Contents

	Page
Abstract	iii
Acknowledgements	v
Contents	vi
List of Tables	viii
List of Figures	ix
Chapter 1: Introduction	1
1.1 Background and rationale .	1
1.2 Objectives	5
1.3 Definition of terms	6
1.4 Literature review	7
Chapter 2: Methodology	10
2.1 Computer applications	10
2.2 Study design	10
2.3 Path diagram and variables	12
2.4 Data collection, management and data analysis	. 14
2.5 Statistical methods	15
Chapter 3: Preliminary Data Analysis	18
3.1 Variable types	18
3.2 Association between the fertility rate and determinants	23
3.3 Total fertility rate	27
Chapter 4: Logistic Regression Modeling	32
4.1 Logistic regression model to estimate the fertility	32

4.2 Fertility trend in Southern Thailand	35
Chapter 5: Conclusion and Discussion	36
5.1 Conclusion	36
5.2 Discussion	37
5.3 Finding	38
5.4 Recommendation and future research	39
References	40
Appendix	42
Vitae	50

List of Tables

Table	Page
1.1 Total fertility rate by region, Thailand 1960-2000	3
3.1 Variables types and roles	18
3.2 Number of births	19
3.3 New group variables types and roles	22
3.4 Total fertility rate and age-specific components based on births from 4 provinces	28
3.5 Total fertility rate by demographic region based on birth registrations	28
3.6 Estimates of numbers of births registered in 8 demographic regions classified by	
region of residence of mother	29
3.7 Total fertility rate by demographic region based on birth registrations and	
numbers of mothers in denominator adjusted for region of registration	31
3.8 Total fertility rate by demographic region and mother's age group based on birth	
registrations	31
4.1 Results of logistic model to outcome monthly birth rate	35

List of Figures

Figures	Page
1.1 World fertility rate	2
1.2 Fourteen provinces in Southern Thailand	4
2.1 Classification of districts in four southern Thai provinces by percent Muslim	11
2.2 Age pyramids for Muslim and non-Muslim populations in fourteen provinces	12
3.1 Histograms and numerical summaries of transformed data	22
3.2 Comparison of fertility rate by year	23
3.3 Comparison of fertility rate by period	23
3.4 Comparison of fertility rate by month	24
3.5 Comparison of fertility rate by season	25
3.6 Comparison of fertility rate by province	25
3.7 Comparison of fertility rate by region	26
3.8 Comparison of fertility rate by age-group	27
4.1 Logits of monthly birth rates based on logistic regression model	35