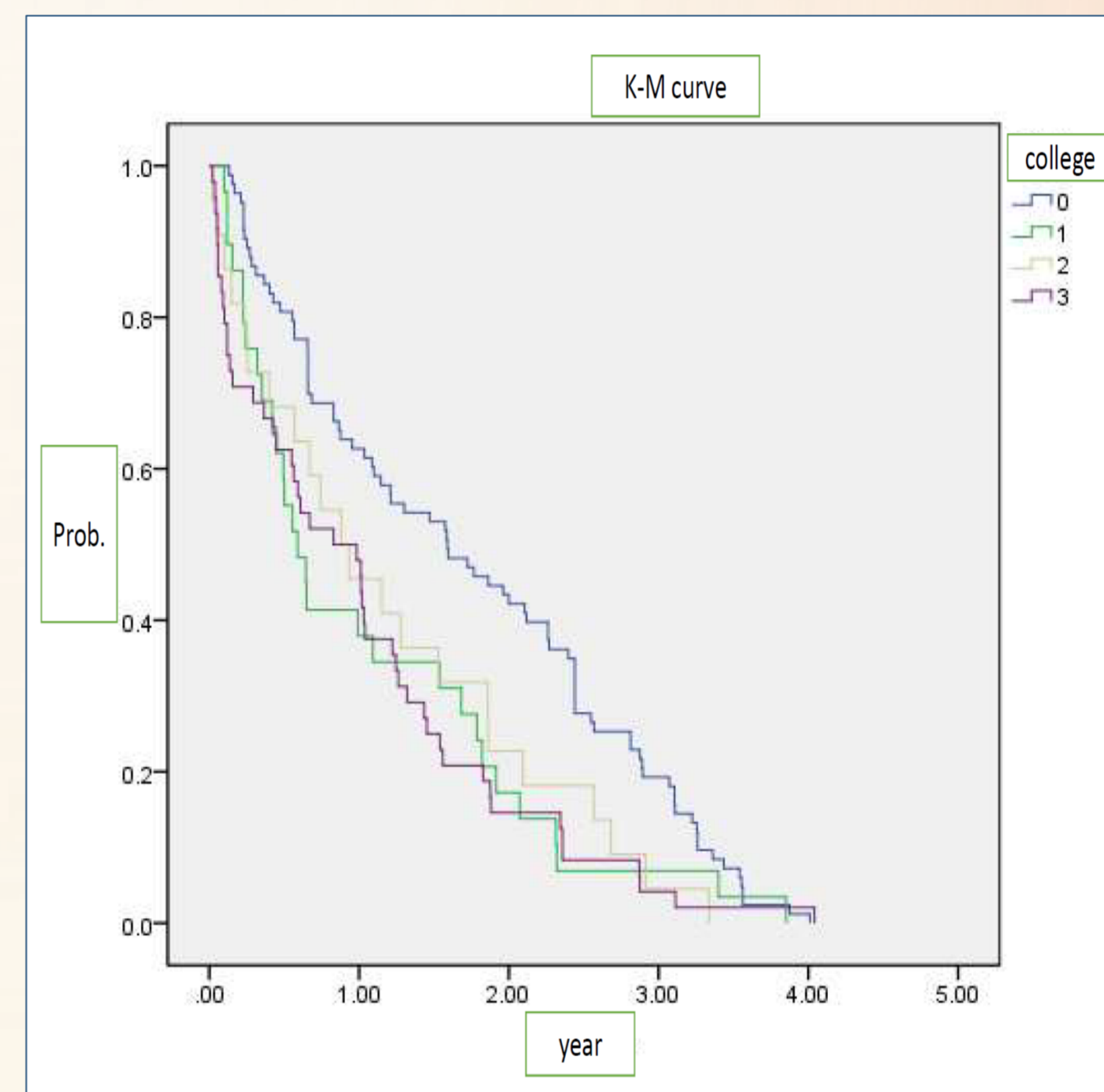


Figure IV-2

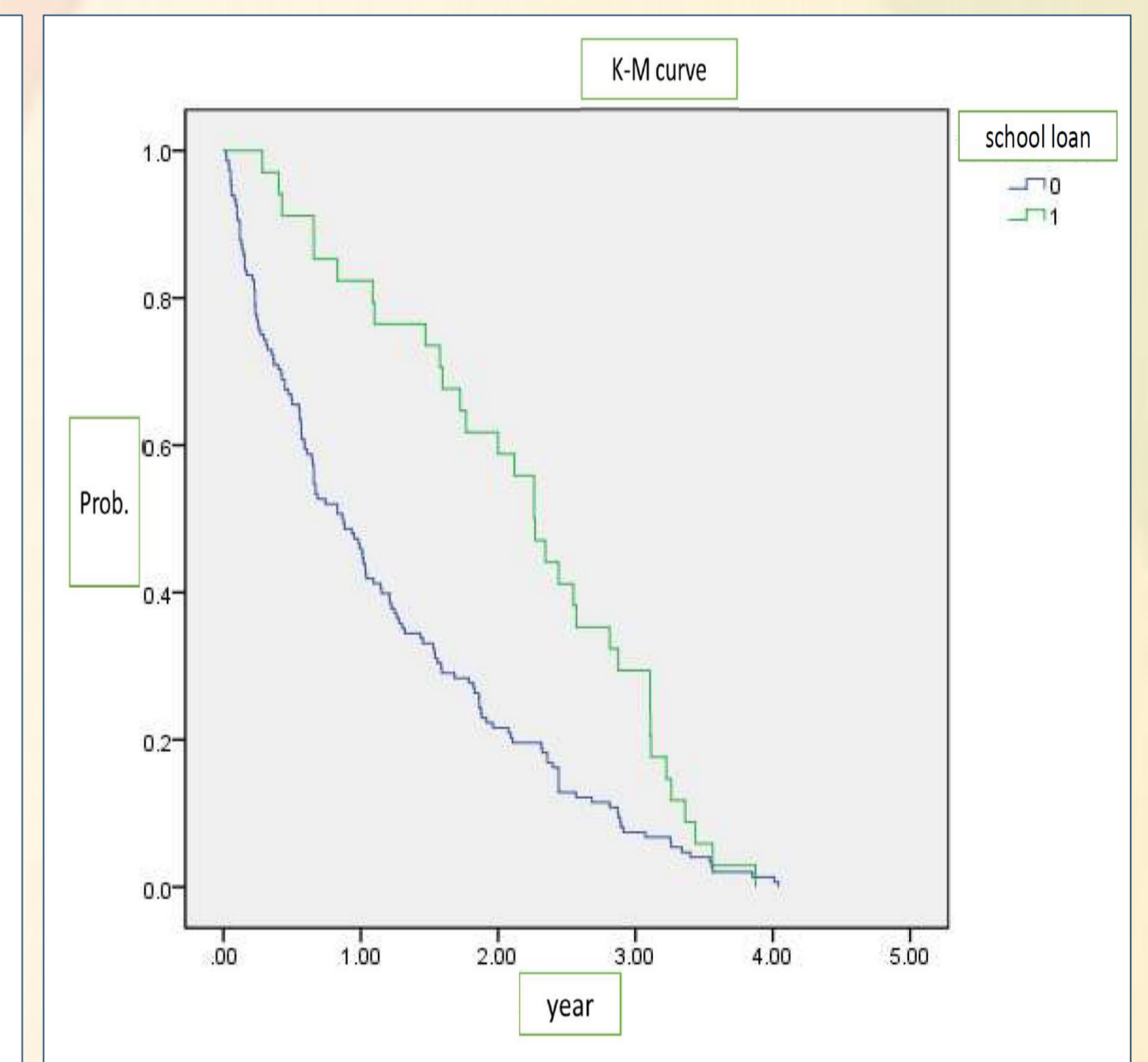


Figure IV-3

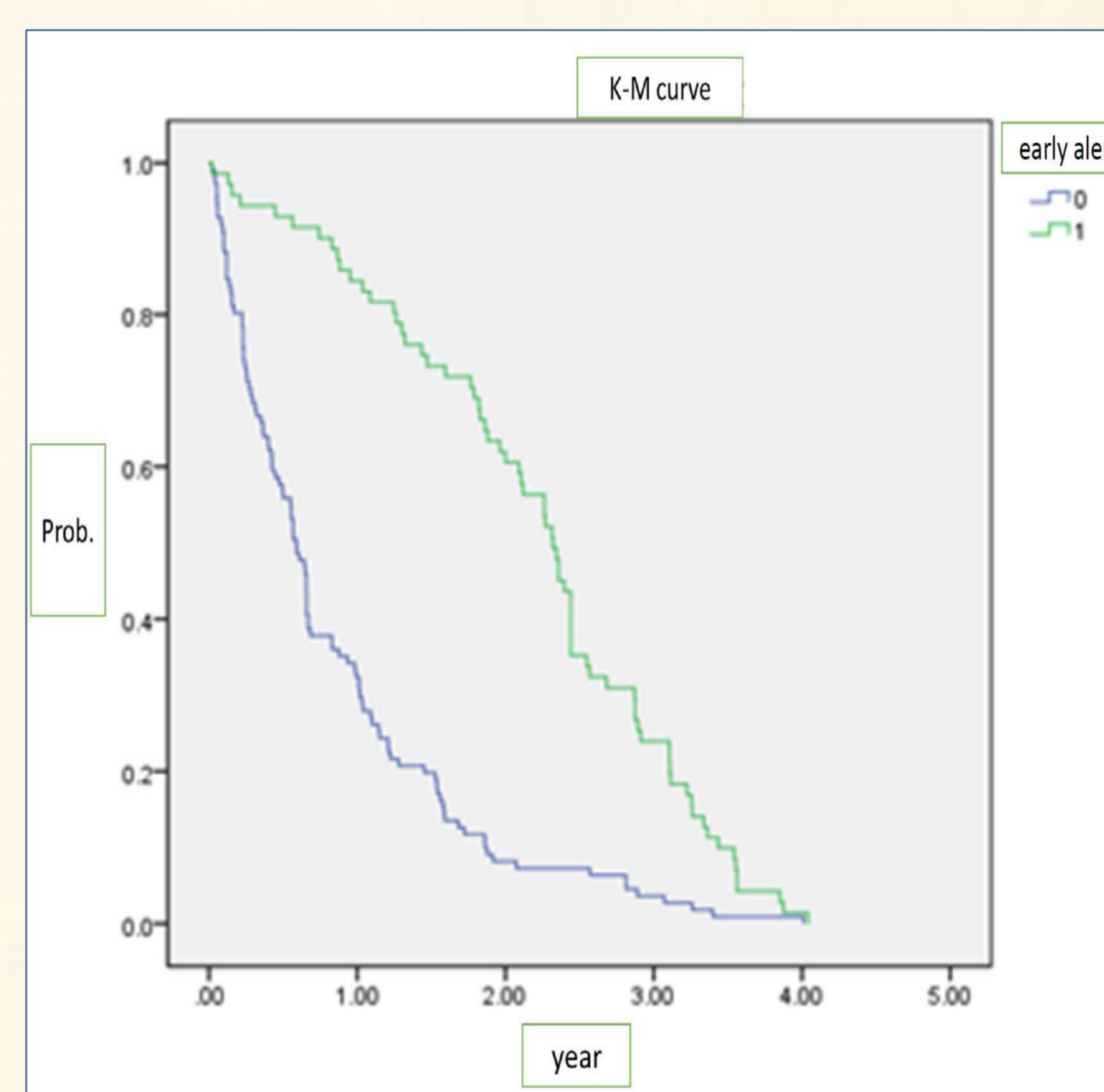
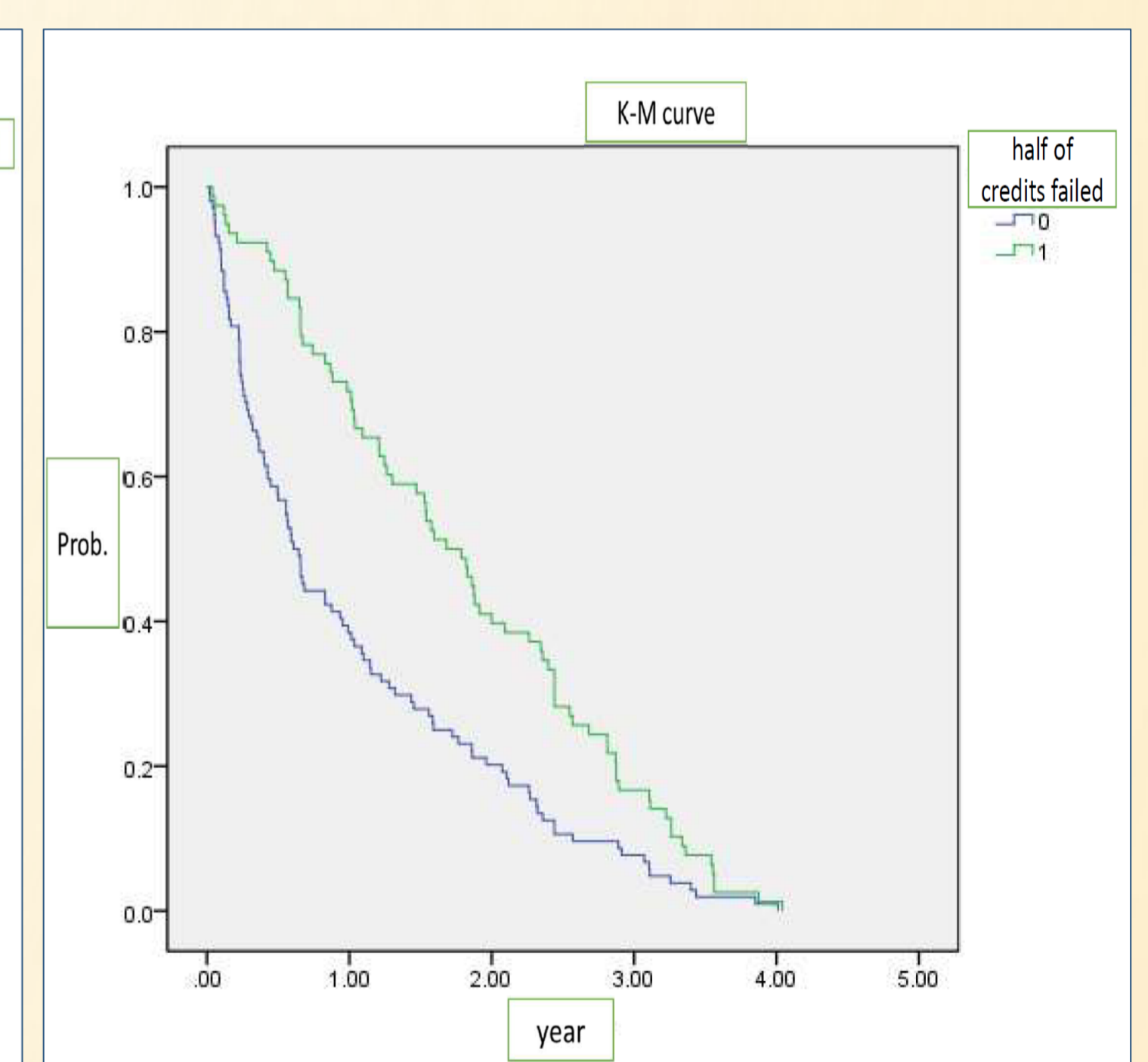


Figure IV-4



## References

- [1] A. W. Astin, "Personal and environmental factors associated with college dropouts among high aptitude students," *Journal of Educational Psychology*, Vol. 55(4), 1964 , pp. 219-227.
- [2] J. P. Bean, and B. S. Metzner, "A conceptual model of nontraditional undergraduate student attrition," *Review of Educational Research*, Vol. 55, 1985, pp.485-540.
- [3] K. Leppel, "The impact of major on college persistence among freshmen," *Higher Education*, Vol. 41(3), 2001, pp.327-342
- [4] K. Leppel, "Similarities and differences in the college persistence of men and women," *The Review of Higher Education*, Vol. 25(4), 2002, pp.433-450.
- [5] V. Tinto, *Leaving College: Rethinking the Causes and Cures of Student Attrition* (2nd ed.). Chicago: University of Chicago Press, 1993.
- [6] Yi Wei Xiao, "The study for aboriginal college students who drop out, get back to school, and how they get used to school life," National Taiwan Normal University, 2005.
- [7] Chia Hao Chen, "The Risk Management Study of the Applied Survival Techniques to the Customers Credit of Car Loan," National Cheng Kung University, 2003.
- [8] Ching Jen Chiu, "Research on Labor Flow in Taiwan's Agricultural Sector," National Taiwan University, 2004.

