EMMC GROWTH FACTORS

A LOOK AT FACTORS THAT IMPACT GROWTH

IN CHURCHES

OF

THE EVANGELICAL MENNONITE MISSION CONFERENCE

Вy

EDDY REMPEL, B.R.S., B.Math

A Thesis

Submitted to the School of Graduate Studies

In Partial Fulfilment of the Requirements

For the Degree

Master of Science

McMaster University

© Copyright by Eddy Rempel, December 2006

MASTER OF SCIENCE (2006)McMaster UniversityBACHELOR OF MATHEMATICS (1995)Waterloo UniversityBACHELOR OF RELIGIOUS STUDIES (1990)Steinbach Bible College

TITLE: A Look at Factors that Impact Growth in Churches of the Evangelical Mennonite Mission Conference

AUTHOR: Eddy Rempel, B.R.S., B.Math

SUPERVISOR: Professor Lehana Thabane

NUMBER OF PAGES: xii, 219

Abstract

Background

Canadian domination of Christianity is challenged by eastern religions. Affiliation with the Mennonite faith fell 8% from 1991 to 2001. The Evangelical Mennonite Mission Conference (EMMC) recently adopted a regional structure across Canada, the United States, Mexico, and Belize. It wishes to measure its recent growth rate and investigate growth factors across regions.

Methods

Using EMMC Records of church membership and attendance, surveys of senior pastors and church leaders, we grouped the 37 churches by region, size, and growth status, modelled church growth using univariate and multivariable models.

Leaders perception of occupation and activity faith would compromises their faith and the level of assistance their church required and received, and expectation of five-year change in their church attendance were modelled using generalized estimating equations.

Results

Attendance growth varied across regions and church size - small (0-99; 9%), medium (100-299; 14.2%), and large (300+; -3%). For 33 of 37 responding senior pastors 61% of new members were transferees, few churches took listed growth promotion steps, 54% of attendees attend Sunday school, 26% attend Bible study, 30% attended the last annual meeting 42% received a donation receipt, 91% own their building, 70% have the worship space filled less than 80% capacity, 77% had a single board, and 59% had board term limits and the senior pastor overseeing other pastors. None of the tested factors predicted change in attendance.

Almost half (49%) of 517 EMMC registered leaders completed the questionnaire. Of these 87% claimed Mennonite ancestry. The scores measuring the opinionated degree that particular jobs and activities would compromise their faith were higher for leaders with university education, first speaking Plautdietsch, in Mexico or Belize but lower in Saskatchewan. Leaders

at new and small churches believe their churches require and received more assistance than those from large churches. The church required assistance score was substantially higher than the received assistance (mean 16.0 vs. 9.4).

Conclusion

In spite of apparent robust growth in the EMMC, this growth is limited to the frontier regions. The demographics of the leaders indicate that outreach to other ethnic groups has not produced leaders yet. We did not identify any factors associated with growth.

Acknowledgements

The successful completion of this project depended on contributions by many people. I would like to acknowledge the people who assisted in this endeavour.

First of all I would like to thank my project supervisor, Dr. Lehana Thabane, a professor in the Department of Clinical Epidemiology and Biostatistics, at McMaster University. He guided the progression through all phases of this project — overall study design, design of questionnaires, ethics application, analysis, write-up and presentation. His suggestions and probing questions were essential to the success of this research project.

I also gratefully acknowledge the Professors Macdonald and Viveros for their investment in my education, by teaching courses and as members of the examining committee.

Likewise this work has relied on subject matter experts to prompt pertinent research questions and guide the creation of the survey questionnaires. In particular, I am indebted to the research advisors, Jake Thiessen and Gin Thiessen, assigned by the EMMC General Council. They have represented the EMMC in this project from its inception by prompting research questions, contributing to the creation of both questionnaires and acting as the liaison to the EMMC head office to obtain and clean EMMC Records.

I gratefully acknowledge the cheerful efforts of Lil Goertzen at the EMMC office for providing EMMC Records data and compiling the list of churches and leaders. I am also grateful to the EMMC General Council, particularly chair Frank Friesen, for its vision to pursue this project and the resources to fund the administration of the study.

Various people contributed to the design and wording of the questionnaires. Jack Heppner, freelance writer and former professor at Steinbach Bible College; Dr. Terry Hiebert, professor and academic dean at Steinbach Bible College; and Abe Harms, Director of the Aylmer Resource Centre, contributed to development of the theological questions.

I also acknowledge the efforts of volunteers in the administration of the study. Yolanda Rempel, Susie Reimer, and Helen Bergen entered data from returned survey questionnaires. My wife, Pauline Rempel, prepared survey mailings, and administered many facets of the study. Most of all I am thankful for her constant encouragement.

vi

Table of Contents

1. INTRODUCTION		
1.1.Background11.1.1.Mennonite Origins11.1.2.Overview of the EMMC21.1.3.Review of Relevant Literature2		
1.2. Objectives – EMMC records 5 1.2.1. Overview of EMMC Growth Trends 5 1.2.2. Grouping Churches by Region, Size, and Growth Status 6		
1.3. Objectives – National Census Data		
1.4.Objectives – Survey of Senior Pastors.61.4.1.Demographics off EMMC Senior Pastors.61.4.2.Examination of Membership Gains and Losses.61.4.3.Church Initiatives to Promote Growth.71.4.4.Participation in Church Life81.4.5.Church Facility and Financial Resources81.4.6.Church Organizational Structure8		
1.5. Objectives – Survey of Church Leaders		
2. METHODS10		
2.1. Study Design		
2.2. Data Sources 10 2.2.1. EMMC Records of Membership and Attendance 10 2.2.2. National Census Demographics of Church Neighbourhoods 10 2.2.3. Surveys 11		
2.3. Questionnaire Design.112.3.1. Survey of Senior Pastors.122.3.2. Survey of Church Leaders.122.3.3. Questionnaire Delivery Method122.3.4. Survey Distribution, Follow-up and Data Entry132.3.5. Ethical Considerations.14		
2.4. Linking of Data Sources		

2.5. EMI	MC Records	15
251	Overview of EMMC Growth Trends	15
252	Grouping Churches by Region Size and Growth Status	16
2.6 Nati	onal Consusos	17
2.0. Nau	Demographics of Church Noighbourhoods	17
2.0.1.	Demographics of Church Neighbourhoods	17
0.7 0	to a forming Depters	47
2.7. Sur	vey of Senior Pastors	17
2.7.1.	Demographics of Senior Pastors	17
2.7.2.	Examination of Membership Gains and Losses	17
2.7.3.	Church Initiatives to Promote Growth	18
2.7.4.	Participation in Church Life	18
2.7.5.	Church Facility and Financial Resources	19
2.7.6.	Church Organizational Structure	19
2.8. Sur	vey of Church Leaders	19
2.8.1.	Demographics of Church Leaders	19
2.8.2.	Generalized Estimating Equations Models	21
2.8.3.	Compromises to Anabaptist Faith	20
2.8.4.	Assistance from Conference churches	20
2.8.5.	Expectation of future increases in Church Attendance	20
2.8.6.	Population Size Issues	21
0 000		
3. RESU	LIS – CHURCH LEVEL ANALYSIS	22
3.1. EMI	MC Records of Attendance and Membership	22
3.1. EMI 3.1.1.	MC Records of Attendance and Membership Overview of EMMC Growth Trends	22
3.1. EMI 3.1.1. 3.1.2.	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status	22 22 22
3.1. EMI 3.1.1. 3.1.2.	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status	22 22 22
3.1. EMI 3.1.1. 3.1.2. 3.2. Nati	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status	22 22 23
3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1.	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods	22 22 23 23
3.1. EMI 3.1.1. 3.1.2. 3.2. Nat 3.2.1.	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods	22 22 22 23 23
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nat 3.2.1. 3.3. Sur 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods	22 22 23 23 23 23
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nat 3.2.1. 3.3. Sur 3.3.1 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates	22 22 23 23 23 24
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sur 3.3.1. 3.3.2 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates Demographics of Senior Pastors	22 22 23 23 24 24 24 24 24
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sun 3.3.1. 3.3.2. 3.3.3 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates Demographics of Senior Pastors Comparison of the Survey of Senior Pastors with EMMC Records	22 22 23 23 23 24 24 24 24 24 24 22
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sun 3.3.1. 3.3.2. 3.3.3. 3.3.4 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates Demographics of Senior Pastors Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses.	22 22 23 23 23 24 24 24 24 24 25 25 25
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sur 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates Demographics of Senior Pastors Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses Church Initiatives to Promote Growth	22 22 23 23 23 24 24 24 24 25 25 25 25
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sur 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates Demographics of Senior Pastors Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses Church Initiatives to Promote Growth Participation in Church Life	22 22 23 23 24 24 24 24 25 25 25 25 25 26
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sur 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6. 3.3.7 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates Demographics of Senior Pastors Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses. Church Initiatives to Promote Growth Participation in Church Life Eacility and Einancial Resources	22 22 23 23 24 24 24 24 25 25 25 26 26 26
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nat 3.2.1. 3.3. Sun 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6. 3.3.7. 3.3.8 	MC Records of Attendance and Membership Overview of EMMC Growth Trends. Grouping Churches by Region, Size, and Growth Status ional Censuses. Demographics of Church Neighbourhoods. vey of Senior Pastors Response rates Demographics of Senior Pastors. Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses. Church Initiatives to Promote Growth. Participation in Church Life. Facility and Financial Resources. Organizational Structure	22 22 23 23 24 24 24 25 25 25 26 26 26 26 26
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nat 3.2.1. 3.3. Sun 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6. 3.3.7. 3.3.8. 3.3.9 	MC Records of Attendance and Membership Overview of EMMC Growth Trends. Grouping Churches by Region, Size, and Growth Status ional Censuses. Demographics of Church Neighbourhoods. vey of Senior Pastors Response rates Demographics of Senior Pastors. Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses. Church Initiatives to Promote Growth. Participation in Church Life. Facility and Financial Resources. Organizational Structure. Models	22 22 23 23 23 24 24 24 24 25 25 25 26 26 26 26 26 26
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nat 3.2.1. 3.3. Sur 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6. 3.3.7. 3.3.8. 3.3.9. 	MC Records of Attendance and Membership. Overview of EMMC Growth Trends. Grouping Churches by Region, Size, and Growth Status ional Censuses. Demographics of Church Neighbourhoods. Vey of Senior Pastors Response rates Demographics of Senior Pastors. Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses Church Initiatives to Promote Growth. Participation in Church Life. Facility and Financial Resources. Organizational Structure. Models	22 22 22 23 23 23 23 24 24 24 24 25 25 25 26 26 26 26 26 26
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nat 3.2.1. 3.3. Sur 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6. 3.3.7. 3.3.8. 3.3.9. 	MC Records of Attendance and Membership Overview of EMMC Growth Trends. Grouping Churches by Region, Size, and Growth Status ional Censuses. Demographics of Church Neighbourhoods. vey of Senior Pastors Response rates Demographics of Senior Pastors. Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses Church Initiatives to Promote Growth. Participation in Church Life. Facility and Financial Resources. Organizational Structure. Models	22 22 23 23 23 24 24 24 24 25 25 25 26 26 26 26
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sur 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6. 3.3.7. 3.3.8. 3.3.9. 4. RESU 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates Demographics of Senior Pastors Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses. Church Initiatives to Promote Growth Participation in Church Life Facility and Financial Resources Organizational Structure Models	22 23 23 23 23 24 24 24 24 25 25 26 26 26 26 26 26
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sur 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6. 3.3.7. 3.3.8. 3.3.9. 4. RESU 	MC Records of Attendance and Membership. Overview of EMMC Growth Trends. Grouping Churches by Region, Size, and Growth Status. ional Censuses. Demographics of Church Neighbourhoods. vey of Senior Pastors Response rates Demographics of Senior Pastors. Comparison of the Survey of Senior Pastors with EMMC Records. Examination of Membership Gains and Losses. Church Initiatives to Promote Growth. Participation in Church Life. Facility and Financial Resources. Organizational Structure. Models.	22 23 23 23 23 24 24 24 24 25 25 26 26 26 26 26 26
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sur 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6. 3.3.7. 3.3.8. 3.3.9. 4. RESU 4.1. Sur 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates Demographics of Senior Pastors Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses. Church Initiatives to Promote Growth Participation in Church Life Facility and Financial Resources Organizational Structure Models	22 22 23 23 24 24 24 24 25 25 25 26 26 26 26 26 26 27
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sun 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6. 3.3.7. 3.3.8. 3.3.9. 4. RESU 4.1. Sun 4.1. Sun 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates Demographics of Senior Pastors Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses. Church Initiatives to Promote Growth. Participation in Church Life Facility and Financial Resources. Organizational Structure. Models VLTS – LEADER LEVEL ANALYSIS	22 22 23 23 24 24 24 24 25 25 25 26 26 26 26 26 27 27 27
 3.1. EMI 3.1.1. 3.1.2. 3.2. Nati 3.2.1. 3.3. Sun 3.3.1. 3.3.2. 3.3.3. 3.3.4. 3.3.5. 3.3.6. 3.3.7. 3.3.8. 3.3.9. 4. RESU 4.1. Sun 4.1.1. 4.12. 	MC Records of Attendance and Membership Overview of EMMC Growth Trends Grouping Churches by Region, Size, and Growth Status ional Censuses Demographics of Church Neighbourhoods vey of Senior Pastors Response rates Demographics of Senior Pastors Comparison of the Survey of Senior Pastors with EMMC Records Examination of Membership Gains and Losses Church Initiatives to Promote Growth Participation in Church Life Facility and Financial Resources Organizational Structure Models Vey of Church Leaders Response rates Demographics of Church Leaders Response rates Demographics of Church Leaders	22 22 23 24 24 24 24 25 25 25 26 26 26 26 27 27 27 27

4.1.4 4.1.5	 Assistance from Conference churches Expectation of future increases in Church Attendance 	28 28
5. D	ISCUSSION AND CONCLUSION	
5.1.	Discussion	
5.2.	Conclusion	
5.3.	Limitations of the Study	
5.4.	Expected Significance of Research	
FIGU	RES	
TABL	ES	

List of Figures

Figure 1.	Map of EMMC Churches
Figure 2.	Graph Attendance by Year35
Figure 3.	Normal Q-Q Plot for Linear Model of Change in Attendance by Year36
Figure 4.	Scatter plot of Percentage Change 2000-05 in Attendance by Church Size - Attendance in the Year 2000
Figure 5.	Data Flow Diagrams of Surveys of Pastors and Leaders
Figure 6.	Normal Q-Q Plot for Linear Model of Percentage Increase in Attendance by Church Level Covariates
Figure 7.	Q-Q Plot for Generalized Estimating Equations Model of Jobs Compromising Christian Faith Score by Leader Demographics and Church Region, Size, Growth Status
Figure 8.	Q-Q Plot for Generalized Estimating Equations Model of Activities Compromising Christian Faith Score by Leader Demographics and Church Region, Size, Growth Status
Figure 9.	Q-Q Plot for Generalized Estimating Equations of Church Assistance Required by Leader Demographics and Church Region, Size, Growth Status
Figure 10.	Q-Q Plot for Generalized Estimating Equations of Church Assistance Received by Leader Demographics and Church Region, Size, Growth Status
Figure 11.	Q-Q Plot for Generalized Estimating Equations of Expectation of Increased Attendance by Leader Demographics and Church Region, Size, Growth Status (all observations)
Figure 12.	Q-Q Plot for Generalized Estimating Equations of Expectation of 5-Year Increased Attendance by Leader Demographics and Church Region, Size, Growth Status (outliers > 100 excluded)
Figure 13.	Q-Q Plot for Generalized Estimating Equations of Expectation of 5-Year Increased Attendance by Leader Demographics and Church Region, Size, Growth Status (outliers > 100 truncated)

List of Tables

Table 1a.	Canadian Affiliation of Christian denominations with counts of 50,000 or more in 1991 and 200147
Table 1b.	Canadian Affiliation of selected Religions in 1991 and 200147
Table 2.	Annual Attendance and Membership in EMMC Churches
Table 3a.	Change in EMMC and EMC Attendance, Membership, and Number of Churches, 1991 to 2001
Table 3b.	Change in EMMC Attendance, Membership and Number of Churches, 2000 to 2005
Table 4a.	Number of Churches in Region by Size, and Growth Status
Table 4b.	Number of Churches in Heartland and Frontier by Size and Growth50
Table 5a.	2000 to 2005 Relative Change in Attendance of EMMC Churches by Region 51
Table 5b.	2000 to 2005 Relative Change in Attendance of EMMC Churches by Church Size Groupings
Table 5c.	2000 to 2005 Relative Change in Attendance of EMMC Churches by Church Growth Status
Table 6.	Availability of Demographic Data from National Census Web Database
Table 7.	Medians of Church Neighbourhoods Demographics53
Table 8.	Univariate Linear Models of % Increase in 2000 to 2005 Attendance by Church Neighbourhoods Demographics
Table 9.	Completed Responses of Surveys to Senior Pastors and Church Leaders by Region
Table 10.	Demographics of Pastors and Leaders Responding to the Surveys
Table 11.	Church Attendance and Membership 2004 and 200557
Table 12a.	Gains or Losses of EMMC Memberships in Calendar year 200558
Table 12b.	Transfers of EMMC Memberships in Calendar year 2005
Table 13a.	Church Initiatives to Promote Growth59
Table 13b.	Attendee Participation in Church Life59

Table 13c.	Church Facility and Financial Resources
Table 13d.	Church Organizational Structure
Table 14a.	Univariate Linear Models of % Increase in Attendance 2000-2005 by Church Initiatives to Promote Growth
Table 14b.	Univariate Linear Models of % Increase in Attendance 2000-2005 by Participation in Church Life
Table 14c.	Univariate Linear Models of % Increase in Attendance 2000-2005 by Facility and Financial Resources
Table14d.	Univariate Linear Models of % Increase in Attendance 2000-2005 by Organizational Structure
Table 14e.	Multivariate Linear Models of % Increase in Attendance 2000-2005 of Previous Factors* adjusted by Region and Church Size Group60
Table 15a.	Leader Demographics by Region61
Table 15b.	Leader Demographics by Average Attendance 200061
Table 15c.	Leader Demographics by Growth Status 2000-200561
Table 16.	Descriptive Statistics of Leader Opinions about Faith Compromises, Church Assistance and Expected Growth (%)62
Table 17a.	Generalized Estimating Equations of Jobs Comproming Faith Scores by Leader Demographics and Church Region, Size and Growth Status63
Table 17b.	Generalized Estimating Equations of Activities Comproming Faith Scores by
Table 17c.	Generalized Estimating Equations of Church Requiring Assistance Scores by Leader Demographics and Church Region, Size and Growth Status
Table 17d.	Generalized Estimating Equations of Church Receiving Assistance Scores by Leader Demographics and Church Region, Size and Growth Status
Table 17e.	Generalized Estimating Equations of Expected 5-Year Change in Attendance by Leader Demographics and Church Region, Size and Growth Status (outliers over 100 excluded)
Table 17f.	Generalized Estimating Equations of Expected 5-Year Change in Attendance by Leader Demographics and Church Region, Size and Growth Status (outliers truncated to 100)

1. INTRODUCTION

1.1. Background

1.1.1. Mennonite Origins

The Anabaptist faith began in Europe during the 16th century reformation with the conviction that the church must be voluntary and thereby free from the rule of the state^{1,,2}. From its beginnings in Switzerland and Germany, the faith spread rapidly to northern Europe as people of all languages, countries, and ethnicities were encouraged to join. They inherited the name Mennonite, a condescending reference to Menno Simons, one of their early Dutch leaders.

However, harsh persecution including executions and torture by the state and state church authorities prompted migration to more secure places. Faith adherents from Switzerland and Germany migrated west, first to France, then across the Atlantic to the New World. They founded American communities like Germantown (Philadelphia). Many migrated north as British Empire Loyalists during the American Revolution and settled in Southern Ontario.

Though Poland was a Roman Catholic state and papal decrees made being Mennonite a capital offence, Mennonites from the Netherlands migrated to northern Poland where their land redemption skills made them a valuable asset. In response to 17th century Polish and Prussian state directives they conceded not to proselytise in exchange for freedom from harassment. This limit on outreach prompted the ethnic and cultural consolidation of the group. Though the majority of the Mennonite population originated from the Netherlands, the local Low German dialect Plautdietsch eventually replaced Dutch as the language of business and home life. Consistent with the custom across the northern mainland Europe, the Mennonite community also adopted High or Standard German as the language of school and church. After years of protectionism, they came to be seen as an ethnic group by their neighbours, government officials and finally by themselves. This cultural ethnic group was characterized by the Plautdietsch language, Caucasian look, conservative dress, and Polish foods.

The 1642 agreement with Poland became a blueprint for mass migration negotiations to Russia in the 1790s, Canada in the 1870s, Mexico in the 1920s, and Belize in the 1950s. Core components of these agreements, including block (reserve) settlement, military exemptions, and private schools in their own

2 Wenger, J. C., ed., The Complete Writings of Menno Simons. Scottdale, Pa.: Herald Press, 1956.

1

¹ Dyck, Cornelius J., ed., An Introduction to Mennonite History. Scottdale, Pa.: Herald Press, 1967.

language, further consolidated their status as an ethnic and cultural group. The EMMC originated in the 1930s on the Mennonite reserve in Southern Manitoba provided by the provincial government in 1876.

1.1.2. Overview of the EMMC

The Evangelical Mennonite Mission Conference (EMMC) is a loosely linked confederation of 37 churches situated across the Canadian prairies (Alberta-1, Saskatchewan-5, Manitoba-16), Southern Ontario (5) in parts of the United States (Iowa-1, Kansas-1, Texas-2), Mexico (3), and Belize (3). (See Figure 1.) Most of EMMC adherents are descendents of Mennonite immigrants from Russia to Canada in the 1870s.

Mennonite churches have traditionally been characterized by their congregational structure. Membership is reserved for adults who have received adult baptism. However, people baptised previously in other Christian churches are accepted as members without re-baptism. Decisions were made by the entire membership of a local congregation. Pastors were elected by the local church membership and served in that role as volunteers.

Today EMMC churches have established boards as required by law for registered charity organizations. These boards are elected by the membership and usually chaired by an elected volunteer congregational chair. Usually a senior pastor, either a salaried employee of the church or a volunteer, is charged with the task of leading the church under the direction from the membership and the board. Many churches employ additional pastors and administrative staff as their requirements increase.

In recent years, church leaders have been contemplating the future of the conference. The central debates concern the identity of the conference and whether a regional structure would be more effective than the current centralized structure. This, conference leaders believe, would also inspire churches to take initiative in reaching out in their communities and planting new churches.

1.1.3. Review of Relevant Literature

The religious landscape of Canada is changing. The percentage of Canadians aged 15 and older who identified themselves as non-Christian increased from 2% in 1901 to 17% in 1991 and 28% in 2001³. The percentage of Canadians who identify themselves as Christian has decreased by almost 1 percentage point per year since 1981. This trend is very similar to that of the United States where it has increased to 23.5% by 2000 from 13.8% in 1990⁴.

³ Statistics Canada, 2001 Census: analysis series Religions in Canada, Catalogue no. 96F0030XIE2001015, Statistics Canada, 2003.

⁴ ReligiousTolerance.org, Religious Identification in the United States, March 2006.

Though the population of Canada increased 9.8% to almost 30 million from 1991 to 2001, several notable denominations have experienced acute loses in the same period⁵. Of particular interest is the decrease in affiliation⁶ with Mennonite denominations of 8%.^{7,8} (See Table 1a.)⁹,¹⁰

Meanwhile Canadian affiliation with middle-eastern and eastern religions increased dramatically in the same period – Muslim (129%), Buddhist (84%), Hindu (89%), and Sikh (89%) – and the majority (52%) of immigrants coming to Canada in that decade are affiliated with these religions¹¹. (See Table 1b)

The data suggest that the trend away from mainline Christian faiths will continue as the ages of their adherents continue to rise. In Canada the median age of mainline denomination affiliates - Anglican, Lutheran, Methodists, Presbyterian, Ukrainian Catholic, Ukrainian Orthodox, and United Church – are much older than the Canadian population (43 to 46 vs. 37 years). The median age of Canadian affiliates with Roman Catholic (38) and Greek Orthodox (41) are older than the overall population. Conversely, the median ages of Islamic and Sikh affiliates and no religion are 28, 30 and 31 respectively.¹² The trend toward aging affiliates of mainline churches is similar in the United States where only 10 to 12% of those identifying with the Congregational, Episcopalian, Methodist, Presbyterian, and United Church denominations are between the ages of 18 and 29 while 56% of Muslims are in this youthful age group.¹³

The One must be careful not to assume that Canadian Christians are switching their affiliation to other religions. Statistics Canada points out that the increase in affiliation with non-Christian religious is due to immigration from areas

12 Religious Tolerance.org, Religious Makeup of Canada, March 2006

13 ReligiousTolerance.org, Religious Identification in the United States., March 2006

⁵ ReligiousTolerance.org, Religious Makeup of Canada, March 2006

⁶ The Canadian Census uses the word "affiliate" to inquire the adherent of a religious group. The American Census uses "identify".

⁷ Statistics Canada, 2001 Census: analysis series Religions in Canada, Catalogue no. 96F0030XIE2001015, p. 18, Statistics Canada, 2003.

⁸ Statistics Canada, 2001 Census: analysis series Religions in Canada, Catalogue no. Statistics Canada - Cat. No. 97F0022XCB2001002, Statistics Canada, 2003.

⁹ The Census includes self declared "affiliation" with a religious group. Statistics Canada groups Christian sub-groups into Catholic, Protestant, Christian Orthodox, and Christian not otherwise identified, irrespective as to how the Church leadership identifies their group. Mennonites were not considered Protestant in their beginnings and still do not consider themselves to be Protestant.

¹⁰ Klaassen, Walter. Anabaptism: Neither Catholic nor Protestant. Pandora Press, 2001.

¹¹ Statistics Canada, , 2001 Census: analysis series Religions in Canada, Catalogue no. Statistics Canada - Cat. No. 97F0022XCB2001002, p. 18, Statistics Canada, 2003.

where other religions dominate¹⁴. One prominent researcher goes further, stating that assimilation of religions is toward the dominant faith - some 20% of Buddhist, Hindu, Muslim, or Sikh no longer identify with their religion by their late teens¹⁵.

The affiliation or identification with a religious group does not translate directly into membership or attendance at a corresponding place of worship since the census data reflect only self-attributed religious affiliation (Canadian) or identification (American) of the respondent. The Angus Reid Group showed that about 21% of Canadian adults report that they attend a religious service weekly. Researchers believe the true attendance to be 10%, about half the reported number in both Canada and the United States.¹⁶

Examination of religious affiliation in national censuses does not extend to the religious organizations or churches themselves. This opens the debate among church growth authorities as to the church characteristics that correspond with growth. In particular, experts debate whether the number of adherents to a church impacts its growth rate. Christian Schwartz has conducted research into thousands of Christian churches of many denominational affiliations spanning 32 countries on all continents. He believes that a church's growth slows after reaching an attendance of about 200 people.¹⁷ He advocates putting efforts into planting additional churches instead of attempting to grow churches larger with diminishing returns. However, founding pastors of large mega-churches dispute this notion noting that their churches are large because their small churches grew.¹⁸ And they also promote church planting in addition to growing the local church attendance and membership.

Advocates of both schools have developed assessment tools to determine factors associated with growth. Schwartz developed the Natural Church Development assessment instrument to determine church health in each of the following quality factors: Empowering Leadership, Gift-oriented Ministry, Passionate Spirituality, Functional Structures, Inspiring Worship Services, Holistic Small Groups, Need-oriented Evangelism, and Loving Relationships¹⁹.

16 Religious Tolerance.org, Religious Makeup of Canada., March 2006

19 Schwartz, Christian., Natural Church Development: A Guide to Eight Essential Qualities of Health Churches, ChurchSmart, 1998, p. 48.

4

¹⁴ Statistics Canada, 2001 Census: analysis series Religions in Canada, Catalogue no. Statistics Canada - Cat. No. 97F0022XCB2001002, Statistics Canada, 2003.

¹⁵ Bibby, Reginald W. Restless Churches: How Canada's Churches Can Contribute to the Emerging Religious Renaissance. Toronto, ON: Novalis/Saint Paul University, 2004p42.

¹⁷ Schwartz, Christian, Natural Church Development: A Guide to Eight Essential Qualities of Health Churches, ChurchSmart, 1998, p. 47.

¹⁸ Warren, Rick. The Purpose Driven Church. Grand Rapids: MI: Zondervan, 1995.

Masters Project – E. Rempel

Mega-churches such as Saddleback Community Church²⁰ and Willowcreek Community Church²¹ have developed their own evaluation methods.

The published research provides insight into the religious trends over time. However, it is limited for church trends since census data focus on the religious group adherents and not the churches themselves. Moreover, both census and church studies of religion group denominations into larger faith groupings limiting studies of a small denomination like the EMMC. Typically EMMC churches are lumped into a general Mennonite category and often Mennonites are lumped into Protestant Christian. Furthermore, demographic studies are usually national whereas EMMC churches span four countries.

To date no research of EMMC attendance and membership trends or comparisons to other faith groups has been conducted. Neither has any study examined the EMMC characteristics and growth patterns across their geographic regions.

This study examines an overview of EMMC membership, attendance, and number of churches since the EMMC began collecting the data in 1961. We set out to understand the growth patterns of EMMC churches in different regions and differing church sizes. Ww also examined some opinions of EMMC church leaders.

1.2. Objectives – EMMC records

1.2.1. Overview of EMMC Growth Trends

First, we sought to learn whether the rate of change is constant over time. In the interest of adding context to these growth rates, we will compare the relative change of EMMC average church attendance and end-of-year membership data with that of Christian and Mennonite religious affiliation for the most recent Canadian census comparison period.

Then we sought to determine the most recent five-year relative change in attendance and membership at EMMC churches. Since the definitions of annual attendance and membership data of EMMC records are somewhat ambiguous, we also verified their accuracy by comparing them with average attendance and end-of-year membership based on a clear question to senior pastors. Similar results would confirm the validity of calculating five-year percentage increases using EMMC records.

²⁰ Warren, Rick., The Purpose Driven Church. Grand Rapids, MI: Zondervan, 1995.

²¹ Natural Church Development, http://www.ncdcanada.com/stats1.asp May 2006.

1.2.2. Grouping Churches by Region, Size, and Growth Status

Since 1952 when the EMMC organized into a conference, it has been a centralized structured with a head office in Manitoba. Each church is autonomous with few relationships to other churches that provide accountability and assistance. The extension of EMMC churches to the United Sates, Mexico, and Belize has prompted EMMC leaders to consider regional restructuring. In recognition of existing regional differences, the 2006 EMMC Convention formalized a structure with regions in Southern Manitoba (the site of the 1876 reserve settlement where the EMMC was founded), Western Manitoba, Central Manitoba, Saskatchewan (and Alberta), Ontario, United States, Mexico, and Belize. The process of regionalization, together with the debate regarding effective church size, prompts one to consider how the churches differ across regions, by church size and growth status.

Since the EMMC has not defined an ideal church size, we grouped the churches into size groupings (large, medium, small, and new since 2000). We also defined growth status groupings (new, increasing, maintaining, and decreasing) by the relative change in average attendance from 2000 to 2005. These region, size, and growth status groupings provide a framework for examination of church characteristics.

1.3. Objectives – National Census Data

1.3.1. Demographics of Church Neighbourhoods

In this study we sought to examine characteristics of the neighbourhoods in which each of the EMMC churches is located, including population density (urban, rural), median income, median age, gender, educational levels, ethnicity, religious affiliation, and marital status.

1.4. Objectives – Survey of Senior Pastors

1.4.1. Demographics of EMMC Senior Pastors

The demographic characteristics of EMMC senior pastors examined include age, gender, education levels, marital status, ethnicity, language first spoken, and country of birth.

1.4.2. Examination of Membership Gains and Losses

It would be advantageous for church leaders to understand the nature of church attendance fluidity. In particular, pastors desire to know whether people drop out of church life completely or connect with another church when they cease attendance at their church. Rigorous study of those questions would Masters Project – E. Rempel

require an extensive survey of the attendees. The scope of this project limited us to examine only people who have become members in EMMC churches because the records are already collected.

Church memberships are added and removed in various ways. People can be added to a membership either by baptism or transfers from other churches and can be removed by death, dismissal by the membership, voluntary withdrawal of a member, or a transfer to another church.

We sought to determine the number of members that were added to EMMC churches by baptism and transfer from other churches and how many members were removed from EMMC churches by death, dismissal, withdrawal, or transfer in 2005.

Furthermore, we endeavoured to examine the transfers from or to other churches in more detail. Church members may choose to join the membership of another church after they move to a new area. Others may decide to join a nearby church. We desired to determine how many EMMC members were transferred both from and to local and distant churches.

Another phenomenon observed in Mennonite churches is the shift of attendees and members from traditional churches to less traditional churches. We desired to determine if the EMMC gains members from more traditional Mennonite churches such as the Old Colony, Reinlander, Sommerfelder, Kleine Gemeinde, and Bergthaler while losing members to less traditional churches such as the Mennonite Brethren, Brethren in Christ, and General Conference.

1.4.3. Church Initiatives to Promote Growth

Church growth experts believe that particular practices or attitudes of church leaders result in growth²². We examined whether the following church initiatives are correlated with growth: selecting one particular spiritual gifts assessment tool, conducting a Natural Church Development (NCD) evaluation, having multiple worship services, and having separate worship services for multiple language groups. We also checked whether the following use of church funds correlate with increased growth, whether the church budgets for staff and non-staff training, and whether the church donates to physical relief in the community and local missionary outreach.

At the 2002 EMMC Convention the NCD assessment method developed by Christian Schwartz was promoted to EMMC churches. The NCD assessment analyzes a standardized questionnaire completed by church leaders to determine

7

²² Schwartz, Christian., Natural Church Development: A guide to Eight Essential Qualities of Healthy Churches. 3rd ed. Carol Stream, IL: ChurchSmart Resources, 1998, p.20

an overall church health score and the following eight quality factors: empowering leadership, gift-oriented ministry, passionate spirituality, functional structures, inspiring worship services, holistic small groups, need-oriented evangelism, and loving relationships. We hoped to determine whether the overall score and the eight quality factors of the assessment correlate with growth in EMMC churches.

1.4.4. Participation in Church Life

Research has shown a decrease in participation in church activities²³. We sought the proportion of attendance participation of church attendees in several activities including Sunday school, Bible study, annual meeting and receipted donations in 2005.

1.4.5. Church Facility and Financial Resources

The role of material resources in church growth is uncertain. Some of the most resource deficient churches have experienced incredible growth while some wealthy churches have stagnated²⁴. We desired to learn the number and proportion of churches that are resourced at a particular level, by examining whether the church owns the building, the average attendance would fill less than 80% of the corporate worship space, and has debt or non-capital debt.

1.4.6. Church Organizational Structure

This study also attempted to examine dichotomous organizational structure factors, including whether one board or council sets the direction of the church, the board members have term limits, boards hire senior pastors, membership approves the budget, and senior pastors oversees other pastors. We tested the hypothesis that these factors correlate with increased five-year church attendance.

1.5. Objectives – Survey of Church Leaders

1.5.1. Demographics of EMMC Church Leaders

This study attempted to generate a demographic profile of church leaders including characteristics such as age, gender, education levels, marital status, ethnicity, language first spoken, and country of birth. We also inspected the role of the leader in their local church. Our objective was to summarize these leader attributes by region, church size, and growth status of the church to which they belong. Since the EMMC, like most Mennonite denominations, insists it is a faith

²³ Bibby, Reginald W. Restless Gods. Toronto, Ontario: Novalis/Saint Paul University, 2004, p 79.

²⁴ Towns, Elmer L., Vaughan, John N., Seifert, David J. the complete book of Church Growth: 100 largest churches, 100 largest Sunday schools, Profiles of the world's most dynamic churches, Methods of church growth, What the Bible says about church growth. 7th ed. Wheaton, IL: Tyndale House Publishers, Inc., 1987, p.61

group and actively welcomes people of any ethnic group, and the scope of this study limits us from measuring the ethnic makeup of all EMMC members, we attempted to determine the proportion of EMMC leaders that have Russian Mennonite ethnicity.

1.5.2. Compromises to Anabaptist Faith

Since Mennonite churches do not have a central hierarchical organizational structure, defining the Anabaptist faith position is difficult though various authors have attempted to do so²⁵. Though the EMMC has adopted a statement of faith, it has not developed a test of Anabaptist faith. However, a 12-point summary of Anabaptist characteristics articulated by the Conference of Mennonite Brethren²⁶, offered practical assistance. We wondered how much particular occupations and activities would compromise leaders' faith. We wish to model a score representing this value by the leader demographics and church region, size, and growth status.

1.5.3. Assistance from Conference churches

One of the objectives of regionalization of churches into closely linked groups was for churches to share resources and offer mutual support. We desired to measure church leaders' opinions as to the amount of assistance their church requires and receives. Since the EMMC has no historical data or measures of the assistance requested or given to individual churches, we endeavoured to make baseline measures of the assistance that is required and received from associated churches. Then we determined to model them by the leader demographics and church region, size, and growth status.

1.5.4. Expectation of future increases in Church Attendance

We attempted to measure church leaders' expectation of future church increases in attendance and model it by the demographics of their leaders and church region, size, and growth status.

25 Klaassen, Walter., Anabaptism: Neither Catholic nor Protestant, 3rd ed., Pandora Press, Kitchener, 2001.
26 Redekop, John H., Anabaptism: The Basic Beliefs., Canadian Mennonite Brethren Board of Faith and Life, Winnipeg, 1993.

Masters Project – E. Rempel

2. METHODS

2.1. Study Design

This study is a mixture of retrospective data review of EMMC records, national census statistics and cross-sectional surveys of senior pastors and church leaders.

2.2. Data Sources

The primary data sources are the EMMC Church Records of Attendance and Membership, a Survey of Senior Pastors, and a Survey of Church Leaders. These are supplemented by national census demographics of church neighbourhoods.

2.2.1. EMMC Records of Membership and Attendance

Church membership and attendance records are collected annually by the EMMC conference office via a survey of the churches. The onus is on the individual church to estimate or calculate these data. Since the attendance and membership questions on the annual EMMC questionnaires are ambiguous, it is uncertain what definitions the individual churches used in their responses. We considered the definitions to be the average attendance in the primary corporate worship services over the course of the year and the membership total at the end of the respective year. The number of churches is simply a count of churches with an attendance in a given year.

2.2.2. National Census Demographics of Church Neighbourhoods

Obtaining demographics of a neighbourhood around the church requires access to four national census databases. Each of the countries with EMMC churches allows open access to community census data via web-based queries. For each church we sought the smallest geographic neighbourhood in which the church building or regular meeting place is located for which census demographic data were available without a data request. The variables of interest include gender, median age, median household income, educational levels, ethnic makeup, first language, religious affiliation, and marital status. Care was taken to verify that the definitions for the demographic statistics for the four countries are close to equivalent, the definitions of neighbourhoods are similar, and the data are from a similar time period. Masters Project – E. Rempel

The neighbourhood of each Canadian church was defined as the 2001 census subdivision in which the church is located. We utilized the Statistics Canada web-based 2001 Community Profiles for the demographic data²⁷.

American church neighbourhood demographics was obtained from the Fact Sheet on the American 2000 Census website for the township or city²⁸.

The University of Costa Rica has created a web-based census search tool for recent censuses of many Latin American countries including Mexico and Belize²⁹. This service facilitates summaries of raw data, as opposed to the aggregate summaries provided in the Canadian community profiles or the American fact sheet. The data include many additional variables but some data may be missing or out of range.

Demographic information of the 2001 Belizean census of the municipality in which the churches are located can be easily obtained from this website. Municipality demographics of 2000 Mexican EMMC church neighbourhoods was obtained from the same service.

2.2.3. Surveys

The majority of the data utilized in this study were collected via two surveys of EMMC pastors and church leaders. The EMMC publishes a "Directory of Congregations" annually which lists mailing and contact information of every EMMC church. It also lists the names, roles and contact information of each church leader. This publicly available directory provided the sampling frame for both the Survey of Senior Pastors and the Survey of Church Leaders. Given the small number of churches (37) and leaders (517), we decided to survey all senior pastors and leaders rather than merely a sample.

The language of correspondence in pertinent regions of Canada, United States, and Belize is English. Though Mexico is officially Spanish, the senior pastors of the Mexican churches all speak some English. Many of the Mexican church leaders also read English so we hoped to obtain a good response without the expense and effort of translating the documents into Spanish.

2.3. <u>Questionnaire Design</u>

The survey questionnaires were designed to gather adequate data to answer all the research questions while minimizing response burden. The

²⁷ http://www12.statcan.ca/english/profil01/CP01/Index.cfm?Lang=E, May 2006

²⁸ http://factfinder.census.gov, May 2006

²⁹ University de Costa Rica, www.censos.ccp.ucr.ac.cr, May 2006

questionnaires were designed by the Tailored Design method advocated by Dillman³⁰ to maximize the survey response rate, reduce response burden, maximize response to individual questions, and gather unambiguous responses. Since we do not have luxury of reliability tested questionnaires other measures were taken to ensure objective responses. We used simple language and required only check box selection from a list for most responses though a few required short answers. Each question was asked in the order that the respondent would consider the information. Demographic questions were asked using the same wording as the 2001 Canadian census forms to facilitate comparisons. These logically ordered questions were printed in a visually relaxing layout on one side of paper only. The questionnaires were reviewed by the EMMC appointed advisors to reduce the potential for geographic bias and to focus the questions.

2.3.1. Survey of Senior Pastors

The Survey of Senior Pastors was directed to the volunteer or salaried senior pastor of each of the 37 EMMC churches. In cases where the church senior pastor position was vacant, we requested the interim pastor or chair of the board to complete the survey. The survey collected church level administrative data regarding church membership, attendance and practices of corporate worship services, participation in church life by members and attendees, church structure and decision-making, staffing, and technological and financial resources. Therefore, the pastor likely had to consult with the treasurer and administrative assistant to complete the one-hour 12-page questionnaire (see Figure 5a.).

2.3.2. Survey of Church Leaders

The Survey of Church Leaders questionnaire collected data including personal demographics, church involvement, opinions about faith, church and conference strengths and challenges from each EMMC church leader including the senior pastor. We expected the 13-page questionnaire required from 30 minutes to an hour to complete. The survey targeted each of the 517 church leaders that were identified by the churches and published in the "2005 EMMC Directory of Churches". There is no suitable proxy for any of these leaders that happen to be unavailable and they will simply be classified as non-responding leaders. (see Figure 5b.)

2.3.3. Questionnaire Delivery Method

We considered several methods of questionnaire delivery including a webbased form, telephone interview, and mail-out survey. Some of the churches are located in remote areas which may not have reliable internet service; additionally, some leaders likely do not have the access to a computer or the skills to use a

³⁰ Dillman, Don A., Mail and Internet Surveys: The Tailored Design Method., Wiley, 2000, pp. 150-3.

Masters Project – E. Rempel

web-based form. Personal telephone interviews may improve response rates and potentially speed up the data collection process; however, we did not have the resources to hire interviewers or the time to train volunteers.

The leaders in Mexico and Belize were generally believed to be located in more remote areas and less familiar with the written English language. Most of The United States leaders were believed to be recent immigrants from Mexico and also less likely to be comfortable with the written English language. Therefore, we considered mixing two modes, with Canadians receiving a mail-out questionnaire and non-Canadian leaders receiving telephone interviews. That mixed mode, however, leaves significant potential for bias because people might respond differently to an interview question than to the same question on paper. Ultimately we choose a mail-out questionnaire for all leaders to be delivered via the senior pastor.

2.3.4. Survey Distribution, Follow-up and Data Entry

Each leader and pastor received a paper-clipped packet of survey documents beginning with the questionnaire covered with a self-addressed 9" x 12" return envelope. The envelope was pre-stamped for Canadian respondents while American, Mexican, and Belizean packets included an American dollar designated for postage. This was topped by a personalized explanation letter explaining the project, how the data would be used, and contact information for the Ethics Board, my supervisor, and myself. The letter also reminded them that participation was voluntary and that could simply return the blank questionnaire in the supplied envelop to exercise their choice to not participate. Research shows that including incentive such as cash helps increase response rates³¹. we included an American dollar in the US, Belize, Mexico return envelop to cover the cost of the return postage, while the Canadians received a pre-stamped envelope. This was judged to be unimportant in contrast to the bias of the language and cultural differences.

Judging that many of the leaders would be difficult to reach, especially in more remote areas, we decided to package both the pastor and leaders packets for each church together and courier them to the church rather than risk the questionnaires getting lost. A cover letter requested that the pastor distribute the packets to the other leaders in their church. Courier tracking and follow-up telephone calls to the churches confirmed their arrival – from within a week of the March 30th sending date in most cases but up to six weeks in Belize – and that the packets were distributed to the leaders.

We assigned a unique church identifier and leader identifier which were printed on each Survey of Senior Pastors and Survey of Church Leaders

³¹ Dillman, Don A., Mail and Internet Surveys: The Tailored Design Method, Wiley, 2000. p.198.

respectively to allow response tracking and linkage of church and leader level data. Since the study includes only 37 churches, a high response rate for the Survey of Senior Pastors is essential. To that end we employed several telephone follow-ups to remind pastors that we had not yet received their Survey of Senior Pastors. We had no cases where the pastor refused to participate either by returning a blank questionnaire or by refusal during the follow-up call. When called, all of the pastors indicated that they intended to return the completed questionnaire very shortly. Due to resource constraints we made no attempts to follow-up with any of the leaders when questionnaires were not returned expediently.

A team of volunteers immediately entered a returned survey data into a spreadsheet. Since the questionnaires were identified only by the unique identifier, the responses were anonymous while permitting the author to follow up with the pastors directly.

2.3.5. Ethical Considerations

Response data received via the questionnaires was considered confidential and anonymous. No names were entered into the survey database to protect the identity of the individuals. Confidentiality and privacy of individuals were further protected by publishing data in aggregate form only.

This study received approval from the McMaster University Research Ethics Board and a letter accompanying each questionnaire stated their support.

The research project was supported by the EMMC General Council. They appointed Jake Thiessen and Gin Thiessen as research advisors and committed \$1000 for office supplies, telephone calls, and similar expenses.

2.4. Linking of Data Sources

Each church and leader was assigned a unique identification number which facilitated linkage of the data sources and tracking of responses. These were attached to EMMC Records of church attendance and membership, national census demographics of church neighbourhoods and printed on both the Survey of Senior Pastors and the Survey of Church Leaders.

The list of church leaders from the EMMC office included the name, role and church. The role was utilized to identify the senior pastor of each church. We assigned a leader identification number to each leader on the list and linked it to the church.

2.5. EMMC Records

2.5.1. Overview of EMMC Growth Trends

The annual EMMC Records provides the attendance and membership of each church in the EMMC. The number of churches that had an attendance record for a given year was counted and the attendance and membership were summed for all churches in the EMMC. (See Figure 2.) Then we calculated the relative increase from the previous reporting year. In cases where the attendance is missing for one or more years, we calculated the annual compounding change rate assuming an constant rate of change.

There is no apparent cyclical component to the attendance and membership data to indicate a need for forecasting methods. Therefore, we employed a simple linear model to estimate the annual change in attendance. The high R^2 of 92% and the fact that no particular patterns in the residual plots were observed to indicate that the model is invalid. (See Figure 3.)

We also calculated the EMMC 1991 to 2001 relative change in attendance and membership and compared them to the relative change in affiliation with overall Christian, Catholic, Protestant, and Mennonite faith groups as compiled by the Canadian census³².

The outcome of interest is the most recent five-year relative change in average attendance and end-of-year membership in the EMMC churches. The calculation was trivial using the EMMC Records but the data definitions are uncertain. Since we have 2004 and 2005 attendance and membership from both the EMMC Records and the Survey of Senior Pastors, with precise definitions for the survey questions, we compared these to determine the validity of using the EMMC Records. In particular, for the churches that responded to both the EMMC Records request and our Survey of Senior Pastors for the outcome of interest, we compared the mean, median, and counted the number of churches where the survey was lower than EMMC Records, the number where the survey was equal to the EMMC Records, and the number where the survey higher than the EMMC records. Similar means and medians and a balance between those churches where the survey resulted in higher or lower than the EMMC Records would indicate the results were probably measuring the same outcome and we can assign the definitions from the survey to the EMMC Records.

We used the EMMC Records for calculation of 2000 and 2005 attendance and membership totals. In cases where the EMMC Records had missing data

³² Statistics Canada, 2001 Census: Analysis Series Religions in Canada, Catalogue No. 96F0030XIE2001015, Statistics Canada, 2003., p. 18

that were included in the Survey of Senior Pastors, we used the survey data. (See Figure 4.)

2.5.2. Grouping Churches by Region, Size, and Growth Status

For the purposes of this project, we grouped the 37 churches in three different ways. First, we followed the newly adopted regional grouping of EMMC churches into Southern Manitoba (8), Western Manitoba (3), Central Manitoba (5), Saskatchewan (6), Ontario (5), United States (4), Mexico (3), and Belize (3). This regionalization plan further grouped the three non-Canadian regions as one group. For our analysis we will consider them as separate groups.

We also desired to group the churches by size, that is, the number of adherents of a local group and no association with the church building. Arguably the attendance more precisely defines the adherents of the church than membership since it includes children and non-member adult adherents. The churches were also grouped by the attendance in 2000 as per EMMC records. Six churches are classified as new since they came into existence after 2000. The remaining 31 churches were divided into three groups alone arbitrarily cut lines. The fourteen churches with an attendance under 100 in 2000 were classified as small, the church with an attendance of 300 or over as large, and churches in between as medium. (See Table 4b.)

Church leaders debate whether it is more effective to plant churches or keep growing churches larger beyond a certain size³³. The EMMC has not taken a position in this debate. However, since we endeavoured not to penalize churches that send people to participate in church plants, we have attributed the attendance of new churches to their founding churches for the purposes of calculating church growth rates. Suppose, for instance, that a church was planted by two founding churches after 2000 and has an average attendance of 100 people in 2005. Each of these churches would be attributed with 50 additional people for calculating their five-year growth rates.

This grouping, again, has the same new grouping as above that comprises of the churches begun after 2000. The churches in existence before 2000 were grouped into three growth status groups. The churches which declined in average attendance were labelled declining.

Since the Canadian population increased by approximately one percentage point per year from 1991 to $2001 (9.8\%)^{34}$ it is conceivable that it was

³³ Schwartz, Christian A., Natural Church Development: A Guide to Eight Essential Qualities of Healthy Churches, 3rd ed., Carol Stream, IL: ChurchSmart Resources, 1998., p. 17.

³⁴ Statistics Canada, 2001 Census: analysis series Religions in Canada, Catalogue no. 97F0022XCB2001002, p. 18, Statistics Canada, 2003

similar from 2000 to 2005. We labelled churches that approximately maintained pace with the Canadian population growth, arbitrarily set at five percentage points on either side of the 5% Canadian population growth (0 to 10% increase), as maintaining. Churches whose attendance increased 10% or more from 2000 to 2005 were defined as growing.

2.6. National Censuses

2.6.1. Demographics of Church Neighbourhoods

The national census provided demographics including gender, ethnicity, language first learned, educational levels, age, and marital status. We obtained the median age and the percentage of the population who identified themselves as male, married, first speaking the official language, Caucasian race, born outside the country, and having obtained a university degree for the geographic neighbourhoods in which the churches are located. Then we modeled the relative change in 2000-2005 attendance by these neighbourhood demographics individually by univariate models.

2.7. Survey of Senior Pastors

2.7.1. Demographics of Senior Pastors

No demographic questions were included on the Survey of Senior Pastors questionnaire. Instead, we utilized the data from the demographic questions on the Survey of Church Leaders questionnaire corresponding to the appropriate pastor or alternate to develop the demographic profile of the senior pastor.

The profiles included age, gender, educational levels, marital status, ethnicity, language first learned, and country of birth. We obtained the median age and the percentage of responding church leaders who identified themselves as male, obtained a university degree, married, Mennonite race, speaking Plautdietsch, and born outside the country in which the church is located.

2.7.2. Examination of Membership Gains and Losses

The Survey of Senior Pastors asked a series of questions aimed at understanding the nature of membership gains and losses. We wish to understand the distribution of membership gains attributable to new church members compared to transfers from other Christian churches. Likewise church membership losses are attributable to transfer to other churches, death, and withdrawals or dismissal. The survey asked membership gains and losses by age group. For this analysis we simply summed the groups to obtain an overall number for each method of church membership entrance or exit. As a check, we compared the net gain to that of the difference between 2005 and 2004 end of year membership in the EMMC Records.

One phenomenon in Christian churches is the lure of people from one church to another neighbouring church. We differentiated between transfers to another local church from transfers to a church in a new neighbourhood, for example following a more. In the questionnaire we defined a local church as one that can be driven by car in 20 minutes or less while a distant church is more than 20 minutes away. The survey asked for these by age group to obtain the local and distant transfers.

Another phenomenon observed in Mennonite churches is the shift of attendees and members from traditional churches to less traditional churches. The questionnaire asked for the number of people who transferred their membership from or to their church to or from a list of other common Mennonite churches. We summed the transfers from or to the following traditional Mennonite churches: Old Colony, Reinlander, Sommerfelder, Kleine Gemeinde, and Bergthaler. Similarly, we summed the members that were transferred to or from these less traditional Mennonite churches: Mennonite Brethren, Brethren in Christ, and General Conference.

2.7.3. Church Initiatives to Promote Growth

We also examined four sets of church attributes for association with relative change in church attendance; the first included measures of church initiatives to encourage growth. The EMMC Records include which churches were involved in church plants since 2000. We simply identified which churches had contributed to church plants, selected one particular spiritual gifts assessment tool, conducted a Natural Church Development (NCD) evaluation in the last five years, have multiple worship services, allocated funds for staff and non-staff training, and spent money on physical relief in the community and local missionary outreach.

Our endeavour was to model the relative change in church attendance by these initiatives. Furthermore, we wanted to model the 5-year relative change in attendance by the eight quality factor and overall score of the Natural Church Development assessment tool.

2.7.4. Participation in Church Life

The Survey of Senior Pastors requested the total number of church attendees and the number that participated in several core church activities, namely, Sunday School, Bible Study, attendance of the annual membership meeting and made receipted gifts to the church. We divided the total number of participants by the total attendance of responding churches to obtain overall participation rates.

18

2.7.5. Church Facility and Financial Resources

The Survey of Senior Pastors asked whether the church owned their building, the amount of overall debt and the amount of capital expenditure debt. It also included the capacity of the worship spaces and the average attendance over the year. A common rule of thumb says that a church filled to over 80% capacity detours new people from participating. We simply calculated the percentage of average capacity and allocated them into groups reflecting over and under 80% capacity. Churches with multiple services would likely be over 100% capacity. The median donation per attendee (based on average weekly attendance) for EMMC churches was calculated at approximately \$1000 in 2005. Therefore, we arbitrarily assigned churches into those that donated more than \$1000 and those that donated less.

2.7.6. Church Organizational Structure

The Survey of Senior Pastors asked whether the church has one board or council that sets the direction of the church and whether board members have term limits. It also asked which of the membership, board or council, pastor, ministry team, or treasurer hires the senior pastor, approves the budget, and oversees non-senior pastor. From these variables we could conclude whether the board makes the decision to hire the senior pastor, the membership approves the budget, and the senior pastor oversees the non-senior pastors. We grouped each of these into corresponding dichotomous variables.

These factors are too numerous relative to the number of churches to be tested simultaneously, therefore, we tested univariate linear models for the fiveyear change in attendance by each of these factors. Factors with p-value less than 10% were tested in a multivariable generalized linear model, adjusted for church region and size grouping. Plots of residuals by normal quantiles were not evidence against the assumption that the residuals are normally distributed. (See Figure 6.)

2.8. Survey of Church Leaders

2.8.1. Demographics of Church Leaders

The Survey of Church Leaders asks a series of demographic questions including age, gender, educational levels, marital status, ethnicity, language first learned at home and still understood, and country of birth. From these we obtained the median age and the proportion of responding church leaders who identified themselves as male, having obtained a university degree, married, of Mennonite ethnic ancestry, first speaking Plautdietsch at home, born outside the country where they now live and the role in their church. We summarized the leader's primary role in the church as one of senior pastor, other pastor, board or council member, and other role. Then we produced a corresponding descriptive demographic profile of these church leaders by region, church, and growth status.

2.8.2. Compromises to Anabaptist Faith

In the absence of reliability tested questionnaire to assess the degree to which particular jobs and activities were opined to compromise their Anabaptist faith, we simply added the (0-4) scores indicating how much each would compromise their faith for eight occupations. The first occupation was ignored because the wording was misspelled and the responses were ambiguous. The remaining eight values were summed to obtain an approximately continuous normal distribution of scores measuring their rejection of employment avoided by early Anabaptists. The values with no missing values were modelled and tested for residual normality assumptions. (See Figure 7.)

We also asked, on the same scale, whether a Christian could participate in a series of activities and these were similarly summed to obtain scores measuring rejection of activities likely avoided by early Anabaptists. These were modelled in a manner similar to the above. (See Figure 8.)

2.8.3. Assistance from Conference churches

One of the objectives of regionalization of churches into closely linked groups was to share resources and offer mutual support. We endeavoured to make baseline measures of the assistance that is required by the churches and received from associated churches. Here the sum of the ten values represented the amount of assistance believed to be required by the respondents' church in ten areas. Correspondingly, we asked how much help the church had received in these areas and summed the scores. We modelled and tested both. (See 9 and 10.)

2.8.4. Expectation of future increases in Church Attendance

The Survey of Church Leaders questionnaire asked for the expected increase or decrease in average attendance in their church over the next five years. We modelled that outcome by leader demographics and church characteristics, church size grouping, and growth status. Like in the previous analysis, we used generalized estimating equations for this model with the normal distribution and the identity link function. An examination of the plot of residuals by normal quantiles shows that the assumption of normality is not justified. (See Figure 11.) Apparently, a couple of outlier responses of over 100% expected increase skewed the distribution. We repeated the model with these two points excluded and obtained reasonable results. (See Figure 12.) However, since both of these outliers belong to new churches – one each from Saskatchewan and Belize regions – we speculated that this may bias the data by underestimating the optimism of the new churches. Therefore, as a sensitivity

20

Masters Project - E. Rempel

analysis we truncated these two outliers at expected five-year increase in attendance of 100% and included them in the model. (See Figure 13.)

2.8.5. Generalized Estimating Equations Models

Since the leaders are clustered within churches, the generalized linear model does not adequately account for the correlation within the data structure. Generalized estimating equations were introduced (Liang and Zeger 1986)³⁵ to model data that could be modeled by the generalized linear model except for the correlation of data. These models, which permit the same distributions and link functions available for the generalized linear model, give ample options to model the following leader level outcomes. They depend on asymptotic distributions that require the number of clusters to be large.

Each of the five leader opinions described above, were modeled using Generalized Estimating Equations by the leader demographic variables detailed above adjusted for church region, size grouping, and growth status. These data were assumed to be related by an exchangeable correlation matrix. That is, the leader responses were assumed to be independent from those of leaders of other churches but correlated to those of other leaders in their own church. However, the models for the four score outcomes produced negative intra-church correlation estimates so we assumed independent correlation between all leaders.

The Language first spoken as a child and ethnicity were highly correlated so ethnicity was removed from all the models. For this analysis, age groups were grouped into thirds as follows: 1-36 years, 37-50 years, and 51 or greater.

2.8.6. Population Size Issues

Since there are only 37 churches in the four countries of interest, the study will survey the senior pastor of every church. Even so, we cannot conduct a Pearson's Chi-square test for differences in a contingency table. And we will need to test univariate models since we do not have the degrees of freedom to test many simultaneously.

We decided, a priori, that cases where all or the majority of the data were missing from a survey would disqualify its use. In cases where individual data were missing the case will simply be excluded from that particular table or model. Though there are various imputation techniques such as the EM Algorithm to utilize cases with missing data, the scope of this project is limited to using completed data.

³⁵ Stoles Maura E, et al. Categorical Data Analysis Using the SAS System, 2nd ed., Cary, NC, SAS Institute Inc., 2000. p. 471.

3. **RESULTS – Church Level Analysis**

3.1. EMMC Records of Attendance and Membership

3.1.1. Overview of EMMC Growth Trends

Membership and attendance data have been collected almost annually by the EMMC office since 1961 and 1968 respectively. (See Table 2.) Though an inspection of the data shows a trend of increasing attendance, membership, and number of churches, it also reveals periods of decline. (See Figure 2.) It is difficult to speculate on the nature of these fluctuations without additional data. Unexplained fluctuations in the attendance (and membership) of particular churches further underscore the need to use caution when using these data.

No annual church data except region and outcome variables attendance and membership were available so we simply modelled attendance by year to estimate the annual change in attendance. The, well-fitted ($R^2 > 92\%$) linear model, estimated an increased attendance of 93 people across the EMMC annually. Though we had expected church attendance to be correlated exponentially to year, a model with year squared did not improve the fit. The survey data are intended to identify factors that are associated with this increase.

Over the period of the Canadian census 1991-2001, attendance and membership of EMMC churches increased 24.7 and 27.0% respectively, modestly higher than that of the EMC (16.7% and 19%). (See Table 3.)

Though the number of Canadians affiliated with Christian churches has increased modestly and the affiliation with Mennonite churches in Canada has actually decreased in recent years, both membership and attendance at EMMC churches has increased several times the rate of the population growth (24.7% and 27.0% vs. 9.8%) from 1991 to 2001. (see Tables 1a and 3a.) Each of attendance, membership, and number of churches in the EMMC increased in the recent five-year period of primary interest as illustrated in the table. (See Table 3a.)

3.1.2. Grouping Churches by Region, Size, and Growth Status

Attendance aggregates exhibit vast disparities between regions from explosive growth in Mexico (82.9%) and the United State (78.9%) to modest increases in Ontario (18.0%) (despite losing a church in 2005), Central (17.0%) and Western Manitoba (32.7%), to decreases relative to the population growth in Saskatchewan (4.2%), Southern Manitoba (-6.4%) and Belize (-9.9%). The net decreased attendance observed in Belizean EMMC churches may be due to an anomaly in one church which had a dramatic spike in attendance in 2000, rising

by over 200 from 1999 and immediately dropping in 2001. (See Figures 4 and 5 and Tables 5abc.)

Substantial differences in relative change in attendance from 2000 to 2005 were observed between church size groupings. Despite two small churches becoming defunct since the year 2000, this grouping actually experienced a modest five-year increase (9.0%) in attendance. The greatest growth (14.2%) was experienced by churches in the medium size category while large churches actually declined (-3.0%) in attendance. (See Table 5b.)

The EMMC landscape had changed considerably since 2000, with two churches closing their doors and another withdrawing their association with the conference while six new churches were planted. When we examined the 31 EMMC churches existing in 2000 and still in existence in 2005 by growth status, the declining group lost a quarter (25.6%) of their attendance while the growing group increased by a third (32.5%).

3.2. National Censuses

3.2.1. Demographics of Church Neighbourhoods

Publicly available web-based searches of community profiles in all four of the countries of interest looked very promising. Each site facilitates the selection of demographic data for similar census regions (census subdivision, township, and municipality). Though the regions are defined similarly in each country, the population size included in such a region varies greatly even within a country. For example, in our search of census subdivisions in Canada, we could not search a sector of Winnipeg and ended with a church neighbourhood that included over 600,000 people while the town of Hague, Saskatchewan has a church neighbourhood with only 711 people.

The availability and quality of data varied greatly from country to country. (See Table 6.) The demographic variables available in the American fact finder are so selective that of the variables of interest only age, gender, and ethnicity are available. Canada only reports education levels by selected age groups so we cannot even calculate overall. The Latin American census databases are much more flexible; they include the entire slate of variables included in their census form and in raw frequency form instead of summaries. However, some variables in the Mexican database include out-of-range data or high amounts of missing values making them unreliable. Country of birth is not available in Belize or Mexico. Therefore, while the public census data are useful for investigating a particular region and even make some comparisons across regions, it does provide explanatory variables for models.

23

Regionalization is a pragmatic solution to the difficulties experienced by church leaders in connecting to peers across huge distances. The populations of the neighbourhoods in which a particular church is located are likely similar within a geographic region. We wish to understand the amount of similarity of the neighbourhoods between regions. Median age, percentage of population male, married, first spoken official language, white (including Mennonite), born in another country, adhere to Christianity and obtained university education. The table expresses the demographic variable of the median church in the region. (see Table 7.)

It demonstrates considerable variation in demographic attributes of church neighbourhoods between regions. For example, the Mennonite population in Belize is concentrated in a few communities and dominates the communities in which EMMC churches are located. In the municipality in which one of the Belizean churches is located, over 99% of the population identified themselves as Mennonite race³⁶. (Note that Belize was the only country in our study that identified Mennonite as a race.) Therefore, the demographics describing the church neighbourhood describes the Mennonite community in Belize. In particular, few (1%) residents of these municipalities first learned to speak the official language of Belize and despite the population being very young (median age 18 years) many (65%) were already married.

Since only two demographic variables were available from each national census, and education levels were difficult to compare, we built univariate models for each of the remaining demographic attributes. The percentage who were married (p=0.0278) and born outside country (p=0.0090) were significantly factors in predicting change in church attendance. However, the best use of this is descriptive; the models are suspect at best.

3.3. Survey of Senior Pastors

3.3.1. Response rates

We couriered the Survey of Senior Pastors to each of the 37 churches in the EMMC and received confirmation that it had been received. Thirty-three of the 37 (89%) churches returned a completed questionnaire and each region had a response rate of at least 75%. (See Table 9.)

3.3.2. Demographics of Senior Pastors

No demographic questions are included on the Survey of Senior Pastors questionnaire. The pastors also received a Survey of Church Leaders which had

³⁶ University de Costa Rica. www.censos.ccp.ucr.ac.cr, May 2006
a demographic section but of the 33 responders to the Surveys of Senior Pastors, 22 (20 pastors) also completed the Survey of Church leaders.

The median age is 44 years (q1-q3: 33-50), all are male, all but one is married, half are serving in a church outside of their birth country. (See Table 10.)

3.3.3. Comparison of the Survey of Senior Pastors with EMMC Records

In the EMMC records it is unclear what definitions church administration used to report their annual attendance and membership data. We tested whether the attendance and membership records are comparable to average attendance and end of year membership reported on the survey.

The survey had parallel results to EMMC records for 2005 membership (mean=166.9 (sd=186.4) vs. 165.3 (188.4) for the 24 churches that were reported in both sources. (See Table 11.) In fact, ten reported the same number while six reported a higher number in the EMMC record than the survey while eight did the converse. The comparison of 2005 attendance figures was not quite as close with the EMMC records adding a mean of seven (200.8 (179.4) vs. 194.1 (173.3)) more persons than the survey.

3.3.4. Examination of Membership Gains and Losses

Of the 398 people added to the membership of EMMC churches in 2005, 39% (155 people) were added through baptism. While the EMMC experienced considerable net gain (80 people) through transfers from traditional Mennonite churches, they also had a net gain of members from non-traditional Mennonite churches contrary to our hypothesis. (See Table 12a,b.)

Though EMMC records indicate that overall EMMC attendance dropped slightly from 2004 to 2005 (6,903 vs. 6,887), membership increased by 53 persons, (5,327 vs. 5,380) and by 104 persons (4,816 vs. 4,920) for the 33 churches responding to the survey. (See Table 2.) However, they reported a net gain of 238 persons. This may indicate that pastors have selective memory recall, preferring to remember people joining over those leaving their membership. EMMC gained a net of 88 people from other local churches similar to gains from churches.

3.3.5. Church Initiatives to Promote Growth

We sought to determine how many churches took particular initiatives to promote growth in their church. EMMC records tell us that only four churches actively participated in a church plant in the last five years, (2000-2005); The Survey of Senior Pastors revealed that only three conducted a Natural Church Development evaluation and only six have selected a particular spiritual gifts assessment tool. (See Table 13a.) We intended to investigate whether Natural Church Development assessment quality factors and overall scores were correlated with increased attendance. Surprisingly, only three churches have conducted the assessment in the last five years despite being promoted at the 2002 EMMC Convention. Because of this, we had insufficient data to do further analysis on this specific topic.

After observing that nine of the ten churches that had multiple worship services also had them for multiple language groups, each of them in English and Plautdietsch, we removed the latter from further analysis.

3.3.6. Participation in Church Life

As a proportion of average attendance in 2005, 54% attended Sunday school, 26% attended Bible study, 30% attended the last annual meeting and 42% received a donation receipt. (See Table 13b.)

3.3.7. Facility and Financial Resources

Most of the churches (91%) own the building in which the meet for worship and most (70%) have an average attendance of less than 80% of worship space. (See Table 13c.)

3.3.8. Organizational Structure

Of the churches responding to these organizational structure questions, 77% had one governing board, 59% had term limits for board members and had the senior pastor oversee other pastors employed by the church. (See Table 13d.)

3.3.9. Models

We modeled the relative change in attendance by the preceding factors from the Survey of Senior Pastors. The large number of explanatory variables compared to relatively few observations limited the analytical methods employed. All the effects significant at the 10% level in the univariate model together with region and church size groupings were modelled in a multivariate model. (See Table 14.) Only the United States region was significantly (estimate=1.05, 95% CI (0.53, -1.58), p=.029). Debt was significant univariate model was no longer significant in this model (estimate=0.0180, 95% CI (-0.33, 0.36), p=0.9248).

4. Results – Leader Level Analysis

4.1. Survey of Church Leaders

4.1.1. Response rates

All 517 leaders on the EMMC office list of church leaders should have received a Survey of Church Leaders questionnaire from their pastor or church office. Seventeen indicated their desire to decline the survey by returning the blank questionnaire. Almost half (251, 48.5%) of the leaders responded with a completed questionnaire. The response was distributed almost uniformly (40% to 59%) across regions except Western Manitoba where only 14% responded. (See Table 9.) We do not have descriptive data of leaders that chose not to respond the survey and cannot determine whether the respondents were representative of the sampled. Perhaps the respondents were younger, more educated, or less optimistic about their church.

4.1.2. Demographics of Church Leaders

The leaders had a median age (43 years), a third (33.5%) were women and a quarter (24.3%) had a university degree. Seven of eight (87.1%) identified themselves as descendents of Russian Mennonites and almost three quarters (70.9%) first learned to speak Plautdietsch. (See Table 10.)

The regional breakdown of leader demographics revealed some noteworthy contrasts. The median age of the responding leaders from Mexico was the youngest (25 years); from Saskatchewan the oldest (58) (See Table 15a.).

4.1.3. Jobs and Activities Compromising Anabaptist Faith

The jobs compromising faith scores measure the degree that the leader believes particular jobs would compromise their faith. In general (n/N=211/251) responding EMMC church leaders do not consider the occupations to compromise their faith extensively as evidenced by a mean score of 10.7 on the 32 point scale. However, scores vary widely (sd=7.2), with over 10% of the leaders (26/211) scoring 0 and one scoring the maximum (32).

When the effects of the leader demographics and church region, size group, and growth status were considered in a clustered model, those first speaking Plautdietsch (estimate=2.8, 95% CI (0.1, 5.3)) and university educated (3.3, (0.9, 5.7)) score significantly higher while senior pastors (-2.2, (-4.5, -0.1)) and leaders form Saskatchewan (-3.6, (-6.8, -0.4)) compared to Southern Manitoba scored lower than their comparator group. (See Table 17a.)

Overall, (n/N=208/251) responding EMMC church leaders do not consider the listed activities to compromise their faith extensively (mean=12.5, sd=7.0) though they expressed caution, the maximum score being 32 of 40 possible points.

When the effects of the leader demographics and church region, size group, and growth status were considered in a clustered model, those in age group 1-36 years (estimate=-4.4, 95% CI (-6.8, -1.9)) compared to those over age 50, and leaders form Saskatchewan (-4.2, (-7.4, -1.1)) compared to Southern Manitoba scores significantly lower while leaders that were university educated (2.1, (0.1, 4.1)), leaders form Belize (1.9, (0.3, 3.6)), Mexico (13.1, (9.3, 16.8)), compared to Southern Manitoba, leaders from churches with new attendance in the year 2000 (8.0, (5.3, 10.8)), and an average attendance of 1-99 (4.2, (2.1, 6.2)) compared to those in churches with an average attendance of 300 or more in 2000, scored significantly higher than their comparator group. (See Table 17b.)

4.1.4. Assistance from Conference churches

Overall, responding (n/N=185/251) EMMC leaders all the questions regarding their church needs in all ten areas (mean=16.0, sd=7.1), no leader demographic effects were significant when a clustered model adjusted for church region, size group, and growth status. However, leaders that were part of churches not yet in existence in 2000 (estimate=5.4, 95% CI (2.8, 8.0)), and an average attendance of 100-299 (3.3, (1.2, 5.5)) when compared to churches with an average attendance of 300 or more in 2000, scored significantly higher than their comparator group. No effects significantly lower than their comparator. (See Table 17c.)

Likewise, 68% (n/N=185/251) EMMC church leaders responded to all the questions regarding how much their church received assistance in all ten areas (mean=9.4, sd=7.0). When the effects of the leader demographics and church region, size group, and growth status were considered in a clustered model, those ages 1-36 (estimate=2.4, 95% CI (0.5, 4.3)) compared to those over age 50, first speaking Plautdietsch (2.0, (0.3, 3.6)) compared to those over age 50, leaders from churches with new attendance in the year 2000 (13.3, (9.9, 16.7)), and an average attendance of 1-99 (4.9, (2.7, 7.3)) compared to church with an average attendance of 300 or more in 2000, and leaders from churches whose growth stagnated (2.9, (0.4, 5.5)) compared to growing churches believed their churches to receive more assistance than the comparator groups. Conversely, leaders from Central Manitoba scored significantly lower (-2.5, (-5.0, -0.1)) than those from Southern Manitoba. (See Table 17d.)

4.1.5. Expectation of future increases in Church Attendance

Masters Project – E. Rempel

Over three quarters of EMMC leaders responded to the question of fiveyear change in attendance expected in their church (mean=18.4, sd=41.1). When we modelled this outcome by leader demographics and church region, size grouping, and growth status, we observed that the residuals were skewed by a couple of outlier observations.

Modelling the expected five-year increase in church attendance without the two outlying data points reveals that married leaders (estimate=5.5, 95% CI (0.7, 10.3)) compared to other and leaders from Mexico (56.5, (45.2, 67.9)) and Saskatchewan (26.4, (9.4, 43.5)) compared to Southern Manitoba, were significantly more optimistic than their comparator groups while non-senior Pastor were less optimistic (-6.2, (-12.0, -0.5)) with an intra-church correlation of 0.19. (See Table 17e.) The model based on all the data points but two values truncated to 100% (from 500 and 200), the yielded similar results. (See Table 17f.)

All analyses were done using SAS (version 9.1, SAS Institute Inc., Cary, NC). The proc glm was used to model non-clustered church level data, the genmod for generalized estimating equations.

29

5. DISCUSSION and CONCLUSION

5.1. Discussion

EMMC churches experienced a steady increase in attendance and membership due to growth and not reproduction of churches. This trend has seen the doubling of average membership per church in the last 30 years. (See Table 2.)

Increases in EMMC church attendance have exceeded affiliation with the Mennonite faith in Canada but examination reveals that this growth is almost entirely due to growth outside the EMMC heartland. (See Table 5a.) In fact, of the four regions making up the EMMC frontier, two have growth rates of 80%, Ontario had 18% despite one church withdrawing from the conference, and Belize had the only negative relative change (-9.9%). (See Table 5a.) An unexplained spike in 2000 attendance of at least 200 over 1999, followed by an immediate return in 2001, makes this reported loss suspect.

At first glance, one observes vast differences relative change in attendance by 2000 attendance groupings - small (less than 99, 9%), medium (100 to 299, 14.2%), and large (300+, -3%) churches. (See Table 5b.) On closer inspection, one observes that growing churches outnumber declining churches in every size grouping in the frontier regions and in none of the size groups in the heartland region. (See Table 5a.) This trend then may be a reflection of the size of churches in growing regions. Further study on this phenomenon is required before drawing conclusions regarding the optimal church size.

The attempt to create church neighbourhood demographic profiles based on national census data proved difficult. Vast differences in census neighbourhood sizes, inconsistent data definitions, and differences in data available made the best use of the data descriptive. A formal data request of demographic data for the church neighbourhoods may yield smaller geographic regions, more complete variables. (See Tables 6 and 7.)

The Survey of Senior Pastors consistent response rates from each region give confidence that the data represent the entire EMMC. (See Table 9.) EMMC churches rely heavily on transfers from other churches for their growth. Less than two in five additions were by baptism; perhaps half of these of people growing up in the church leaving one in five additions from the non-churched. (See Table 12a.) Masters Project – E. Rempel

Though we examined various factors for correlation with increased attendance, only debt free status was significant. (See Tables 14a-e.) Yet Schwartz claims that the quality factors measured by a standardized NCD assessment, reliably tested at over 80%)³⁷ correlate with growth. In fact, of the thousands of church assessed, all churches with all eight quality factor scores at least one standard deviation above the mean, were growing or maintaining. This assessment also gives assistance in strengthening these weak areas. Though the NCD has been promoted at an EMMC convention, only three churches have made the effort to examine their church health in this way. It would be prudent for church leaders that are concerned with their church health to assess their church health and work toward strength in their weak factors.

Almost half (48.5%) of the 517 leaders on the EMMC office list responded with a completed questionnaire. Of these 21 (8.4%) were senior pastors, 32 (12.8%) other pastors, and 84 (33.5%) board or council members. Also of revealing was that fully a third of identified leaders are women. (See Tables 10 and 15a-c.)

The scores to measure the perceived amount that particular jobs and activities would compromise their faith were higher for traditional leaders (first speaking Plautdietsch or from Mexican and Belizean) and lower in Saskatchewan. Surprisingly, for both jobs and activities university educated leaders hold to the more traditional view than those less educated. (See Table 17a-b.)

As expected leaders at new and small churches believe their churches required and received more assistance than those of large churches. Yet, the church assistance required score was substantially higher than the assistance received (mean 16.0 vs. 9.4). (See Table 16.) It is imperative for churches to actively share resources and experience to mutually support each other. This will be difficult in regions like the United States where "neighbouring" churches cover huge areas.

5.2. <u>Conclusion</u>

In spite of apparent robust growth in the EMMC, this growth is limited to the frontier regions. The demographics of the leaders indicate that outreach to other ethnic groups has not produced leaders yet. Further exploration is needed to determine the ethnicity of attendees and members of EMMC churches.

³⁷ Schalk, Christoph A. Organizational Diagnosis of Churches: The Statistical Development of the Natural Church Development Survey and its Relation to Organizational Psychology, Institute for Natural Church Development, Wurzburg, Germany, 1999, p.52

Further work is required to determine the factors that impact growth in EMMC churches. We made no attempt to evaluate the opinions as to which jobs and activities compromise. Further consultation with EMMC theologians will further direct research on this topic.

5.3. Limitations of the Study

The highlighted trends and characteristics of EMMC church growth, of this study are limited by various factors. First, the small sample size of 37 churches does not permit use of tests that depend on asymptotic distributions. We would have preferred to use the Pearson's chi square test for church level contingency table but very few cells contained more than five observations. Our generalized linear models included many potential covariates and relatively small sample of churches does not have enough degrees of freedom to test them simultaneously. Therefore, we were limited to univariate models.

The definitions of annual church attendance and membership may have varied by church or across time. It is difficult to detail precisely the definition used in data collection.

A study spanning multiple countries must be carefully designed to ensure that consistent definitions and processes are used. Many demographic variables have inconsistent definitions or display options between countries. Belize, for example, had several additional marital statuses than the other countries. The locus of attributes available differed as the United States has a very limited selection of clean data while Belize and Mexico had a wide set of variables but included dirty variables. Furthermore, not all the national censuses were conducted in the same year at the start of the study period. In all four countries, neighbourhood defined as the smallest region for which data were available, varied greatly between rural and urban regions. Ideally, a radius around each church would define the neighbourhood.

The survey is also challenged by the geographic diversity of the study area. Mexico requires communication in another language.

The distribution of the Survey of Church Leaders questionnaire depended on the actions of the senior pastor. Therefore, the response may have been biased as pastors less favourable to the study were less likely to encourage completion.

For leader level contingency tables the data are clustered by church which again invalidates the Pearson's chi square test.

Since association does not imply causation, we cannot determine precisely the factors that a church would implement to ensure growth. For example, maybe large churches have certain characteristics because they are large as opposed to characteristics causing increase in attendance or membership. Furthermore, ideally we would have collected factors from the beginning of the study period. Our period of interest is 2000 to 2005. The census data were from the beginning of that period while church and leader attributes were collected for 2005.

5.4. Expected Significance of Research

This study identifies the growth rate of EMMC churches and puts it into context. It examines characteristics of EMMC churches and leaders and identifies some of those that correlated to increased attendance. Since no research project has been conducted in the EMMC, the empirical knowledge gained will be unprecedented for the EMMC leadership as they set a direction for the conference. It also will prompt more research questions as church leaders interact with the data. It may prompt clarification of questions used to collect EMMC records of church attendance and membership.

33



Figure 1. Map of EMMC Churches



Masters Project - E. Rempel





35



Figure 3. Normal Q-Q Plot for Linear Model of Change in Attendance by Year

R²= 0.924770



Figure 4. Scatter plot of Percentage Change 2000-05 in Attendance by Church Size - Attendance in the Year 2000

37



Figure 5a. Dataflow: Survey of Senior Pastors

Figure 5b. Dataflow: Survey of Church Leaders







 $R^2 = 0.889430$

Figure 7. Q-Q Plot for Generalized Estimating Equations Model of Jobs Compromising Christian Faith Score by Leader Demographics and Church Region, Size, Growth Status Independent correlation matrix



Figure 8. Q-Q Plot for Generalized Estimating Equations Model of Activities Compromising Christian Faith Score by Leader Demographics and Church Region, Size, Growth Status



Independent correlation matrix

Figure 9. Q-Q Plot for Generalized Estimating Equations of Church Assistance Required by Leader Demographics and Church Region, Size, Growth Status Independent correlation matrix



Figure 10. Q-Q Plot for Generalized Estimating Equations of Church Assistance Received by Leader Demographics and Church Region, Size, Growth Status Independent correlation matrix



43

Figure 11. Q-Q Plot for Generalized Estimating Equations of Expectation of Increased Attendance by Leader Demographics and Church Region, Size, Growth Status

Exchangeable correlation matrix (all observations)



Figure 12. Q-Q Plot for Generalized Estimating Equations of Expectation of 5-Year Increased Attendance by Leader Demographics and Church Region, Size, Growth Status

Exchangeable correlation matrix (outliers > 100 excluded)



Figure 13. Q-Q Plot for Generalized Estimating Equations of Expectation of 5-Year Increased Attendance by Leader Demographics and Church Region, Size, Growth Status

Exchangeable correlation matrix (outliers > 100 truncated to 100)



	1991	2001	Relative
	Affiliation	Affiliation	Change
			1991 to 2001
Population	26,994,040	29,639,035	9.80%
Catholic	12,335,255	12,921,285	4.80%
Protestant	9,427,675	8,654,845	-8.20%
Adventist	52,360	62,880	20.10%
Anglican	2,188,110	2,035,500	-7.00%
Baptist	663,360	729,475	10.00%
Christian and Missionary Alliance	59,235	66,285	11.90%
Jehovah's Witnesses	168,370	154,750	-8.10%
Latter-day Saints (Mormons)	100,770	104,745	3.90%
Lutheran	636,210	606,595	-4.70%
Mennonite	207,970	191,470	-7.90%
Pentecostal	436,435	369,475	-15.30%
Presbyterian	636,295	409,830	-35.60%
Reformed Bodies	119,020	115,735	-2.80%
Salvation Army	112,345	87,790	-21.90%
United Church	3,093,120	2,839,125	-8.20%
Protestant, n.o.s.	628,945	549,205	-12.70%
Christian Orthodox	387,390	495,245	27.80%
Orthodox, n.i.e.	79,290	170,060	114.50%
Christian, n.i.e.	353,040	780,450	121.10%

Table 1a. Canadian Affiliation of Christian denominations with counts of 50,000 or more in 1991 and 2001

The Census includes self declared "affiliation" with a religious group. Statistics Canada groups Christian sub-groups into Catholic, Protestant, Christian Orthodox, and Christian not otherwise identified, irrespective as to how the Church leadership identifies their group.

Table 1b. Canadian Affiliation of selected Religions in 1991 and 2001

	1991 Affiliation	2001 Affiliation	Relative Change 1991 to 2001
All Christian	22,503,360	22,851,825	1.55%
Muslim	253,265	579,645	128.90%
Jewish	318,185	329,990	3.70%
Buddhist	163,415	300,345	83.80%
Hindu	157,010	297,200	89.30%
Sikh	147,440	278,415	88.80%
Eastern religions	26,325	37,545	42.60%
No religious affiliation	3,397,000	4,900,095	44.20%

	Annual EM	MMC Recor	ds	Mean Cl	nurch	Annual R	elative Cha	nge: %
Year	Churches	Attendance	Members	Att.	Members	Churches	Attendance	Members
1961	16		1,182		74			
1962	16		1,187		74	0.0%		0.4%
1963						9.8%		4.9%
1964						9.8%		4.9%
1965						9.8%		4.9%
1966						9.8%		4.9%
1967						9.8%		4.9%
1968	28	3,178	1,585	114	57	9.8%		4.9%
1969	27	3,425	1,697	127	63	-3.6%	7.8%	7.1%
1970	26		1,747		67	-3.7%	2.3%	2.9%
1971				-		-1.3%	2.3%	3.9%
1972						-1.3%	2.3%	3.9%
1973	25		1,957		78	-1.3%	2.3%	3.9%
1974						5.8%	2.3%	3.6%
1975	28		2,099		75	5.8%	2.3%	3.6%
1976	27		2,261		84	-3.6%	2.3%	7.7%
1977	27	4,108	2,373	152	88	0.0%	2.3%	5.0%
1978			1			-3.8%	-3.1%	0.6%
1979	25	3,860	2,402	154	96	-3.8%	-3.1%	0.6%
1980	25	3,992	2,427	160	97	0.0%	3.4%	1.0%
1981	25	4,107	2,475	164	99	0.0%	2.9%	2.0%
1982	26	4,199	2,629	162	101	4.0%	2.2%	6.2%
1983	26	4,306	2,723	166	105	0.0%	2.5%	3.6%
1984	27	4,459	3,004	165	111	3.8%	3.6%	10.3%
1985	27	4,552	3,112	169	115	0.0%	2.1%	3.6%
1986	30	4,780	3,131	159	104	11.1%	5.0%	0.6%
1987	30	4,972	3,204	166	107	0.0%	4.0%	2.3%
1988	31	5,076	3,320	164	107	3.3%	2.1%	3.6%
1989	33	4,973	3,509	151	106	6.5%	-2.0%	5.7%
1990	34	5,014	3,592	147	106	3.0%	0.8%	2.4%
1991	33	4,940	3,718	150	113	-2.9%	-1.5%	3.5%
1992	32	4,846	3,750	151	, 117	-3.0%	-1.9%	0.9%
1993	32	5,103	3,614	159	113	0.0%	5.3%	-3.6%
1994	30	4,908	3,762	164	125	-6.3%	-3.8%	4.1%
1995	30	5,103	3,912	170	130	0.0%	4.0%	4.0%
1996	32	5,330	4,008	167	125	6.7%	4.4%	2.5%
1997	32	5,496	4,160	172	130	0.0%	3.1%	3.8%
1998	32	5,460	4,302	171	134	0.0%	-0.7%	3.4%
1999	33	5,647	4,307	171	131	3.1%	3.4%	0.1%
2000	34	6,105	4,476	180	132	3.0%	8.1%	3.9%
2001	35	6,276	4,635	179	132	2.9%	2.8%	3.6%
2002	36	6,392	4,797	178	133	2.9%	1.8%	3.5%
2003	36	6,470	5,019	180	139	0.0%	1.2%	4.6%
2004	37	6,903	5,327	187	144	2.8%	6.7%	6.1%
2005	37	6,887	5,380	186	145	0.0%	-0.2%	1.0%

Table 2. Annual Attendance and Membership in EMMC Churches

Table 3a. Change in EMMC and EMC Attendance, Membership, and Number of Churches, 1991 to 2001

		Relative	
1991	2001	Change(%)	
4,940	6,276	27.0%	
3,718	4,635	24.7%	
33	35	6.1%	
	1991 4,940 3,718 33	199120014,9406,2763,7184,6353335	

			Relative
EMC	1991	2001	Change(%)
Attendance*	5,888	6,961	23.3% *
Membership	6,233	7,293	17.0%
Churches	50	44	-12.0%

*EMC attendance counts are for 1993 and 2001 (the year they began recording attendance)

The relative change in EMC attendance was extrapolated to ten years.

Table 3b. Change in EMMC Attendance, Membershipand Number of Churches, 2000 to 2005

			Relative
	2000	2005	Change(%)
Attendance	6,105	6,887	12.8%
Membership	4,476	5,380	20.2%
Churches	34	37	8.8%

-			Size	£		Growth Status Groups			
Region	Total	Small [1-99]	Medium [100-299]	Large [300+]	New	Declining (-, 0%)	Maintaining [0-10%)	Growing [10%, +)	New
MB-S	8	3	2	3		3	3	2	
MB-W	3	1	1		1	1		1	1
MB-C	5	2	3				2	3	
SK	6	3	2		1	4	1		1
Heartland	22	9	8	3	2	8	6	6	2
								a	
ON	5	2	2	1		1		4	
MX	3	2			1	1		1	1
BE	3		1	1	1	1		1	1
US	4	1	_	1	2			2	2
Frontier	15	5	3	3	4	3	0	8	4
TOTAL	37	14	11	6	6	11	6	14	6

Table 4a. Number of Churches in Region by Size, and Growth Status

Table 4b. Number of Churches in Heartland and Frontier by Size and Growth Status Groups

4 (1) (3)		EMM	EMMC Heartland (MB, SK)				EMMC Frontier (ON,US,		
		Declining	Maintaining	Growing	New	Declining	Maintaining	Growing	New
Region	Total	(-, 0)	[0-10)	[10, +)		(-, 0)	[0-10)	[10, +)	
New	6				2				4
Small	14	4	1	4		2	. 0	3	
[1-99]							1		
Medium	11	3	4	1		1	0	2	
[100-299]						,			
Large	6	1	1	1		1	0	2	
[300,∞)									
TOTAL	37	8	6	6	2	4	0	7	4

*Heartland - geographic region where Mennonites first settled from Russia *Frontier - geographic regions where Russia Mennonites moved to from Heartland

Regional Groupings	Churches 2000	Churches 2005	Attendance 2000	Attendance 2005	Relative Growth (%)
Southern Manitoba	8	8	2,139	2,002	-6.4%
Western Manitoba	2	3	245	325	32.7%
Central Manitoba	6	5	755	883	17.0%
Saskatchewan	6	6	529	551	4.2%
EMMC Heartland	22	22	3,668	3,761	2.5%
Ontario	6	5	1,053	1,243	18.0%
Mexico	2	4	158	289	82.9%
Belize	2	3	675	608	-9.9%
United States	2	3	551	986	78.9%
EMMC Frontier	12	15	2,437	3,126	28.3%
OVERALL	34	37	6,105	6,887	12.8%

Table 5a. 2000 to 2005 Relative Change in Attendance of EMMC Churches by Region

Table 5b. 2000 to 2005 Relative Change in Attendance of EMMC Churches byChurch Size Groupings

Size Grouping (by year 2000 attendants)	Churches 2000	Churches 2005	Attendance 2000	Attendance 2005	Relative Growth (%)
New (after 2000)	0	6	0	480	
Small [1-99]	16	14	1,096	1,195	9.0%
Medium [100-299]	12	11	2,054	2,345	14.2%
Large [300-∞)	6	6	2,955	2,867	-3.0%
OVERALL	34	37	6,105	6,887	12.8%

Table 5c. 2000 to 2005 Relative Change in Attendance of EMMC Churches by Church Growth Status

Growth Status	Churches 2000	Churches 2005	Attendance 2000	Attendance 2005	Growth (%)
Defunct (since 2000)	3		160		
New (after 2000)	0	6	0	480	
Declining $(-\infty, 0)$	11	11	1,844	1,372	-25.6%
Maintaining [0,10%)	6	6	1,244	1,250	0.5%
Growing [10%,∞)	14	14	2,857	3,785	32.5%
OVERALL	34	37	6,105	6,887	12.8%

	No.		United		
	Churches	Canada	States	Mexico	Belize
Age *: median (years)	37	yes	yes	yes	yes
% Male	37	yes	yes	yes	yes
% Married *****	33	yes	no	yes	yes
% First spoke official language **	30	yes	no	dirty	yes
% White ****	34	yes	yes	dirty	yes
% Born outside country ***	27	yes	no	no	no
% Christian	33	yes	no	yes	yes
% University education*	6	no	no	yes	yes
% University education age 20-34	27	yes	no	no	no
% University education age 35-44	27	yes	no	no	no
% University education age 45-64	27	yes	no	no	no

Table 6. Availability of Demographic Data from National Census Web Database

** Canada and Belize include population speaking official language

*** Canada and Belize include foreign born

**** Canada, USA, Belize race

***** Canada, Mexico, and Belize have Marital Status

								Univ	/ersity	Educa	ition
	(seation) (sedian)	% Male	% Married	⊗ Official گ Language	% White	<pre>% Foreign % Born</pre>	& Christian	% Overall	% age 20-34	% age 35-44	% age 45-64
No. Churches	37	37	33	30	34	27	33	6	27	27	27
S Manitoba	35.7	48	62	50	98	16	96		10	12	10
W Manitoba	36.6	47	58	80	89	6	84		13	18	13
C. Manitoba	37.3	48	58	67	78	14	87		15	24	15
Saskatchewan	33.9	48	61	77	87	4	82		9	8	9
Ontario	37.2	48	54	84	96	18	89		10	9	10
Mexico	20.0	49	51				95	1			
Belize	18.0	51	65	1	92		94	6			
United States	32.5	47			79						
OVERALL	34.3	48.7	60.2	68.5	95.7	13.2	89.8	5.0	11.5	10.0	11.9

Table 7. Medians of Church Neighbourhoods Demographics

* Canadian education has age groupings but not overall, Belize, Mexico have overall **Canada and Belize include population speaking official language

*** Canada and Belize include foreign born

**** Canada, USA, Belize race

***** Canada, Mexico, and Belize have Marital Status

Table 8. Univariate Linear Models of % Increase in 2000 to 2005 Attenda	ance by
Church Neighbourhoods Demographics	

	NO.	
Demographic Factors	Churches	Estimate (95% CI), p-value
Age: median (years)	37	-0.0026 (-0.02, 0.02), 0.8062
% Male	37	-1.1041 (-10.41, 8.21), 0.8161
% Married	33	-1.4865 (-2.74, -0.23), 0.0278
% First spoke official language	30	-0.5020 (-0.96, -0.04), 0.8264
% White	34	-1.0938 (-2.29, 0.10), 0.0848
% Born outside country	27	1.1592 (0.36, 1.96), 0.0090
% Christian	33	-1.1337 (-2.32, 0.06), 0.0726

* Canadian census has age groupings but not overall, Belize, Mexico have overall

** Canada and Belize include population speaking official language

*** Canada and Belize include foreign born

**** Canada, USA, Belize race

***** Canada, Mexico, Belize Marital Status

Region	Pastors Response	Leaders Response
	No (%)	No (%)
SMB	6/8 (75)	68/136 (50)
W MB	3/3 (100)	6/42 (14)
C MB	4/5 (80)	50/92 (54)
SK	6/6 (100)	31/66 (47)
ON	4/5 (80)	48/82 (59)
Mexico	3/3 (100)	4/10 (40)
Belize	3/3 (100)	18/40 (45)
USA	4/4 (100)	26/49 (53)
TOTAL	33/37 (89.2)	251/517 (48.5)

Table 9. Completed Responses of Surveys to Senior Pastors andChurch Leaders by Region

Variable	Pastors No (%)	Leaders No (%)
Age: years (med, p25-p75)	22 (44, 33-50)	249 (43, 33-55)
Male: (%)	22/22 (100)	167/251 (66.5)
Married: (%)	21/22 (95)	229/251 (91.2)
Plautdietsch: (%)	14/22 (64)	178/251 (70.9)
Mennonite Ancestry: (%)	18/22 (82)	217/249 (87.1)
Born in Foreign Country: (%)	12/22 (55)	80/251 (31.9)
University Degree: (%)	12/22 (55)	60/251 (24.3)
Role		
Senior Pastor	20/22 (91)	21/251 (8.4)
Other Pastor	0/22 (0)	32/251 (12.8)
Board/council member	2/22 (9)	84/251 (33.5)
Other	0/22 (0)	114/251 (45.4)

Table 10. Demographics of Pastors and Leaders Responding to the Surveys

		2004			2005		
		No. Churches	EMMC Records	Surveys of Senior Pastors	No. Churches	EMMC Records	Surveys of Senior Pastors
Attendance	Mean * (sd) No. Higher ⁺	27 27	208.7 (192.0) 17	193.8 (179.9) 2	29 29	200.8 (179.4) 12	194.1 (173.3) 6
Membership	Mean * (sd) No. Higher ⁺	25 25	170.9 (195.7) 12	168.2 (194.3) 1	24 24	165.3 (188.4) 6	166.9 (186.4) 8

Table 11. Church Attendance and Membership 2004 and 2005 Comparison of EMMC Records and Survey Responses

* Mean of EMMC Churches

⁺ Number of Churches with higher response than the other source

	Gains	Losses	Net
	People (%)	People (%)	People (%)
Baptism:	155 (39)	0 (0)	155 (65)
Transfer	243 (61)	61 (38)	182 (76)
Death		33 (21)	
Withdrawal/Dismissal		66 (41)	
TOTAL	398 (100)	160 (100)	238 (100)

Table 12a. Gains or Losses of EMMC Memberships in Calendar year 2005

Table 12b. Transfers of EMMC Memberships in Calendar year 2005

	Gains	Losses	Net
	People (%)	People (%)	People (%)
Transfer from/to local	110 (45)	22 (36)	88 (48)
Transfer from/to distant	133 (55)	39 (64)	94 (52)
Other EMMC	27 (11)	19 (31)	8 (4)
EMC	15 (6)	2 (3)	13 (7)
Traditional Mennonite	86 (35)	6 (10)	80 (44)
Non-traditional Mennonite	15 (6)	8 (13)	7 (4)
TOTAL	243 (100)	61 (100)	182 (100)

Table 13a. Church Initiatives to Promote Growth

	Cnurcnes
Church Initiative	No. (%)
Church Plant in last 5 years	4/37 (11)
Selected ONE particular Spiritual gifts assessment tool	6/29 (21)
Conducted a Natural Church Development evaluation	3/31 (10)
Multiple Worship Services	10/33 (30)
Worship Services to muliple cultures or language groups	9/33 (27)
Staff training in expense budget	15/25 (60)
Non-staff training in budget	11/25 (44)
Donations to community relief	13/27 (48)
Donations to local outreach	18/27 (67)

Table 13b. Attendee Participation in Church Life

	No.	Attendees
	Churches	No. (%)
Attend Sunday school	30	2664/4911 (54.2)
Attend Bible study	28	1228/4720 (26.0)
Attend annual meeting	32	1725/5848 (29.5)
Received a donation receipt	21	1583/3682 (42.0)

Table 13c. Church Facility and Financial Resources

Resources	No. (%)		
Own Building	30/33 (91)		
Worship space less than 80% full	21/30 (70)		
Debt Free	20/28 (71)		
Non-captial Debt Free	29/30 (97)		

Table 13d. Church Organizational Structure

Organizational Structure Decisions	Churches No. (%)	
One board that sets direction of church	24/31 (77)	
Board members have term limits	19/32 (59)	
Board hires the senior pastor	15/32 (47)	
Membership approves the budget.	25/31 (81)	
Pastor Oversees non-senior pastors	13/22 (59)	

Table 14a. Univariate Linear Models of % Increase in Attendance 2000-2005			
by Church Initiatives to Promote Grow		wth	
Initiative: yes vs. no		NO.	Estimate (95% CI), p-value
Church Plant in last 5 years		31	0.1028 (-0.30, 0.51), 0.6228
Selected ONE Spiritual gifts assessment		23	-0.1649 (-0.47, 0.14), 0.3083
Natural Church Development evaluation		25	-0.0766 (-0.58, 0.43), 0.7702
Multiple Worship Services		27	0.2603 (-0.06, 0.58), 0.1231
Staff training in expense budget		21	0.0907 (-0.28, 0.46), 0.6400
Non-staff training in budget		21	0.2309 (-0.12, 0.59), 0.2171
Donations to community relief		21	0.2210 (-0.03, 0.48), 0.1070
Donations to local outreach		21	-0.1446 (-0.44, 0.15), 0.3512
Table 14b. Univariate Linear Models of % Increase in Attendance 2000-2005			
by Participation in Church Life			
Participation: Proportion of Attendees		No.	Estimate (95% CI), p-value
Attend Sunday school		24	-0.3867 (-1.35, 0.58), 0.4421
Attend Bible study		22	0.2692 (-0.80, 1.34), 0.6285
Attend annual meeting		26	-0.2689 (-1.58, 1.04), 0.6915
Received a donation receipt		14	-2.2368 (-2.47, -2.00), 0.0717
Table 14c. Univariate Linear Models of % Increase in Attendance 2000-2005			
by Facility and Finan	cial Resources	No	Estimate (RE% CI) in value
Resources: yes vs. no	comparator	NO.	
Own Building		27	0.0889 (-0.50, 0.67), 0.7679
Worship space less than 80% full		24	0.1320 (-0.14, 0.40), 0.3448
Debt Free		22	0.3310 (0.07, 0.59), 0.0204
Non-captial Debt Free		24	0.1798 (-0.48, 0.84), 0.5987
Table14d. Univariate Linear Models of % Increase in Attendance 2000-2005			
by Organizational Structure		No	Estimate (95% CI) n-value
One board that sets direction of church		26	0.1274 (0.22, 0.40) 0.4530
Board members have term limits		20	0.1374 (-0.22, 0.43), 0.4330 0.1861 (-0.14, 0.51), 0.2720
Board hires the senior pastor		20	0.1001(-0.14, 0.01), 0.2720
Membership approves the budget		26	-0.0524 (-0.54 0.43) 0.8340
Pastor Oversees non-senior nastors		18	-1.6712(-2.03, -1.32) 0.3690
able 14e. Multivariate Linear Models of % Increase in Attendance 2000-2005			
of Previous Factors	Comparator	No.	Estimate (95% CI), p-value
Received a donation receipt: prop	ortion of attende	14	-0.0480 (-0.28, 0.19), 0.7158
Debt Free: yes vs. no		14	0.0180 (-0.33, 0.36), 0.9248
Region USA	S. Manitoba	14	1.0515 (0.53, 1.58), 0.0293
Region Mexico	S. Manitoba	14	0.0453 (-0.43, 0.52), 0.8646
Region Ontario	S. Manitoba	14	0.2059 (-0.14, 0.55). 0.3273
Region Saskatchewan	S. Manitoba	14	-0.1905 (-0.65, 0.27). 0.4747
Region Central Manitoba	S. Manitoba	14	-0.2073 (-0.80, 0.38). 0.5416
Region Western Manitoba	S. Manitoba	14	-0.4230 (-1.01, 0.16). 0.2530
Church Size: Small [1-99]	Large [300+)	14	0.0754 (-0.27, 0.42), 0.6987
Church Size: Medium [100-299]	Large [300+)	14	0 2140 (-0 19, 0 62) 0 3792
	_a.go [000.)		0.2110 (0.10, 0.02), 0.0102

*(univariate p-value<0.1) **R²=0.88943
Table 15a. Leader Demographics by Region

Region	No	Age No (med, Q1-Q3)	Male No (%)	Married No (%)	Plautdietsch Language No (%)	Mennonite Ethnicity No (%)	Foreign Born No (%)	University Education No (%)
S. MB	68	67 (52, 44-58)	51/68 (75)	65/68 (96)	48/68 (71)	62/68 (91)	7/68 (10)	19/68 (28)
W. MB	6	6 (41, 33-53)	4/6 (67)	6/6 (100)	3/6 (50)	6/6 (100)	0/6 (0)	3/6 (50)
C. MB	50	49 (51, 33-57)	28/50 (56)	42/50 (84)	32/50 (64)	43/49 (88)	2/50 (4)	23/50 (46)
SK/AB	31	31 (58, 38-65)	16/31 (52)	27/31 (87)	9/31 (29)	19/30 (63)	6/31 (19)	7/31 (23)
ON	48	48 (37, 33-46)	30/48 (63)	44/48 (92)	41/48 (85)	44/48 (92)	36/48 (75)	6/48 (13)
MX	4	4 (25, 21-30)	2/4 (50)	1/4 (25)	4/4 (100)	4/4 (100)	1/4 (25)	0/4 (0)
BE	18	18 (39, 34-41)	15/18 (83)	18/18 (100)	18/18 (100)	18/18 (100)	5/18 (28)	1/18 (6)
US	26	26 (34, 29-42)	21/26 (81)	26/26 (100)	23/26 (88)	21/26 (81)	23/26 (88)	2/26 (8)
OVERALL	251	249 (43, 33-55)	167/251 (665)	229/251 (912)	178/251 (709)	217/249 (871)	80/251 (319)	61/251 (243)

Table 15b. Leader Demographics by Average Attendance 2000

Size	No	Age No (med, Q1-Q3)	Male No (%)	Married No (%)	Plautdietsch Language No (%)	Mennonite Ethnicity No (%)	Foreign Born No (%)	University Education No (%)
New	15	15 (33, 26-47)	13/15 (87)	15/15 (100)	11/15 (73)	12/15 (80)	10/15 (67)	4/15 (27)
Small [1-99]	67	67 (38, 31-50)	39/67 (58)	56/67 (84)	43/67 (64)	56/67 (84)	22/67 (33)	10/67 (15)
Medium [100-299]	84	83 (47, 36-57)	53/84 (63)	77/84 (92)	57/84 (68)	70/82 (85)	18/84 (21)	27/84 (32)
Large [300-)	85	84 (44, 37-55)	63/85 (74)	81/85 (95)	67/85 (79)	79/85 (93)	30/85 (35)	20/85 (24)
OVERALL	251	249 (43, 33-55)	167/251 (665)	229/251 (912)	178/251 (709)	217/249 (871)	80/251 (319)	61/251 (243)

Table 15c. Leader Demographics by Growth Status 2000-2005

Status	No	Age No (med, Q1-Q3)	Male No (%)	Married No (%)	Plautdietsch Language No (%)	Mennonite Ethnicity No (%)	Foreign Born No (%)	University Education No (%)
New	15	15 (33, 26-47)	13/15 (87)	15/15 (100)	11/15 (73)	12/15 (80)	10/15 (67)	4/15 (27)
Declining	60	60 (43, 33-51)	38/60 (63)	54/60 (90)	38/60 (63)	52/60 (87)	8/60 (13)	9/60 (15)
Maintaining	65	64 (52, 42-60)	42/65 (65)	51/65 (78)	38/65 (58)	51/63 (81)	7/65 (11)	23/65 (35)
Growing	111	110 (41, 33-52)	74/111 (67)	101/111 (91)	91/111 (82)	102/111 (92)	55/111 (50)	25/111 (23)
OVERALL	251	249 (43, 33-55)	167/251 (665)	229/251 (912)	178/251 (709)	217/249 (871)	80/251 (319)	61/251 (243)

Med=Median, Q1=first quartile, Q3=third quartile

	Leaders Opinions	No	Q1	Med	Q3
Faith Compromise	Jobs score: 0-32	211	5	11	16
	Activities score: 0-40	208	7	12	18
Church Assistance	Requires score: 0-40	185	11	16	21
	Receives score: 0-40	170	4	10	14
Expected Growth	5-year attendance change: %	194	5	10	20

Table 16. Descriptive Statistics of Leader Opinions about Faith Compromises, Church Assistance and Expected Growth (%)

Table 17a.	Generalized Estimating Equations of Jobs Comproming Faith
	Scores by Leader Demographics and Church Region, Size and
	Growth Status: n=209, Independent correlation matrix

Variable	Compararor	Estimate (95% CI), p-value
Age 1-36	51+	0.6550 (-1.54, 2.85), 0.5591
Age 37-50	51+	-0.2279 (-1.72, 1.27), 0.7650
Gender	Male	-0.8506 (-2.62, 0.92), 0.3466
Married	Married	1.2799 (-1.68, 4.24), 0.3974
Plautdietsch	Plautdietsch	2.7099 (0.14, 5.28), 0.0387
Foreign Born	Foreign Born	1.1396 (-1.86, 4.14), 0.4559
University degree	University degree	3.2894 (0.89, 5.68), 0.0071
Role: Sr. Pastor	Other	-2.2826 (-4.49, -0.07), 0.0430
Role: Pastor	Other	-1.7561 (-4.52, 1.01), 0.2137
Role: Board	Other	0.1100 (-2.06, 2.28), 0.9209
Region: USA	Southern Manitoba	-1.5425 (-8.03, 4.95), 0.6414
Region: Belize	Southern Manitoba	-1.0691 (-3.47, 1.33), 0.3834
Region: Mexico	Southern Manitoba	-1.3489 (-6.02, 3.32), 0.5715
Region: ON	Southern Manitoba	1.1432 (-1.60, 3.89), 0.4140
Region: SK	Southern Manitoba	-3.5886 (-6.81, -0.37), 0.0288
Region: C MB	Southern Manitoba	1.0027 (-1.53, 3.53), 0.4370
Region: W MB	Southern Manitoba	-4.6121 (-12.38, 3.16), 0.2448
New	Large (300+)	2.2321 (-3.76, 8.22), 0.4652
Small [1-99]	Large [300+)	-0.5850 (-4.29, 3.12), 0.7568
Medium [100-299]	Large [300+)	-0.0994 (-2.29, 2.09), 0.9292
Declining (- ,0)	Growing [10%+)	1.3818 (-1.00, 3.77), 0.2563
Stagnant [0-10%)	Growing [10%+)	-0.5850 (-4.29, 3.12), 0.7568

Table 17b.	Generalized Estimating Equations of Activities Comproming Faith
	Scores by Leader Demographics and Church Region, Size and
	Growth Status: n=207, Independent correlation matrix

Variable	Compararor	Estimate (95% CI), p-value
Age 1-36	51+	-4.3505 (-6.79, -1.91), 0.0005
Age 37-50	51+	-0.7339 (-2.94, 1.47), 0.5140
Gender	Male	0.6128 (-0.78, 2.01), 0.3903
Married	Married	-1.0142 (-3.94, 1.91), 0.4973
Plautdietsch	Plautdietsch	1.8020 (-0.47, 4.08), 0.1204
Foreign Born	Foreign Born	-1.9280 (-4.25, 0.39), 0.1037
University degree	University degree	2.0902 (0.08, 4.10), 0.0418
Role: Sr. Pastor	Other	0.9544 (-1.73, 3.64), 0.4859
Role: Pastor	Other	2.7566 (-0.23, 5.75), 0.0708
Role: Board	Other	0.8594 (-1.42, 3.14), 0.4608
Region: USA	Southern Manitoba	1.3189 (-1.10, 3.74), 0.2853
Region: Belize	Southern Manitoba	1.9316 (0.29, 3.57), 0.0208
Region: Mexico	Southern Manitoba	13.0682 (9.32, 16.81), <.0001
Region: ON	Southern Manitoba	0.2156 (-2.47, 2.90), 0.8749
Region: SK	Southern Manitoba	-4.2274 (-7.40, -1.06), 0.0090
Region: C MB	Southern Manitoba	-1.4707 (-4.27, 1.33), 0.3033
Region: W MB	Southern Manitoba	-7.4118 (-11.40, -3.42), 0.0003
New	Large [300+)	8.0448 (5.33, 10.76), <.0001
Small [1-99]	Large [300+)	4.1670 (2.10, 6.23), <.0001
Medium [100-299]	Large [300+)	1.6018 (-0.25, 3.45), 0.0902
Declining (-,0)	Growing [10%+)	1.1232 (-0.66, 2.91), 0.2169
Stagnant [0-10%)	Growing [10%+)	1.8342 (-0.63, 4.29), 0.1438

Table 17c.	Generalized Estimating Equations of Church Requirng Assistance
	Scores by Leader Demographics and Church Region, Size and
	Growth Status: n=183, Independent correlation matrix

Variable	Compararor	Estimate (95% CI), p-value
Age 1-36	51+	0.7680 (-2.26, 3.80), 0.6191
Age 37-50	51+	-0.4814 (-3.01, 2.05), 0.7095
Gender	Male	-0.0444 (-2.45, 2.36), 0.9711
Married	Married	-2.6108 (-5.59, 0.37), 0.0864
Plautdietsch	Plautdietsch	-0.1090 (-2.54, 2.32), 0.9299
Foreign Born	Foreign Born	-0.7528 (-2.60, 1.09), 0.4232
University degree	University degree	2.0922 (-0.68, 4.86), 0.1385
Role: Sr. Pastor	Other	2.6517 (-0.83, 6.13), 0.1354
Role: Pastor	Other	-0.1621 (-2.54, 2.24), 0.8948
Role: Board	Other	0.0438 (-1.79, 1.88), 0.9627
Region: USA	Southern Manitoba	4.6151 (1.46, 7.77), 0.0042
Region: Belize	Southern Manitoba	1.9872 (-0.45, 4.43), 0.1103
Region: Mexico	Southern Manitoba	-3.2309 (-7.97, 1.51), 0.1814
Region: ON	Southern Manitoba	3.3133 (-0.29, 6.92), 0.0711
Region: SK	Southern Manitoba	-0.5229 (-3.19, 2.14), 0.7007
Region: C MB	Southern Manitoba	-2.0216 (-4.11, 0.07), 0.0561
Region: W MB	Southern Manitoba	-2.0571 (-5.77, 1.65), 0.2769
New	Large [300+)	5.4470 (2.85, 8.05), <.0001
Small [1-99]	Large [300+)	1.8999 (-0.37, 4.17), 0.1010
Medium [100-299]	Large [300+)	3.3440 (1.18, 5.51), 0.0025
Declining (-,0)	Growing [10%+)	2.6349 (0.76, 4.51), 0.0059
Stagnant [0-10%)	Growing [10%+)	1.0982 (-0.44, 2.63), 0.1610

Table 17d.	Generalized Estimating Equations of Church Receiving Assistance
	Scores by Leader Demographics and Church Region, Size and
	Growth Status: n=168, Independent correlation matrix

Variable	Compararor	Estimate (95% CI), p-value
Age 1-36	51+	2.3919 (0.47, 4.32), 0.0148
Age 37-50	51+	-0.5516 (-2.29, 1.18), 0.5330
Gender	Male	-1.5285 (-4.12, 1.05), 0.2473
Married	Married	-1.5221 (-4.93, 1.88), 0.3812
Plautdietsch	Plautdietsch	1.9974 (0.34, 3.65), 0.0181
Foreign Born	Foreign Born	0.9595 (-3.11, 1.19), 0.3825
University degree	University degree	0.2602 (-1.53, 2.05), 0.7760
Role: Sr. Pastor	Other	1.0260 (-2.59, 4.64), 0.5782
Role: Pastor	Other	-0.8085 (-3.53, 1.92), 0.5617
Role: Board	Other	1.1472 (-1.21, 3.50), 0.3398
Region: USA	Southern Manitoba	0.2006 (-2.90, 3.31), 0.8992
Region: Belize	Southern Manitoba	1.2872 (-1.42, 3.99), 0.3507
Region: Mexico	Southern Manitoba	2.9443 (-1.08, 6.97), 0.1517
Region: ON	Southern Manitoba	0.0560 (-3.07, 3.19), 0.9710
Region: SK	Southern Manitoba	0.1408 (-1.70, 1.96), 0.8811
Region: C MB	Southern Manitoba	-2.5251 (-4.89, -0.08), 0.0445
Region: W MB	Southern Manitoba	-2.2988 (-4.81, 0.21), 0.0729
New	Large [300+)	13.3009 (9.09, 16.70), <.0001
Small [1-99]	Large [300+)	4.9620 (2.67, 7.25), <.0001
Medium [100-299]	Large [300+)	5.8497 (3.88, 7.82), <.0001
Declining (-,0)	Growing [10%+)	0.5213 (-1.32, 2.36), 0.5791
Stagnant [0-10%)	Growing [10%+)	2.9454 (0.40, 5.49), 0.0234

Table 17e. Generalized Estimating Equations of Expected 5-Year Change inAttendance by Leader Demographics and Church Region, Size andGrowth Status: n=190, exchangeable correlation matrix

(outliers over 100 excluded)

Variable	Compararor	Estimate (95% CI), p-value
Age 1-36	51+	-0.2850 (-7.22, 6.65), 0.9358
Age 37-50	51+	2.8190 (-2.05, 7.69), 0.2562
Gender	Male	1.8348 (-1.08, 4.75), 0.2178
Married	Married	5.4786 (0.66, 10.30), 0.0258
Plautdietsch	Plautdietsch	2.7878 (-2.18, 7.76), 0.2719
Foreign Born	Foreign Born	-0.1330 (-6.41, 6.14), 0.9669
University degree	University degree	1.7529 (-2.66, 6.16), 0.4358
Role: Sr. Pastor	Other	3.6349 (-5.59, 12.86), 0.4399
Role: Pastor	Other	-6.2371 (-12.01, -0.46), 0.0343
Role: Board	Other	-2.8709 (-6.83, 1.09), 0.1551
Region: USA	Southern Manitoba	-1.4412 (-25.07, 22.19), 0.9048
Region: Belize	Southern Manitoba	-0.1160 (-11.34, 11.10), 0.9838
Region: Mexico	Southern Manitoba	56.5397 (45.15, 67.93), <.0001
Region: ON	Southern Manitoba	2.6399 (-9.22, 14.50), 0.6628
Region: SK	Southern Manitoba	26.4364 (9.43, 43.45), 0.0023
Region: C MB	Southern Manitoba	1.4393 (-12.57, 15.45), 0.8405
Region: W MB	Southern Manitoba	-12.7186 (-31.27, 5.83), 0.1790
New	Large (300+)	16.7112 (-11.52, 44.95), 0.2461
Small [1-99]	Large [300+)	-4.0777 (-12.73, 4.58), 0.3557
Medium [100-299]	Large [300+)	-0.2946 (-8.17, 7.58), 0.9416
Declining (- ,0)	Growing [10%+)	-9.0346 (-21.51, 3.44), 0.1559
Stagnant [0-10%)	Growing [10%+)	-11.6380 (-25.58, 2.31), 0.1019

Intra-Cluster Correlation=0.1879

Table 17f. Generalized Estimating Equations of Expected 5-Year Change inAttendance by Leader Demographics and Church Region, Size andGrowth Status: n=192, exchangeable correlation matrix(outliers truncated to 100)

Variable	Compararor	Estimate (95% CI), p-value
Age 1-36	51+	0.5588 (-6.43, 7.55), 0.8755
Age 37-50	51+	2.7507 (-2.10, 7.60), 0.2666
Gender	Male	2.0149 (-0.95, 4.98), 0.1822
Married	Married	5.3213 (0.35, 10.29), 0.0359
Plautdietsch	Plautdietsch	2.9530 (-1.57, 7.48), 0.2006
Foreign Born	Foreign Born	-2.0710 (-7.94, 3.80), 0.4892
University degree	University degree	3.0766 (-1.55, 7.70), 0.1923
Role: Sr. Pastor	Other	4.3577 (-4.96, 13.67), 0.3591
Role: Pastor	Other	-7.0412 (-12.74, -1.34), 0.0155
Role: Board	Other	-2.5044 (-6.50, 1.49), 0.2191
Region: USA	Southern Manitoba	-6.0727 (-30.87, 18.73), 0.6313
Region: Belize	Southern Manitoba	9.9186 (-9.05, 28.88), 0.3053
Region: Mexico	Southern Manitoba	56.1565 (43.44, 68.87), <.0001
Region: ON	Southern Manitoba	2.7770 (-9.58, 15.14), 0.6597
Region: SK	Southern Manitoba	25.9700 (8.92, 43.02), 0.0028
Region: C MB	Southern Manitoba	-0.6018 (-16.36, 15.16), 0.9404
Region: W MB	Southern Manitoba	-20.6376 (-43.11, 1.83), 0.0718
New	Large [300+)	27.6065 (-0.26, 55.48), 0.0522
Small [1-99]	Large [300+)	-1.0429 (-12.64, 10.56), 0.8601
Medium [100-299]	Large [300+)	-0.3460 (-9.71, 9.01), 0.9422
Declining (-,0)	Growing [10%+)	-11.9043 (-24.78, 0.97), 0.0699
Stagnant [0-10%)	Growing [10%+)	-10.9533 (-25.91, 4.00), 0.1512

Intra-Cluster Correlation=0.2589

Masters Project – E. Rempel

BIBLIOGRAPHY

Barna, George. Being Strategic in Your God-Given Ministry: The Habits of Highly Effective Churches. Ventura, CA: Regal Books, 1999.

Bibby, Reginald W. Restless Churches: How Canada's Churches Can Contribute to the Emerging Religious Renaissance. Toronto, ON: Novalis/Saint Paul University, 2004.

Bibby, Reginald W. Restless GODS: The Renaissance of Religion in Canada. Toronto, ON: Novalis/Saint Paul University, 2004.

Bugbee, Bruce L. Network. Chicago, IL: Willow Creek Resources, 1994.

- Burroughs, P.E. *Growing a Church*. Nashville, TN: Sunday School Board of the Southern Baptist Convention, 1930.
- Dillman, Don A. Mail and Internet Surveys: The Tailored Design Method. New York, NY: Wiley, 2000.

Dyck, Cornelius J., ed., An Introduction to Mennonite History. Scottdale, Pa.: Herald Press, 1967.

- Easum, William. *Dancing with Dinosaurs: Ministry in a Hostile & Hurting World*. Nashville, TN: Abingdon Press, 1993.
- Epp, Frank H., *Mennonites in Canada, 1786-1920. The History of a Separate People.* Toronto, ON: Macmillan, 1974.
- Epp, Frank H., *Mennonites in Canada, 1920-1940. A People's Struggle for Survival* (Toronto, ON: Macmillan, 1982.
- Epp, Marlene, *Mennonites in Ontario. An Introduction.* St. Jacobs, ON: Mennonite Historical Society of Ontario, 1994.
- George, Carl F. with Bird Warren. The Coming Church Revolution: Empowering Leaders for the Future. Grand Rapids, MI: Fleming H. Revell, 1994.
- Heppner, Jack. Radical Discipleship: Leaders Guide. Steinbach, MB: Steinbach Bible College, 2000.
- Heppner, Jack. Search for Renewal: The Story of the Rudnerwiedner/ Evangelical Mennonite Mission Conference 1993-1987, Altona,MB: Friesen Printers, 1987.
- Janzen, William, Limits on Liberty. The Experience of Mennonite, Hutterite, and Doukhobor Communities in Canada, Toronto: University of Toronto Press, 1990.
- Klaassen, Walter. Anabaptism: Neither Catholic nor Protestant. Waterloo, ON: Pandora Press, 2001.
- Lederach, Paul M., A Third Way. Conversations About Anabaptist/Mennonite Faith ,Scottdale, PA: Herald Press, 1980.

Masters Project – E. Rempel

- Religious Tolerance, *Electronic references*. Retrieved May 13, 2006, from Religious Tolerance.org, Religious Makeup of Canada.
- Religious Tolerance, *Electronic references*. Retrieved May 13, 2006, from Religious Tolerance.org, Religious Identification in the United States.
- Schalk, Christoph A. Organizational Diagnosis of Churches: The Statiscital Development of the Natural Church Development Survey and its Relation to Organizational Psychology, Institute for Natural Church Development, Wurzburg, Germany, 1999.
- Schwartz, Christian A. Natural Church Development: A Guide to Eight Essential Qualities of Healthy Churches. 3rd ed. Carol Stream, IL: ChurchSmart Resources, 1998
- Schwartz, Christian A., Schalk, Christoph. Implementation Guide to Natural Church Development. Carol Stream, IL: ChurchSmart Resources, 1998.
- Sider, Ronald J., Christ and Violence. Scottdale, PA: Herald Press, 1979.
- Statistics Canada. 2006. *Electronic references*. Retrieved May 13, 2006, from http://www12.statcan.ca/english/profil01/CP01/Index.cfm?Lang=E, March 2006.
- Statistics Canada, 2001 Census: analysis series Religions in Canada, Catalogue no. 97F0022XCB2001002. Ottawa, ON: Statistics Canada, 2003.
- Statistics Canada, 2001. Census: analysis series Religions in Canada, Catalogue no. 96F0030XIE2001015. Ottawa, ON: Statistics Canada, 2003.
- Stoles Maura E, et al. Categorical Data Analysis Using the SAS System, 2nd ed., Cary, NC, SAS Institute Inc., 2000.
- Snyder, C Arnold. Anabaptist History and Theology. Waterloo, ON: Pandora Press, 1997.
- Towns, Elmer L., Vaughan, John N., Seifert, David J. *the complete book of Church Growth: 100 largest churches, 100 largest Sunday schools, Profiles of the world's most dynamic churches, Methods of church growth, What the Bible says about church growth.* 7th ed. Wheaton, IL: Tyndale House Publishers, Inc., 1987.
- van Braght, Thieleman J., Martyrs Mirror. The Story of Fifteen Centuries of Christian Martyrdom From the Time of Christ to A. D. 1660, Scottdale, Pa.: Herald Press, 1950.
- University de Costa Rica. *Electronic references*. Retrieved May 13, 2006, from http://censos.ccp.ucr.ac.cr
- US Census Bureau. (2006). *Electronic references*. Retrieved May 13, 2006, from http://Factfinder.census.gov

Warren, Rick. The Purpose Driven Church. Grand Rapids, MI: .Zondervan, 1995.

Wenger, J. C., ed., *The Complete Writings of Menno Simons.* Scottdale, Pa.: Herald Press, 1956.

McMaster - Math & Statistics

Masters Project - E. Rempel

List of Appendices

- 1. McMaster Research Ethics Board letter of approval
- 2. Table of Objectives
- 3. Cover Letter for Survey of Senior Pastors
- 4. Survey of Senior Pastors questionnaire
- 5. Cover Letter for Survey of Church Leaders
- 6. Survey of Church Leaders questionnaire
- 7. SAS code
 - a. Formats
 - b. Import EMMC Records
 - c. EMMC Records Pre-Analysis
 - d. Import Census Data
 - e. Import Surveys
 - f. Surveys Pre-Analysis
 - g. Analysis

McMaster University Research Ethics Board (MREB) c/o Office of Research Services, MREB Secretariat, GH-305, e-mail: ethicsoffice@mcmaster.ca CERTIFICATE OF ETHICS CLEARANCE TO INVOLVE HUMAN PARTICIPANTS IN RESEARCH						
Application Status: New 🗹	Addendum 🗌 Re	newal 🗌 Pr	oject Number 2005 2	206		
TITLE OF RESEARCH PRO	JECT:	-				
Growth Profile of Evangelical Mennonite	Attendance, Memb Mission Conferen	ership, and ce	d Churches in the			
Name(s)	Dept./Address	Phone	E-Mail			
Faculty Investigator(s)/ Supervisor(s)						
L. Thabane	Clinical Epidemiolog	y	thabanl@mcmas	ter.ca		
Student Investigator(s)						
E. Rempel	Mathematics	anna a saine da anna anna anna anna anna anna anna	eddy@rempel.ca			
COMMENTS AND CONDITI	ONS:					
		· •				
	* *					
Reporting Frequency:	Annual:	Feb-22-2007	******	Other:		
Date: Feb-22-2006 Dr. D.	Maurer, Chair, MR	B: Nap	hne Mauri	r		

Objectives of EMMC Research Project

Objective	Hypothesis	Variables: outcome predictors	Method	Data Source
-----------	------------	-------------------------------	--------	-------------

A: EMMC Records of Attendance and Membership

Determine the annual increase in	H: the increase rates in	Annual EMMC attendance, membership,	Linear model	EMMC Records
attendance, membership, and churches	attendance, membership, and	churches records		
overall and by region (1960 to 2005)	number of churches remain		Forecasting	
	consistent across time and		methods	
	across regions	,		
Compare the 10-year increase in	H: EMMC increase in	1991, 2001 EMMC attendance and	Descriptive	EMMC Records
attendance and membership of the	attendance and membership is	membership records	statistics	
EMMC with other religions, Christian	similar to that of the aggregate	1991, 2001 Canadian census affiliation		Canadian
churches, evangelical churches,	evangelical church and	with Christian, Catholic, Protestant,		Census data
Mennonite church as a whole	aggregate Mennonite church in	Mennonite		
	Canada			
		.8		
Determine the most recent EMMC 5-	H: none	2000 EMMC Records of attendance &	Descriptive	EMMC Records
year relative increase in attendance,		membership	statistics	
membership, churches				
Group EMMC churches in three ways:	H: none	2000 EMMC Records of attendance &	Descriptive	EMMC Records
region, size (attendance in 2000),		membership, and records of churches	statistics	
growth status (relative increase in		participating in church plants 20002005		
attendance 20002005)				
Compare the relative increase in		·		
average attendance by region and				
church size, attributing the growth in				
attendance of churches planted since	***			
2000 to the churches that planted them	See.			
	*			
B: National Censuses of Church N	leighbourhoods		<i>y</i>	
Determine the demographics of the	H: none	Neighbourhood demographics summary :	Descriptive	EMMC Records
neighbourhoods surrounding each	X	density (urban or rural), median income,	statistics	
EMMC church		median age, gender, education levels,		National census
Determine which neighbourhood		ethnicity, religious affiliation, marital status	Linear model	databases
demographics correlate with relative				
change in attendance 2000 to 2005			2	
EMMC church Determine which neighbourhood demographics correlate with relative change in attendance 2000 to 2005		median age, gender, education levels, ethnicity, religious affiliation, marital status	Linear model	National census databases

Objective	Hypothesis	Variables: outcome predictors	Method	Data Source
C: Survey of Senior Pastors				
Determine the demographic profile of Pastors of EMMC churches	H: none	Age Gender Education levels Marital status Ethnicity Language first spoken Country of Birth	Descriptive statistics	EMMC Records Survey of Senior Pastors
Verify that the definitions used for the EMMC Records of attendance and membershipare similar to average attendance and endofyear membership	H: The EMMC records of Attendance and Membership for 2004 and 2005 are similar to Survey of Senior Pastors Average Attendance and endofyear membership.Therefore, we can precisely define those outcomes.	2004 and 2005 EMMC Records of attendance and membership 2004 and 2005 Survey of Senior Pastors average attendance and endofyear membership	Descriptive statistics	EMMC Records Survey of Senior Pastors
Determine where the EMMC is gaining or losing members in 2005	H: The EMMC net increase in membership is largely due to net transfer from other churches, not by baptism of nonchurched H: The transferees into EMMC churches are coming from traditional Mennonite churches; transferees out of EMMC churches are going to less traditional Mennonite churches	Added by baptism Transfer to/from other EMMC Transfer to/from EMC Transfer to/from Old Colony Transfer to/from Reinlander Transfer to/from Sommerfelder Transfer to/from Bergthaler Transfer to/from Kleine Gemeinde Transfer to/from Kleine Gemeinde Transfer to/from Brethren in Christ Transfer to/from General Conference Transfer to/from other Mennonite	Descriptive statistics	Survey of Senior Pastors

Objective	Hypothesis	Variables: outcome predictors	Method	Data Source
Determine whether churches actively encourage growth in these ways	H: none	Church Plant in last 5 years Selected ONE particular Spiritual gifts assessment tool Conducted a Natural Church Development evaluation Multiple Worship Services Worship Services to multiple cultures or language groups Staff training in expense budget Nonstaff training in budget Donations to community relief Donations to local outreach	Descriptive statistics	Survey of Senior Pastors
Determine the level of participation in church life by church attendees	H: none	2005 average attendance # in Sunday school # in Bible study # at annual meeting # donate to church	Descriptive statistics	EMMC Records Survey of Senior Pastors
Determine whether churches have hese facility and financial resources	H: none	Building ownership Worship space capacity Average attendance Amount of church debt Amount of noncapital debt	Descriptive statistics	EMMC Records Survey of Senior Pastors
Determine how churches are organized	H: none	One or several boards Board term limit (yes vs. no) who hires senior pastor who approves budget who oversees nonsenior pastors	Descriptive statistics	EMMC Records Survey of Senior Pastors

		2 ⁴	<i>1</i> 2	
Objective	Hypothesis	Variables: outcome predictors	Method	Data Source
Determine which of the above factor	H: the relative change in	Church Region, Size, and Growth Status	Univariate	EMMC Reco
correlate with relative change in	attendance from 2000 to 2005	Church Plant in last 5 years	Linear Models	
attendance from 2000 to 2005	correlates to the following	Selected ONE particular Spiritual gifts		Survey of
	variables	assessment tool	Multivariate	Senior Past
		Conducted a Natural Church Development	Linear Models	
		evaluation	with most	
		Multiple Worship Services	significant	
		Worship Services to multiple cultures or	(p<0.10)	
8		language groups	effects	
		Staff training in expense budget		
		Nonstaff training in budget		
		Donations to community relief		
		Donations to local outreach		
	ж. Ж	2005 average attendance		
*		# in Sunday school		
12		# in Bible study	* *	
		# at annual meeting		
		# donate to church		
		Building ownership		
		Worship space capacity		
		Average attendance		
		Amount of church debt		
		Amount of noncapital debt		
		One or several boards		
		Board term limit (ves vs. no)		
		who hires senior pastor		
		who approves budget		
		who oversees nonsenior nastors		

Objective	Hypothesis	Variables: outcome predictors	Method	Data Source
D: Survey of Leaders of EMMC C	hurches	λ.		
Determine the demographic profile of Leaders in EMMC churches	H: none	Church Region, Size, and Growth Status Age Gender Education levels Marital status Ethnicity Language first spoken Country of Birth Role	Descriptive statistics	EMMC Records Survey of Senior Pastors Survey of Church Leaders
Assessing church leaders Anabaptist Faith Orthodoxy by the jobs they oppose on faith grounds	H: none	Church Region, Size, and Growth Status Age Gender Education levels Marital status Ethnicity Language first spoken Country of Birth Role How much jobs would compromise faith	GEE Model to account for clustering within churches	EMMC Records Survey of Senior Pastors Survey of Church Leaders
Assessing church leaders Anabaptist Faith Orthodoxy by the activities they oppose on faith grounds	H: none	Church Region, Size, and Growth Status Age Gender Education levels Marital status Ethnicity Language first spoken Country of Birth Role How much activities would compromise faith	GEE Model to account for clustering within churches	EMMC Records Survey of Senior Pastors Survey of Church Leaders

Objective	Hypothesis	Variables: outcome predictors	Method	Data Source
Make a summary measures of the assistance that is required by the churches Model it by the leaders demographics and church region, size, and growth status.	H: none	Church Region, Size, and Growth Status Age Gender Education levels Marital status Ethnicity Language first spoken Country of Birth Role Assistance required by their church	GEE Model to account for clustering within churches	EMMC Records Survey of Senior Pastors Survey of Church Leaders
Make a summary measures of the assistance that is received by the churches Model it by the leaders demographics and church region, size, and growth status.	H: none	Church Region, Size, and Growth Status Age Gender Education levels Marital status Ethnicity Language first spoken Country of Birth Role Assistance received by their church	GEE Model to account for clustering within churches	EMMC Records Survey of Senior Pastors Survey of Church Leaders
church leaders' expectation of future church increases in attendance	H: none	Church Region, Size, and Growth Status Age Gender Education levels Marital status Ethnicity Language first spoken Country of Birth Role 5-yr expectation of increase in attendance	GEE Model to account for clustering within churches	EMMC Records Survey of Senior Pastors Survey of Church Leaders

Eddy Rempel 30 Donker Drive St. Thomas, Ontario N5P 4J3

2006 March 20

«Leaderld» «Role» «Name» «Address» «City», «Prov» «Postal_Code»

Dear «Role» «Name»,

In the last several years, Evangelical Mennonite Mission Conference (EMMC) members have suggested that the conference must change to help it grow. I am studying how much the EMMC is growing in attendance, membership, and church planting. I also wish to find out what factors help the churches grow. The results will assist the conference leaders help churches where it is needed.

I am doing this study under the direction of Dr. Lehana Thabane. This work is needed for a Masters of Science degree in the Department of Math & Statistics at McMaster University where I am currently a graduate student.

This work is supported by the EMMC which has chosen Jake Thiessen and Gin Thiessen to be my advisors. It has received approval from the McMaster University Research Ethics Board.

Your input is voluntary. Your answers are important and we hope that you will feel comfortable answering all the questions. But you can skip any question you wish. You can also return the blank form in the stamped envelope if you do not want to fill it out. Please note that the number at the top of the survey tells me whether you have decided to respond. If you need more information about the study, please contact me or Dr. Thabane at (905) 522-1155, Ext. 3720 or thabanl@mcmaster.ca

For information about your rights, you can contact Dr. Maurer, chair of the McMaster University Research Ethics Board at 905-525-9140, ext. 23030.

This survey is for both paid and volunteer church leaders that have been identified by the EMMC office.

Filled out forms will be kept secret and stored in a safe location. Your answers will be entered into a computer without your name and other personal information. Answers will only be printed in summary on all reports. The EMMC office will also receive the summary of the data.

Please complete the form and mail it in the stamped envelope within a week of receiving this package. Money is enclosed for return postage from outside of Canada. Thank you for your help.

Eddy Rempel

EMMC Church Growth Survey of Senior Pastors 2005

<<Churchid>>

Begin Here

Church Attendance and Membership

The following questions will ask you about your church attendance and membership.

- 1. Approximately, how many people that do not attend your church worship services weekly, attend at least once a month? (check one)
 - □ 0-4 people
 - □ 5-9 people
 - □ 10-14 people
 - □ 15-19 people
 - □ 20-29 people
 - □ 30-39 people
 - □ 40-49 people
 - □ 50-69 people
 - □ 70-99 people
 - □ 100-124 people
 - □ 125-149 people
 - □ 150-174 people □ 175-199 people
 - □ 175-199 people □ 200-249 people
 - □ 250-249 people
 - □ 300 or more people
- 2. What is the average attendance in 2004 and 2005 at weekly worship service(s) or Sunday church events?

_____ 2004 average attendees

2005 average attendees

3. What was the full membership total on December 31, 2004 and December 31, 2005?

___ membership December 31, 2004

membership December 31, 2005

4. Most of our churches have started in a Mennonite immigrant community. On December 31, 2004 and December 31, 2005, how many of your members were NOT descendents of Mennonite immigrants?

____ membership December 31, 2004

membership December 31, 2005

5. What percentage of members attended your worship services regularly in the last three months?

% of members

- 6. Of the MEMBERS not attending your worship services regularly in the last three months, how many did not attend regularly in the last month due to illness or immobility, study away from home, or missionary or church planting assignments?
 - _____ Total NOT attending regularly
 - _____ Illness or immobility (in bed, etc.)
 - _____ Study away from home
 - Missionary or church planting assignment
- 7. In the last ten years, in which church plant locations has your church participated?

Church plant 1
 Church plant 2
Church plant 3

8. In 2005, how many people from the following age groupings were added to the membership by baptism or transfer from local (usually driven by car in 20 minutes or less) and distant (usually driven by car in more than 20 minutes) churches?

Age group of members	Under 18	18-34	35-54	55+
Baptism				
Transfer from local church				
Transfer from distant church				

9. In 2005, how many members were transferred into your membership from local (usually driven by car in 20 minutes or less) or distant (usually driven by car in more than 20 minutes) churches? (leave blank to indicate 0)

10001

Distant

		LUCal	Distant
	Transfer from other EMMC churches	<u> </u>	members
•	Transfer from EMC churches		members
	Transfer from Old Colony churches		members
	Transfer from Reinlander churches		members
	Transfer from Sommerfelder churches	-	members
	Transfer from Kleine Gemeinde churches		members
	Transfer from Bergthaler churches		members
	Transfer from Mennonite Brethren churches		members
	Transfer from Brethren in Christ churches		members
	Transfer from General Conference churches		members
	Transfer from other Mennonite churches		members
	Transfer from non-Mennonite Evangelical churches		members
	Transfer from other churches		members

10. In 2005, how many members from each of the following age groupings transferred their membership to local (usually driven by car in 20 minutes or less) churches, transferred to distant (usually driven by car in 20 minutes) churches, died, withdrew their membership, or were dismissed?

ew meir membersnip, or we	re aismiss	seu r		
Age group of members	Under 18	18-34	35-54	55+
Transferred to local churches				
Transferred to distant churches	·		<u> </u>	
Died				
Withdrew their membership				
Were dismissed				

11. In 2005, how many members were transferred OUT of your membership to the following local (usually driven by car in 20 minutes or less) and distant (usually driven by car in more than 20 minutes) churches?

	Local	Diotant
Transfer to other EMMC churches		members
Transfer to EMC churches		members
Transfer to Old Colony churches		members
Transfer to Reinlander churches		members
Transfer to Sommerfelder churches		members
Transfer to Kleine Gemeinde churches		members
Transfer to Bergthaler churches		members
Transfer to Mennonite Brethren churches		members
Transfer to Brethren in Christ churches		members
Transfer to General Conference churches		members
Transfer to other Mennonite churches	·	members
Transfer to non-Mennonite Evangelical churches		members
Transfer to other churches	······································	members

12. Does your church ELECT (by the congregation or membership), APPOINT (by pastor or other leaders), or SELECT (by Spiritual Gift team or committee) to fill the following ministry positions?

Positions	Elect	Appoint	Select by spiritual gif	ť
Deacons				
Elders				
Sunday school superintendent				
Treasurer				
Congregational chair			· 🗖 -	
Lay ministers / pastors				
Sunday school teachers				
Bible study leaders				
Missions / outreach chair				
Worship leaders		<u>~</u>		
Other key leaders - specify				

13. How important is it to be a member to serve in your church?

□ Very important □ Important □ Somewhat □ Unimportant □ Not at all

14. How important is it to be a member to serve as a leader in your church?

□ Very important □ Important □ Somewhat □ Unimportant □ Not at all

15. How much do you think the following contributed to an increase in attendance in the last five years? (check one box in each row)

Organizational structure Building expansion Building improvements Handicap accessibility Pavement or canopy Identified target group Pastor New vision Small groups Worship Service Children's ministries Teaching Prayer Revival Reconciliation Discipleship Missions Freedom from bondage Care to community Outreach to community Church plant Other 1 – specify	Very much	Much	Some	Not much 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Other 2 – specify	Ör a				

Participation in Church Life

The following questions will ask you about the participation in your church programs.

16. Where do you meet for your weekly worship services?

- Owned building
- □ Rented church building
- Rented school
- □ Other specify

17. To what extent do these other groups or activities use your facilities?

Other churchesIIIIFamilies funeralsIIIIAlcoholics AnomalousIIIICommunity moms programIIIIAdult educationIIIIMCC meetingsIIII		Very much	Much	Some	Not much	Very little
Families funeralsIIIIAlcoholics AnomalousIIIICommunity moms programIIIIAdult educationIIIIMCC meetingsIIII	Other churches					
Alcoholics Anomalous I	Families funerals					Ò
Community moms program I I I I Adult education I I I I MCC meetings I I I I	Alcoholics Anomalous			Ģ		
Adult educationIIIIMCC meetingsIIII	Community moms program					
MCC meetings	Adult education					
	MCC meetings					
Other – specify below	Other - specify below					

- 18. Excluding meeting and staff only use, how many hours per week is your church building used for ministry?
 - Hours per week 0-5 5-10 10-15 15-20 20 +

19. Approximately, what is your weekly worship service day of week and time, primary language, target group, maximum (full but not over full) seating capacity of the sanctuary or meeting area, and the starting date of that worship service?

	Day of week	Time	Language	Target group	Capacity	Start Date
Service 1						
Service 2						
Service 3	<u></u>					
Service 4					*	

20. Approximately, how many small groups which meet at least twice a month for community, care giving, and accountability does your church have?

small groups

21. In a typical week, approximately, how many children (age 2-13), youth (14-17), and adults (18 and up) participate in these following?

	Children	• •	Youth	Adults
Sunday School				
Sunday School but not worship	р			
Bible study		. ×		
Small group or Bible study				
Worship but not Sunday schoo	ol			

22. In 2005, approximately, how many people attended the annual meeting?

Attend annual meeting

people

23. In the fall of 2005, how many regular church attendees or members attended the following Bible colleges? (leave blank if zero)

Steinbach Bible College	 people	,
Bethany Bible Institute	 people	
Steinrich Bible School	 people	
Briercrest Bible College	 people	
Providence College/ Seminary	 people	
Winnipeg College/ Seminary	people	
Tyndale Bible College/Seminary	 people	
Ontario Bible College/Seminary	 people	
Prairie Bible Institute	 people	
Emanuel Bible College	 people	
Heritage Bible College	 people	
Rio Grande Bible Institute	 people	
Goshen College	 people	
Canadian Mennonite University	 people	
Evangelical Anabaptist Seminary	 people	
Other – Specify	people_	

Structure and Decision Making

The following questions will ask you about your church structure and decision making.

24. In what month does each of the following events normally occur?

Fiscal year start		-	
Annual general meeting	·	~	
Start of ministry terms			
Final budget adopted			
Preliminary budget adopted (if you have one)			
Election of board or council members	-		

25. Of the membership (or congregation), board (or council), senior pastor, ministry team (or committee), treasurer (or finance team), which is most likely to do each of these tasks? (check one box in each row)

	Membership/	Board/	Pastor	Ministry	Treasurer/
112 0	Congregation	Council	_	lean	Fillance
Hires the senior pastor					
Approves budget					
Develop budget					
Starts a new ministry	D .				
Oversees non-senior pastors					· 🗆
Contract lawn care					

26. What is the name of the body that sets the ministry direction of your church?

27.Does this council o □	body also lead in spi r ministerial) to lead i body also leads in spiritu	ritual matters on the spiritual rule and the spiritual rule and the spiritual rule and the spiritual rule and the spiritual matters and the spiritua	or is there a s natters of th second group	second group e church? o for spiritual m	ס (e.g. atters
28.What lead Bo Co Min Ot	dership bodies does y ard uncil nisterial her – specify	our church hav	/e? (check a]]]]	all that apply)	Ĩ
29. Is there a members □	maximum number of can serve? Yes	consecutive ye	ears that vot	ing board or	council
30. What are council n	the strengths and we nembers?	aknesses of ha	ving terms f	or voting boa	ard or
31.How long □	has your church org 0 to 1 year □ 1 to 5	anizational stru years □ 5 to	icture been i 10 years □	in place? 10 to 15 years	□ 15+ yrs
32.Does you □	r church have ministr Yes □ No	y department l	neads?		
33. Has your next five Activel Chose Target	church done the follo years? (check one bo y planning n a location ed a people group	wing planning x in each row)	activities fo	r church plar	its in the
Evaluation Too	ols				
The following q	uestions will ask you	about evaluatio	ons of your o	hurch.	
34. Has your use? □ 35. If your ch called?	church selected ONE ONE particular tool hurch uses one partic	■ particular Spin ■ None or ular Spiritual gi	ritual gifts as several tools fts assessm	SSESSMENT to → skip the n Nent tool, wha	ol for your ext question. It is it

Printed: 2007-01-18 <<ChurchId>> EMMC Pastors Survey Questionnnaire 2006Mar18

Dogo 7 of 10

36. Has your church conducted a Natural Church Development evaluation?

□ Yes

□ No If no, skip to the next question.

37. Starting with the most recent, what are the last three Natural Church Development survey dates and overall and quality factor scores?

Quality Factors	Most Recent	Second last	Third last
Date of Survey (yyyy/Mmm/dd)	-		
Overall			
Empowering Leadership			
Gift-oriented Ministry	1		
Passionate Spirituality		-	
Functional Structures		-	
Inspiring Worship Services			
Holistic Small Groups			
Need-oriented Evangelism			-
Loving Relationships			

38. Other than the Natural Church Development survey, what other tools to you're your church strengths and weaknesses has your church used?

Staffing Practices

The following questions ask about the church staffing practices.

39. In an average week, for how many hours are you paid for ministry and how many hours do you spend in church ministry? (check one box in each row)

PAID ministry SPEND in ministry		0 hrs 0 hrs		0-10 hrs 0-10 hrs		10- 10-	20 hrs □ 20 hrs □	20-40 hr 20-40 hr	s □ 4 s □ 4	0+ hrs 0+ hrs
40. How many annual vacation weeks does the church offer the senior pastor?										
□ 2 week		3 week	S	□ 4	week	S	□ 5 w	reeks		6+ weeks
41. Does your church offer the senior pastor extended health plan, RRSP or pension, or a sabbatical after six years of service? (check one box in each row)										
Extended health pla	an			Yes			No			
RRSP or pension				Yes			No			
Sabbatical after six	year	S		Yes			No			
 42. In the last five years, has your church membership had a confidence vote for the senior pastor, whether or not the membership showed confidence in the pastor? □ Yes □ No 										

Personal Pastoral Ministry

The following questions ask about your pastoral ministry at your church.

- 43. Before you were hired or appointed as the senior pastor, did you attend your current church, another EMMC church, another Mennonite church, or a non-Mennonite church?
 - current
 other EMMC
 other Mennonite
 Non-Mennonite
- 44. Approximately, what percentage of your ministry time do you spend on the following tasks?

Preaching	% of ministry time
Counselling	% of ministry time
Teaching	% of ministry time
Dreaming	% of ministry time
Sermon preparation	% of ministry time
Coaching ministries	% of ministry time
Shepherding	% of ministry time
Administration	% of ministry time
Leadership training	% of ministry time
EMMC board/council	% of ministry time
Other churches	% of ministry time
Associated ministries	% of ministry time (i.e. MCC etc.)
Other – specify	%

45. How do you most often give oversight to the following ministries? (check one box in each row)

	Do	Delegate	Delegate
10	yourself	to staff	to lay people
Baptism classes			
Teach children			
Teach youth			
Teach youth			
Teach adults			
Teach seniors			
Outreach locally			
Counselling			
Community			
Hospital visitation			
Grief counselling			
Funerals			
Lead in worship			
Preaching			
Train leaders			
Mentorship			
Discipleship			

Worship service components used in Churches

The following questions ask about components used in your worship services.

46. How often does your church use the following in your worship services? (check one box in each row)

		Very		Much	Some	Not	Very
		much				much	little
ł	lymns						
(Courses						
١	Norship bands						
(Choir						
F	Responsive reading						
[Drums						
F	Piano						
(Guitars						
I	Drama						
I	Dance						
ł	Hand clapping with songs						
l	Live video		*				

47. Does your church use pews or chairs for your worship services?

Monthy	DOWE	
IVIOSUV	DEWS	

□ Mixture

□ Mostly chairs

Technology used in Churches

The following questions ask about technology use by your church staff.

48. Not including personal computers, how many personal computers does the church use for ministry?

number of computers

49. Does your church have a website?

□ Yes

🗆 No

50. How often do your church staff use the following tools? (check one box in each row)

	Daily	Weekly	Monthly	Annually	Hardly ever
E-mail					
Website					
Mass e-mail					

Finances

The following questions will ask you about your church finances.

51. Rounding to whole dollars, in 2005 fiscal year how much did you budget for the following expenses?

\$	TOTAL	expense	budget
		•	

EMMC general account

\$ _____ EMMC designated projects

\$ _____ Other overseas projects

Non-staff training in your church

\$ _____ Staff training

\$ ______ Building and property maintenance (including utilities, janitorial services)

\$ _____ Staff salary & benefits (excluding training)

\$ _____ Service debt (paying off debt & interest)

Building and property expansion

\$ _____ Administration

(office supplies, equipment, bookkeeping, administrative & secretary salaries)

Post-secondary Christian education

S _____ Needy people, food banks

52. How does your church decide how much to budget to the EMMC?

- □ % of total budget
- □ \$ per member or attendee
- Needs of EMMC
- Other specify _____

53. Rounding to whole dollars, in the 2005 fiscal year, excluding money sent to the EMMC, how much did your church spend for the following physical relief efforts?

Physical relief to people in your local church

\$ _____ Physical relief in your community but outside your local church

_____ Physical relief outside your community

54. Rounding to whole dollars, in the 2005 fiscal year, how much did your church spend for the following missionary efforts?

Local missionary outreach

Other mission organizations

\$ _____ Other EMMC and LIEAB churches (not including in EMMC projects)

55. Rounding to whole dollars, in the 2005 fiscal year, how much in donations did your church receive?

\$ _____ Total donations received

- 56. For donations received in 2005, how many donors were receipted by your church? Donor to be receipted
- 57. Rounding to whole dollars, on December 31, 2005, how much debt did your church have?

\$ Church debt

58. Rounding to whole dollars, on December 31, 2005, how much debt for other purposes than capital improvements and property purchases did your church have?

> Debt for other than capital improvements and property purchases \$

59. Is your church planning a major effort in its life and ministry (e.g. building expansion, mission effort, capital campaign, adult day care, etc)?

□ Yes

D No

- 60. Has there been a budget shortfall in 2005? □ No
 - □ Yes
- 61. To what extent would you use the following if the conference provided? (check one box in each row)

	Very much	Much	Some	Not much	Very little
Organizational structure ideas					
Pastor hiring guide					
Staff salary guide					
Staff benefit package					
Church evaluation tools					
Spiritual gifts tools					
Bible study guides					
Structure guides					
Leadership training					
Job Descriptions					

Thank-you for completing the questionnaire. Your prompt assistance will allow us to have the results for the convention in July. Please mail both this survey and the church leader survey in the addressed envelope as soon as possible:

Eddy Rempel 30 Donker Drive St. Thomas, Ontario N5P 4J3 (519) 913-1583 eddv@rempel.ca

Eddy Rempel 30 Donker Drive St. Thomas, Ontario N5P 4J3 Canada

2006 March 20

«Churchld» «Role» «Name» «Address» «City», «Prov» «Postal_Code»

Dear «Role» «Name»,

In the last several years, Evangelical Mennonite Mission Conference (EMMC) members have suggested that the conference must change to ensure continued growth. I am conducting a study to evaluate the extent of EMMC growth in attendance, membership, and church plants. I also wish to determine what factors correspond with increased growth. The results will help the EMMC leaders respond to needs and opportunities of their churches.

I am conducting this study under the supervision of Dr. Lehana Thabane. This work is done as part of the requirements for a Masters of Science degree in the Department of Math & Statistics at McMaster University where I am currently a graduate student.

This work is supported by the EMMC which has appointed Jake Thiessen and Gin Thiessen to act as advisors to help with implementation. It has received ethics approval from the McMaster University Research Ethics Board.

Your participation is voluntary. Answering the questions is important and we hope that you will feel comfortable answering all of them. Nevertheless, you can skip any question you wish and still remain in the study. You can also decline to participate by returning the blank questionnaire in the stamped envelope. Please note that each respondent has been assigned a unique code to help us determine which respondents have responded or declined. If you need any further information about the study, please contact me or Dr. Thabane at (905) 522-1155, Ext. 3720 or thabanl@mcmaster.ca

For information regarding your rights as research participants, you can contact Dr. Maurer, chair of the McMaster University Research Ethics Board at 905-525-9140, ext. 2 3030.

This survey is directed to the senior pastor. If the senior pastor position is vacant or he is away for an extended period of time, the interim pastor or board chair should fill out the survey.

Completed questionnaires will be kept confidential and stored in a safe location. Your responses will be entered into a password-protected computer database without your name and other identifying information. Responses will only be presented in summary form in all reports and presentations. The EMMC office will also receive the data in summary form.

Please complete the questionnaire and mail it in the provided envelope within two weeks of receiving the package. Thank you for your cooperation.

Eddy Rempel

EMMC Survey of Church Leaders 2005

«LeaderId»

Begin Here

In the spaces provided, answer the following questions for yourself.

Personal Demographics

The following questions ask your personal demographics.

1. What is your YEAR OF BIRTH?

Year of Birth (yyyy)

2. What is your GENDER? (check one box)

- □ female
- □ male

3. What is your MARITAL STATUS? (check one box)

- □ Never legally married (single)
- □ Legally married
- □ Separated, but still legally married
- □ Divorced
- □ Widowed

4. Which LANGUAGE did you first learn at home and still understand? (check one box)

- □ Plautdietsch (Low German)
- English
- □ French
- German (High German)
- Dutch
- Spanish
- □ First People's or American Indian Language
- Other language Specify

5. To which ETHNIC ORIGIN or cultural group do your ancestors belong? (check one box)

- □ Mennonite
- □ English
- □ French
- □ German (other German)
- □ Dutch
- □ Spanish
- □ First People's or American Indian Group
- Other ethnic origin Specify

6. In which COUNTRY were you BORN? (check one box)

- Canada
- □ United States
- □ Mexico
- Belize
- Other country of birth Specify _____

7. Whether at a secular or Bible school, what certificates, diplomas, or degrees have you obtained? (check one box)

- □ None
- □ Secondary (high) school or equivalent
- □ Trade certificate or diploma
- Other non-university certificate or diploma
 - (obtained at community college, technical institute)
- □ University certificate or diploma BELOW bachelor level
- □ Bachelor's degree (e.g., B.A., B.Sc., LL.B.)
- University certificate or diploma ABOVE bachelor level
- □ Master's degree(s) (e.g., M.A., M.Sc., M.Ed.)
- Degree in medicine, dentistry, veterinary medicine or optometry (M.D., D.D.S., D.M.D., D.V.M., O.D.)
- Earned doctorate (e.g., Ph.D., D.Sc., D.Ed.)

8. Which Bible College, Christian liberal arts school, or seminary diplomas or degrees have you obtained? (check all that apply)

	Attended	Diploma	Bachelors	Masters	Doctorate
Steinbach Bible College					
Aylmer Bible School					
Bethany Bible Institute					
Steinrich Bible School					
Briercrest Bible College					
Providence College/ Seminary					
Winnipeg College/ Seminary					
Tyndale Bible College/Seminary					
Ontario Bible College/Seminary					
Prairie Bible Institute					
Emanuel Bible College					
Heritage Bible College					
Rio Grande Bible Institute					
Goshen College					
Canadian Mennonite University					
Evangelical Anabaptist Seminary					
Other - Specify below	П [,]				
		×			

Personal Involvement in Your Church

The following questions ask about your involvement in your current local church.

9. How did you come to first attend your current church? (check best answer)

□ I attended as long as I remember

- □ I remember first coming with my parents or guardian
- I came on my own
- □ I came with friends from this church
- □ I was hired as staff member

10. How long have you attended your current church? (check one box)

- Less than a year
- □ 1 or more years but less than 2 years
- □ 2 or more years but less than 5 years
- □ 5 or more years but less than 10 years
- □ 10 or more years but less than 20 years
- □ More than 20 years

11. Using a 1 for your top gift, a 2 for your second gift, and a 3 for your third gift, which of these do you believe to be your top 3 spiritual gifts? (number 3 gifts)

Teaching
 Leadership
 Helps
 Discernment
 Miracles
 Apostleship
 Encouragement
 Giving
 Evangelism
 Shepherding
 Hospitality
 Knowledge
 Faith
 Craftsmanship
 Tongues
 Interpretation

12. To what extent have your spiritual gifts been affirmed by your church friends and leaders? (check one box)

- □ Very great □ Great □ Somewhat □ Hardly □ Not at all
- 13. What are your primary roles or job titles at your church? (list up to 3 roles)

14. On what church body do you serve? (check one box)

- □ Board
- □ Council
- Ministerial
- □ Other specify

15.In one week, how many hours do you spend in the ministry of your local church? (check one box)

- □ less than 5 hours
- □ 5 or more but less than 10 hours
- □ 10 or more but less than 15 hours
- □ 15 or more but less than 20 hours
- □ 20 hours or more

16. In one week, how many hours do you spend in the ministry of other associated Christian organizations (e.g. EMMC, MCC)? (check one box)

- □ less than 5 hours
- □ 5 or more but less than 10 hours
- □ 10 or more but less than 15 hours
- □ 15 or more but less than 20 hours
- □ 20 hours or more

17.In one week, how many hours do you spend volunteering with other community organizations (e.g. Red Cross, Big Brother/Sister, coaching sports)? (check one box)

□ less than 5 hours

- □ 5 or more but less than 10 hours
- □ 10 or more but less than 15 hours
- □ 15 or more but less than 20 hours
- 20 hours or more

18. How many minutes does it normally take to drive to church worship services? (check one box)

- less than 5 minutes
- □ 5 or more but less than 10 minutes
- □ 10 or more but less than 15 minutes
- □ 15 or more but less than 20 minutes
- 20 or more but less than 30 minutes
- □ 30 or more but less than 45 minutes
- □ 45 or more but less than 60 minutes
- □ 60 minutes or more
- 19. Have you ever gone to another country to visit missionaries or to help with a mission project? (check one box)
 - 🗆 Yes 🔅 No
- 20. Have you ever gone to another cultural group in Canada to visit missionaries or to help with a mission project? (check one box)

Yes

	No

- 21. Are you part of a small group that meets a least twice a month for community and accountability? (check one box)
 - 🗆 Yes 👘 🗆 No
- 22. Are you part of a small group that meets regularly for Bible study and care? (check one box)
 - □ Yes

🗆 No

23. In 2005, have people from your small group left to form another small group? (check one box)

Yes

```
□ No
```

24. Have you personally been involved in the following leadership development activities in the last year? (check one box in each row)

Attended a leadership seminar	Yes	No
Faught a class to train leaders	Yes	No
Planned a leadership seminar	Yes	No
Mentored a person personally	Yes	No
Read a book on leadership	Yes	No

25. How often do you receive a personal evaluation of your ministry from the congregation, board, or ministry team? (check one box)

□ Annually □ Every 2 years □ Every 5 years □ Never
Personal Theological Questions

The following questions ask about your personal beliefs.

26. To what extent do you personally do the following? (check one box in each row)

	Very much	Much	Some	Not much	Very little
Live a simple lifestyle					
Be accountable to others					
Physically care for others					
Consult Bible for decisions					

27. How strongly do you believe the following are required for church membership? (check one box in each row)

	Very much	Much	Some	Not much	Very
Baptism.					
Rebaptism for people already	baptized as i □	nfants. □			
Rebaptism for people baptized as non-Christians.					
People must be born again.					

28. How strongly do you believe the following statements about your church? (check one box in each row)

		Very much	Much	Some	Not much	Very little
	Church discipline is practiced for		mbers.			
	Actively reaches to people of oth	ner ethnic o	r groups.			
	Actively reaches to people of oth	ner social o □	r cultural gro	ups.		
	Is different from the neighbourho	ood by the □	unique lifesty □	le.		
	It is evident that the members for	ollow Jesus. □				
4	Should be reserved for descend	lents of Me	nnonite immi □	grants from I □	Russia.	

29. How strongly do you believe the following statements are true about the Bible? (check one box in each row)

	Very much	Much	Some	Not much	Very little
The Old Testament must be inte	erpreted in lig	ght of the Ne □	w Testamer	nt.	
Our view of right and wrong mu	ist be derived □	d primarily fro □	om the New □	Testament. □	
Our view of right and wrong mu	ist come equ □	ally from bot □	h the New a □	nd Old Testa	aments.
The New Testament must be in	terpreted thr □	ough the life □	and teachin □	gs of Jesus. □	
The teachings of Jesus are too	difficult for o □	rdinary Chris	stians. □		
The Bible and church traditions	should equa	ally guide the	Christian □		

30. How strongly do you believe the following statements are true about the Christian faith? (check one box in each row)

	Very much	Much	Some	Not much	Very little
The significance (importance) of	Jesus is in □	providing sa □	vation for ou	ur future. □	
Following Christ daily in life is ne	ecessary for □	a believer.	Ω.		
Faith inside will show itself in ac	tion outside. □				
Is best seen in the life of Jesus.					
Is a private matter between God	and me. □				
The teachings of Jesus are evid	ent in my life □	e. □			

31. How strongly do you believe the following about justice? (check one box in each row)

	Very much	Much	Some	Not much	Very little
A Christian may use violent me	ans, if requir	ed, to protec	t their family □	□	
War may be justified in some in	istances. □				
It is more important to bring spi	ritual help th □	an physical ł	nelp.		
Christians need to influence so	ciety to help □	it become m □	ore just. □		
It is my Christian responsibility	to look out fo □	or the physica □	al means of	my neighbou □	ır.

32. How strongly do you believe working in the following jobs would compromise your Christian faith? (check one box in each row)

	Very much	Much	Some	Not much	Very little
Federal policeman					
Local politician					
Public school teacher					
Lawyer					
Medical doctor					
Judge					
Military service					
Prison guard					
Police officer					

33. How strongly do you believe that a Christian could participate in the following activities? (check one box in each row)

	Very much	Much	Some	Not much	Very little
Sing national anthem					
Vote in a federal election					
Observe national holidays					
Pay taxes					
Fly the national flag at home					
Serve on a criminal case jury					
Swear an oath					
Serve in military after a draft					
Business with non-Christians					
Observe war memorial days					

Church

The following questions ask about your current local church.

34. To what extent does your church serve people of these groups? (check one box in each row)

	Very	Much	Some	Not much	Very
Children					
Pre-teens					
Youth					. 🗖
Young adults					
Newly weds					
Parents of children					
Empty nesters					
Elderly					
Single adults					
Widows/ widowers					
Broken families					
Other cultures					
Single parents					
Non-churched					
Poor					

35. What percentage increase (or decrease) in attendance of your church do you expect over the next 5 years?

% increase (use negative for decrease)

36. To what extent does your church have strength in these areas? (check one box in each row)

		Family programming Youth ministry Children ministry Elderly ministry Singles ministry Preaching Welcoming Accessibility Meeting budget Vision sharing Discipleship Outreach Leadership training Sharing material resources Breaking racial barriers Breaking social barriers Assisting other churches Other – specify	Very much	Much	Some	Not much 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
--	--	--	--------------	------	------	--	--

37. How much do you think the following encouraged growth in attendance in the last five years? (check one box in each row)

Building expansion Building improvements Handicap accessibility Pavement or canopy Organizational structure Vision sharing Leadership training Family programming Youth ministry Children ministry Elderly ministry Singles ministry Singles ministry Small groups Worship Service Preaching Music Welcoming Accessibility Meeting budget Identified target group Pastor Teaching	Very much	Some	Not much 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Pastor				
Prayer				
Revival				
Reconciliation				
Missions				
Freedom from bondage				
Care to community				
Outreach to community				
Church plant(s)				
Other 1 – specify				
Other 2 – specify				

38. To what extent are these challenges that your church will likely face in the next five years? (check one box in each row)

	Very much	Much	Some	Not much	Very little
Aging members					
Competition for donations					
Blended families					
Family moving away					
Preaching	· 🗖				
Leadership					
Community acceptance					
Other - specify					. 🗆

Printed: 2007/01/18 «LeaderId» EMMC Church Leader Questionnaire 2006Mar18

39.How many years has your churcl (check one box in each ro	h organizat w)	ional struc	ture been	in place?	
	Under 1	1 to 2	2 to 5	5 to 10	Over 10
If it has been over 10 years then skip to 43	L				
40. To what extent has your own wo	rk load incr	eased or d	lecreased	since your	church
organizational structure been in	place? (che	eck one bo	x in each	row)	Ven
	much	WIGGI	oome	much	little
Increased Decreased					
41. To what extent has church life in in place? (check one box in eacl	nproved or h row)	declined s	ince your	structure h	as been
	Very	Much	Some	Not	Very
Improved	mucn			mucn	
Declined					
42. To what extent has your board o	r council w	ork load in	creased o	or decrease	d since
your church organizational struc	ture been i	n place? (check one	e box in eac	ch row)
	Very much	Much	Some	Not much	Very little
Increased					
Decreased				L ,	
Conference					,
The following ask about the Evangelical M	ennonite Mi	ssion Confe	erence.		
43. To what extent does the confere (check one box)	nce promot	te itself to t	their mem	bers?	~
	Very	Much	Some	Not	Very
14 How many times have you been	a delegate	at the EMM	Cashyan	tion or cor	und n
(full or part) term on a conference	a delegate		ic conver	how in eac	h row)
(iuii or party term on a comerence	e board or	council? (check one	DUX III Cau	11 1000)
Delegate Delegate	board or 1 time	council? (checkone s □ 3	times 4 a	or more
Delegate	■ 1 time ■ 1 term	council? (2 times 2 term	check one s □ 3 s □ 3	times \Box 4 c terms \Box 4 c	or more or more
Delegate □ 0 Terms served □ 0 45. To what extent do you understar or boards? (check one box in ea	■ board or □ 1 time □ 1 term nd the tasks ch row)	council? (2 times 2 term 5 of the foll	check one s □ 3 s □ 3 lowing co	times □ 4 c terms □ 4 c	or more or more ouncils
Delegate□0Terms served□045. To what extent do you understar or boards? (check one box in ea	the board or □ 1 time □ 1 term □ 1 term □ the tasks ch row) Very	council? (o 2 times 2 term s of the foll Much	check one s □ 3 s □ 3 lowing co Some	times □ 4 of terms □ 4 of nference co Not	or more or more ouncils Very
Delegate □ 0 Terms served □ 0 45. To what extent do you understar or boards? (check one box in ea	te board or □ 1 time □ 1 term 1 term	council? (2 times 2 term s of the foll Much	check one s	times □ 4 of terms □ 4 of nference co Not much	very
Delegate 0 Terms served 0 45. To what extent do you understar or boards? (check one box in ea General council Ministerial resource council	te board or 1 time 1 term 1 term	council? (o 2 times 2 term s of the foll Much	check one s I 3 s I 3 lowing co Some	times □ 4 of terms □ 4 of nference co Not much □ □	Very little
Delegate 0 Terms served 0 45. To what extent do you understar or boards? (check one box in ea General council Ministerial resource council Board of mission and service Ministerial council	a board or 1 time 1 term 1	council? (d 2 times 2 term of the foll Much	check one s	times □ 4 of terms □ 4 of nference co Not much □ □ □	Very little
Delegate 0 Terms served 0 45. To what extent do you understar or boards? (check one box in ea General council Ministerial resource council Board of mission and service Ministerial council	a board or 1 time 1 term 1	council? (d 2 times 2 term s of the foll Much 1 1 1 1 1 1 1 1 1 1 1 1 1	check one s	times 4 of terms 1 of terms	Very little

1

4

46. To what extent do the following help the growth of our conference? (check one box in each row)

	Very much	Much	Some	Not much	Very little
General council					
Ministerial resource council					
Board of mission and service					
Ministerial council					
Budget					
Church planting					
Overseas missions					
Vision and inspiration					
Resources sharing					
Other – specify					

47. To what extent will the following be challenges to the conference in the next 5 years? (check one box in each row)

	Very much	Much	Some	Not much	Very little
Aging members					
Funding					
Structure					
Vision					
Church planting					
Theological differences					
Generation gap					
Regional differences					
Physical separation					
Pastors shortage					
Conference leadership					
Other – specify					
					e

48. What are the strengths of our conference?

are the strengths of our cor	(chec	k one box	in each row	W)	
	Very	Much	Some	Not	Very
	much	<i>1</i> .		much	little
General council					
Ministerial resource council					
Board of mission and service					
Ministerial council					
Overseas missions					
Funding					
Structure					
Vision					
Church planting					
Theological differences					
Generation gap					
Regional differences					
Physical separation					
Pastors development					
Conference leadership					
Other – specify	D -				

Printed: 2007/01/18 «LeaderId» EMMC Church Leader Questionnaire 2006Mar18

49. To what extent do you read the following versions or portions of the *Recorder*? (check one box in each row)

	Very much	Much	Some	Not much	Very little
Print version					
On-line version					
Lead article					
Missionary updates					
Prayer guide					

50. To what extent does your church need assistance in the following areas? (check one box in each row)

,	Very much	Much	Some	Not much	Very little
Financial					
Administrative					
Organizational structure					
Policy, by-laws etc.					
Job descriptions					
Preaching or pulpit exchange					
Teaching exchange					
Leadership development					
Vision and inspiration					. 🗖
Crises help					

51. To what extent does your church receive the following from the EMMC leadership (staff, councils, board) and other EMMC churches? (check one box in each row)

	Very much	Much .	Some	Not much	Very little
Financial					
Administrative					
Organizational structure					
Policy, by-laws, etc.					
Job descriptions					
Preaching or pulpit exchange	. 📮				
Teaching exchange					
Leadership development					
Vision and inspiration					
Crises help					

Staff

The following questions ask about your church staff.

52. To what extent do you use the conference guideline to determine staff salaries? (check one box in each row)

	Very much	Much	Some	Not much	Very little
Use guidelines					

53. To what extent do you set salaries above or below the conference guidelines? (check one box in each row)

	Very	Much	Some	Not	Very
	much			much	little
Above guidelines					
Below guidelines					

54. To what extent is your pastor a shepherd, Chief Executive Officer (CEO) or manager of the church? (check one box in each row)

			,		
	Very	Much	Some	Not	Very
	much			much	little
Shepherd					
Chief Executive Officer					
Manager					

Thank you for completing the questionnaire. Your prompt assistance will allow us to have the results for the convention in July. Please mail it in the addressed envelope as soon as possible:

Eddy Rempel 30 Donker Drive, St. Thomas, Ontario N5P 4J3 (519) 913-1583 eddy@rempel.ca

```
* EMMC Growth Patterns;
* Formats
options nodate pageno=1;
options pageno=1 pagesize=52 linesize=90 date;
title1 'Masters Thesis: EMMC Growth Data';
title2 'Formats';
*proc freq 2x2 table with chi square test;
%macro freqe(dataM= Cohort, var1= teaching, var2= volume4, formatM=,
whereM=);
ods select CrossTabFreqs ChiSq;
proc freq data= &dataM;
   tables &var1 * &var2 / chisg norow nopercent;
   %if %length(&formatM) ne 0 %then %do;
      format &formatM;
   Send;
   %if %length(&whereM) ne 0 %then %do;
      where &whereM;
   %end;
  title4 "&dataM: &var1 * &var2 Distribution";
run;
%mend freqe;
* Get Median and test differences by specified class;
%macro medianp(dataM=Cohort, varM=teaching, groupM=Volume, formatM=,
whereM=);
proc means data=&dataM maxdec=2 fw=6 nmiss sum mean min p25 median p75
max;
  class &groupM;
  var &varM;
   %if %length(&formatM) ne 0 %then %do;
      format &formatM;
   %end;
   %if %length(&whereM) ne 0 %then %do;
      where &whereM;
   gend;
  title4 "Median &varM by &groupM Group";
run;
ods select KruskalWallisTest;
proc nparlway data= &dataM median wilcoxon;
  class &groupM;
  var &varM;
   %if %length(&whereM) ne 0 %then %do;
      where &whereM;
   %end:
  title4 "Test Median &varM by &groupM Group";
quit;
run;
%mend;
*%freqe (dataM=PedsfCohort,var1=medal1,var2=PB,formatM=%str(medal1
med.));
*%medianp(dataM=PedsfCohort,varM=medall,GroupM=PB,formatM=);
```

proc format;

```
value missing
         ='.'
.
other
         ='X';
value sign
low--0.000001='-'
0
               ='0'
0.000001-high ='+'
other ='X';
value $missing
'' ='.'
other
         ='X';
value region
0
         ='0 urban'
1
         ='1 rural';
```

proc format;

value pastor 1='Pastor' 2='Interim'; value region 0='TOTAL' 1='S MB' · 2='S MB' 3='W MB' 4='C MB' 5='SK' 6='ON' 7='Mexico' 8='Belize' 9='USA'; value region5f 0='TOTAL' 1='95 MB' 2='8S MB' 3='7W MB' 4='6C MB' 5='5SK' 6='40N' 7='3Mexico' 8='2Belize' 9='1USA'; value ont 0='TOTAL' 1-5,7-9='Other' 6='ON'; value region2f 0='TOTAL' 1-4='Canada' 7='Mexico' 8='Belize' 9='USA';

```
value region3f
    1-5='MB SK'
    6-9='ON US MX BE';
value region4f
    ' LATOT'=0
    1-4='Canada'
    7-9='US MX BE';
value $region
    '0'='TOTAL'
    '1'='S MB'
    '2'='S MB'
    '3'='W MB'
    '4'='C MB'
    '5'='SK'
    '6'='ON'
    '7'='Mexico'
    '8'='Belize'
    '9'='USA';
value $region2f
    '0'='TOTAL'
    '1'-'4'='Canada'
    '7'='Mexico'
    '8'='Belize'
    '9'='USA';
value $region3f
    '0'='TOTAL'
    '1'-'4'='Canada'
    '7'-'9'='US MX BE';
```

proc format;

```
value size
000-099='000-099'
100-199='100-199'
200-299='200-299'
300-399='300-399'
400-999='400-999';
value sizef
0
                 ='New'
001-099
          ='[1,99]'
100-299
          ='[100,299]'
300-high ='[300,+]';
value size3f
1-67
                ='[1,67]'
68-176
          ='[68,176]'
177-high ='[173,+]';
value size4f
000-049
          ='[00-049]'
050-099
          ='c[050,099]'
100 - 149
          ='[100,149]'
150-199
          ='[150,199]'
200-249
          ='[200,249]'
          ='[250,299]'
250-299
300-349
          ='[300,349]'
350-399
          ='[350,399]'
400-499
          ='[400,499]'
500-999
          ='[500,999]';
```

='[500,549]' 500-549 550-599 = [550, 599]'='[600,649]' 600-649 650-699 ='[650,699]' 700-749 ='[700,749]' 750-799 ='[750,799]' ='[800,849]' 800-849 850-899 ='[850,899]'; value .decade 1960-1969='1960s' 1970-1979='1970s' 1980-1989='1980s' 1990-1999='1990s' 2000-2009='2000s' 2010-2019='2010s';

proc format; value Growth 99 ='lNew' low-0 ='2Declining' 0-.10 ='3Stagnant' .10-20 ='4Growing'; *p32 p33a p33b p33c p36 p41a p41b p41c p42 p49 p59 p60 yn.; value yn 1='Yes' 2='No'; value boolean 1='Yes' 0='No'; *p15 p46a p46b p46c p46d p46e p46f p46g p46h p46i p46j p46k p46l p61a p61b p61c p61d p61e p61f p61g p61h p61i p61j much.; value much 1='V much' 2='Much' 3='Some' 4='Not much' 5='V little'; value much2f 1,2,12,13,14,23,24,25,123='V, Much' 3,4,5,34,35='Some-Lit'; value much3f 1,2,3,12,13,14,23,24,25,34,123='Much-Some' 4,5='NMuch-VLit'; *pastors survey;

proc format;

*p01 p01.; value p01f 1='0-4'

```
2='5-9'
             3='10-14'
             4='15-19'
             5='20-29'
             6='30-39'
             7='40-49'
             8='50-69'
             9='70-99'
            10='100-124'
            11='125-149'
            12='150-174'
            13='175-199'
            14='200-249'
            15='250-299'
            16='300+';
  *p12* p12.;
 value p12f
            1='ELECT'
            2='APPOINT'
            3='ELECT & APPOINT'
            12='ELECT & APPOINT'
            13='ELECT & SGT SELECT'
            23='APPOINT & SGT SELECT'
            123='ELECT & APPOINT & SGT SELECT'
            .='NA'
;
  value p12fa
            1,12,13,123='ELECT'
            .='NA'
            other='OTHER';
  *p13 p14 important.;
  value important
            1='V Important'
            2='Important'
            3='Somewhat'
            4='Unimportant'
            5='Not at all';
  *p16 q16.;
  value
            p16f
            1='0wn'
            2='Rent'
            3='R School'
            4='Other';
            p162f
  value
            1='Own'
            2,3,4='Other';
  *p18 hours.;
  value p18f
            1='0-5'
             2='5-10'
             3='10-15'
             4='15-20'
             5='20 +';
  value p182f
             1,2,3='0-15'
             4,5='15+';
  *p25a
            p25b p25c p25d p25e
                                     p25f q25.;
```

```
value p19f
            1='1'
            2,3='2 or 3';
 value p19Xf
            .0-.4999='(0-50%)'
            .5-.7999='[50-80%)'
            .8-high ='[80%+)';
 value p19X2f
            .0-.7999='(0-80%)'
            .8-high ='[80%+)';
 value p20f
            .,0,1='0/1 '
            2-high='2+';
 value p25f
            1 = 'Mem/C'
            2='Board'
            3='Pastor'
            4='Min tm'
            5='Treas';
value p25pastor
            3='Pastor'
            1,2,4,5,12,24,25,45='other';
 value p25board
            2,12,24,25='Board'
            1,3,4,5,45='other';
 value p25member
            1,12='Member'
            2,24,25,3,4,5,45='other';
 value p25team
            4,24,45='Team'
            1,12,2,25,3,5='other';
 *p27 p27.;
 value p27f
            1='1 body'
            2='2 group';
 *p31 p31.;
 value p31f
            1='0-1 yr'
            2='1-5 yrs'
            3='5-10 yrs'
            4='10-15 yrs'
            5='15+ yrs';
 value p312f
            1,2='0-5 yrs'
            3,4,5='5+ yrs';
  *p34 p34.;
 value p34f
            1='ONE tool'
            2='0 or many';
value p35f
            1='Wagner'
            2='Network'
            3='Blackaby'
            4='Unknown';
value p352f
            1,2,3,4='SGA'
            .,0='none';
```

```
*p39a p39b p39.;
  value p39f
             1='0 hrs'
             2='0-10 hrs'
             3='10-20 hrs'
             4='20-40 hrs'
             5='40+ hrs';
  value p392f
             1,2,3,4='0-40 hrs'
            5='40+ hrs';
  *p40 p40.;
  value p40f
            1='2 wk'
            2='3 wks'
             3='4 wks'
             4='5 wks'
             5='6+ wks';
  value p402f
             1='2 wk'
            2,3,4,5='3+ wks';
  *p43 p43.;
  value p43f
            1='current'
            2='EMMC'
            3='Mennonite'
            4='Non-Men';
  *p45a
            p45b p45c p45d p45e
                                    p45f p45g p45h p45i p45j p45k p45l
p45m p45n
            p450 p45p p45q p45.;
  value p45f
             1='Self'
            2='Delegate to staff'
            3='Delegate to lay people';
  value p452f
            1,12,13,123='Self'
            2,3,23='Delegate';
  *p47 p47.;
  value p47f
            1='Pews'
            2='Mixture'
            3='Chairs';
  value p472f
             1='Pews'
            2,3='Chairs';
  *p50a p50b p50c p50.;
  value p50f
             1='Daily'
            2='Weekly'
            3='Monthly'
            • 4='Annually'
             5='Hardly';
  value p502f
             1,2='Weekly'
            3,4,5='Monthly-';
  value p51f
            0='no $'
            1-high='yes $';
```

```
*p53 p52.;
 value p52f
            1='% budget'
            2='$/member'
            3='EMMC Need'
            4='Other';
 value p55xf
                  ='no $'
            0
            .001-999.999='<$1000'
            1000-high='$1000+';
*leaders survey;
 proc format;
    value age
             low-1950='55+ yrs'
            1951-1970='35-54 yrs'
            1971-1987='18-34 yrs'
            1988-high='< 18 yrs';
    value age2f
            low-1945='60+ yrs'
            1946-1955='50-59 yrs'
            1956-1965='40-49 yrs'
            1966-1975='30-39 yrs'
            1976-1985='20-29 yrs'
            1986-high='< 20 yrs';
 value age3f
            low-1940='65+ yrs'
            1941-1960='45-64 yrs'
            1961-1970='35-44 yrs'
            1971-1985='20-34 yrs'
            1986-high='< 20 yrs';
 value 101age
            low-36
                       ='1-36'
            37-50 = '37-50'
                        ='51+';
            51-high
 *102 sex.; value sex
            1='2Female'
            2='1Male';
            *103 103.;
 value 103f
            1='Single'
            2='Married'
            3='Separated'
            4='Divorced'
            5='Widowed';
 value 1032f
            2='Married'
            1,3,4,5='other';
  *104 105 ethnic.;
 value language
            1,12,14,15,124,145,146='P.dietsch'
            2='English'
            3='French'
            4='German'
            5='Dutch'
```

```
6='Spanish'
            7='Native'
            8='OTHER';
  value 104PD
            1,12,14,15,124,145,146='P.dietsch'
            2-8='other';
  value ethnic
            1,12,14,15,124,145,146='Menno.'
            2='English'
            3='French'
            4,45,48='German'
            5='Dutch'
            6='Spanish'
            7='Native'
            8='OTHER';
  value 105Menno
            1,12,14,15,124,145,146='Menno.'
            2,3,4,45,48,5,6,7,8='OTHER';
  *106 106.;
  value 106f
            1='Canada'
            2='USA'
            3='Mexico'
            4='Belize'
            5='Other';
  *107 107.;
  value 107f
                        ='None'
            .,1
            2
                        ='high'
            23,3 ='Trade d'
            234,24,34,4 ='Other d'
            245,45,5 ='<bachelor'
            256,26,56,6 ='Bachelor'
            67,7 ='>bachelor'
            268,28,68,8 ='Masters '
            9
                        ='Medicine'
            10
                        ='Doctorate';
  value 107un
            .,0,1,2,23,3,234,24,34,4,245,45,5 ='2<bachelor'
            256,26,56,6,67,7,268,28,68,8,9,10 ='1University';
  value 108f
                  ='none'
            .,0
            1
                  ='Attended'
            2
                  ='diploma'
            3
                  ='Bachelor'
                  ='Masters '
            4
            5
                  ='Doctorate';
proc format;
  value 108u
            0,1,2='<bachelor'
            3,4,5='bachelor+';
  *109 109.;
  value 109f
            1,12='always'
            2,23='parents'
            3,34='on own'
            4
                  ='friends'
```

```
5
               ='hired ';
value 1092f
          1,2,12,23='parents'
          3,4,34='on own'
          5
               ='hired ';
 *110 110.;
value 110f
          1='[0-1 yr)'
          2='[1-2 yr)'
          3='[2-5 yrs)'
          4='[5-10 yr)'
          5='[10-20 y)'
          6='[20+ yrs)';
value 111f
          1,2,3='top 3'
          ., 0='unranked';
*112 great.;
value great
          1='V great'
          2='Great'
          3='Somewhat'
          4='Hardly'
          5='Not@All';
*114 114.;
value Role
          1='1SrPas'
          2='2Pastor'
          3='3Board/c'
          4='40ther';
value 114f
          1='Board'
          2='Council'
          3='Minist.l'
          4='Other'
          12='Bd&Cncil'
          13='Bd, Min'
         · 14='Bd, Other'
          23='Coun, Min'
          123='Bd, Co, Mn';
*115 116 117 lhours.;
value lhours
          1='(<5 hrs)'
 1
          2='[5-10 h)'
          3='[10-20 h)'
          4='[15-20 h)'
          5='[20 h +)';
value lhour2f
          1='(<5 hrs)'
          2,3,4='[5-20 h)'
          5='[20 h +)';
value lhour3f
          1='(<5 hrs)'
          2,3,4,5='[5 h +)';
value lhour4f
          1,2='(<10 hrs)'.
          3,4,5='[10 h +)';
*118 118.;
```

```
value 118f
            1='(<5 min)'
            2='[5-10 m)'
            3='[10-15 m)'
            4='[15-20 m)'
            5='[20-30 m)'
            6='[30-45 m)'
            7='[45-60 m)'
            8='[60 min+)';
 value 1182f
            1,2='(<10 m)'
            3,4='[10-20 m)'
            5,6,7,8='[20 m+)';
 value 1183f
            1,2='(<10 m)'
            3,4,5,6,7,8='[10 m+)';
 value 1184f
            1,2,3,4='(<20 m)'
            5,6,7,8='[20 m+)';
 *125 125.;
 value 125f
            1='ev 1 yr'
            2='ev 2 yr'
            3='ev 5 yr'
            4='Never';
 value 1252f
            14,1='ev 1 yr'
            2,3='ev 5 yr'
            4='Never';
 *139 139.;
 value 139f
            1='(< 1)'
            2='[1 - 2)'
            3='[2 - 5)'
            4='[5 - 10)'
            5='[> 10)';
 value 1392f
            1,2,3,4='(<10)'
            5='[10+)';
*144b Terms.;
  value terms
            1='0 terms'
            2='1 term'
            3='2 terms'
            4='3 terms'
            5='4+ term';
 value 144f
            1='0 terms'
            2='1 term'
            3='2 terms'
            4='3 terms'
            5='4+ terms';
 value 1442f
            1='0 times/terms'
            2-5='1+ times/terms';
```

* EMMC Growth Patterns; * Import EMMC Records; libname SasData 'C:\Shared Documents and Such\Education\McMaster School Thesis Project\EMMC EMC Attendance Data'; options nodate pageno=1; options pageno=1 pagesize=52 linesize=90 date; title1 'Masters Project: EMMC Growth Data'; title2 'EMMC Records of Attendance and Membership'; * Import EMC Data; title3 'EMC'; proc import datafile="C:\Shared Documents and Such\Education\McMaster School Thesis Project\EMMC EMC Attendance Data\EMC data.xls" out=emc replace; run; data emc; set emc; keep name region prov conf a1900-a2005 m1900-m2005; Conf='EMC'; A2004=A2003; *I do not have 2004 attendance data; A2005=A2003; *I do not have 2005 attendance data; M2004=M2003; *I do not have 2004 membership data; M2005=M2003; *I do not have 2005 membership data; label name ='Church Name' region ='Assigned Geographic Region' prov ='Province, State, or District' conf ='Conference' - a1993 ='Attendance 1993' a1994 ='Attendance 1994' a1995 ='Attendance 1995' a1996 ='Attendance 1996' a1997 ='Attendance 1997' a1998 ='Attendance 1998' a1999 ='Attendance 1999' a2000 ='Attendance 2000' a2001 ='Attendance 2001' a2002 ='Attendance 2002' a2003 ='Attendance 2003' a2004 ='Attendance 2004 - actually 2003' a2005 ='Attendance 2005 - actually 2003' m1957 ='Membership 1957' m1959 ='Membership 1959' m1960 ='Membership 1960' m1964 ='Membership 1964' m1965 ='Membership 1965' m1966 ='Membership 1966' m1969 ='Membership 1969' m1970 ='Membership 1970' m1971 ='Membership 1971' m1972 ='Membership 1972'

```
m1973 ='Membership 1973'
m1974 ='Membership 1974'
m1975 ='Membership 1975'
m1976 ='Membership 1976'
m1977 ='Membership 1977'
m1978 ='Membership 1978'
m1979 ='Membership 1979'
m1980 ='Membership 1980'
m1981 ='Membership 1981'
m1982 ='Membership 1982'
m1983 ='Membership 1983'
m1984 ='Membership 1984'
m1985 ='Membership 1985'
m1986 ='Membership 1986'
m1987 ='Membership 1987'
m1988 ='Membership 1988'
m1989 ='Membership 1989'
m1990 ='Membership 1990'
m1991 ='Membership 1991'
m1992 ='Membership 1992'
m1993 ='Membership 1993'
m1994 ='Membership 1994'
m1995 ='Membership 1995'
m1996 ='Membership 1996'
m1997 ='Membership 1997'
m1998 ='Membership 1998'
m1999 ='Membership 1999'
m2000 ='Membership 2000'
m2001 ='Membership 2001'
m2002 ='Membership 2002'
m2003 ='Membership 2003'
m2004 ='Membership 2004'
m2005 ='Membership 2005';
```

```
run;
```

proc sort data=emc; by Region Prov Name; run;

* Import EMMC Data; title3 'EMMC'; proc import datafile="C:\Shared Documents and Such\Education\McMaster School\ Thesis Project\Data\emmc data 2006Oct30.xls" out=emmc replace; run;

```
data emmc;
  set emmc;
  keep R ChurchId Name Region DisfunctB Notes MotherChurch1
MotherChurch2
     StartYear EndYear D1-D4 A2005D1-A2005D4 AsM2004 A1900-A2005
M1900-M2005;
     Conf='EMMC';
     if r=1 then r=2; *these deceased churches are part of region 2;
     label
```

r ='Region Code' ChurchId='Church Code' name ='Church Name' region ='Assigned Geographic Region' disfunctB='Indicates Church is now disfunct' Notes ='Notes from Gin' MotherChurch1='Planting church 1' MotherChurch2='Planting church 2' StartYear='First year of data' ='Last year of data' EndYear D1='ChurchId of church 1 planted from 2000 to 2005' D2='ChurchId of church 2 planted from 2000 to 2005' D3='ChurchId of church 3 planted from 2000 to 2005' D4='ChurchId of church 4 planted from 2000 to 2005' A2005D1='# of D1 Att 2005 atttributed to this church' A2005D2='# of D2 Att 2005 atttributed to this church' A2005D3='# of D3 Att 2005 atttributed to this church' A2005D4='# of D4 Att 2005 atttributed to this church' AsM2004 ='Associate Membership 2004' a1968 ='Attendance 1968' a1969 ='Attendance 1969' a1977 ='Attendance 1977' a1979 ='Attendance 1979' a1980 ='Attendance 1980' a1981 ='Attendance 1981' a1982 ='Attendance 1982' a1983 ='Attendance 1983' a1984 ='Attendance 1984' a1985 ='Attendance 1985' a1986 ='Attendance 1986' a1987 ='Attendance 1987' a1988 ='Attendance 1988' a1989 ='Attendance 1989' a1990 ='Attendance 1990' a1991 ='Attendance 1991' a1992 ='Attendance 1992' a1993 ='Attendance 1993' a1994 ='Attendance 1994' a1995 ='Attendance 1995' a1996 ='Attendance 1996' a1997 ='Attendance 1997' a1998 ='Attendance 1998' a1999 ='Attendance 1999' a2000 ='Attendance 2000' a2001 ='Attendance 2001' a2002 ='Attendance 2002' a2003 ='Attendance 2003' a2004 ='Attendance 2004' a2005 ='Attendance 2005' m1961 ='Membership 1961' m1962 ='Membership 1962' m1968 ='Membership 1968' m1969 ='Membership 1969' m1970 ='Membership 1970' m1973 ='Membership 1973' m1975 ='Membership 1975' m1976 ='Membership 1976'

```
m1977 ='Membership 1977'
      m1979 ='Membership 1979'
      m1980 ='Membership 1980'
      m1981 ='Membership 1981'
      m1982 ='Membership 1982'
      m1983 ='Membership 1983'
      m1984 ='Membership 1984'
      m1985 ='Membership 1985'
      m1986 ='Membership 1986'
      m1987 ='Membership 1987'
      m1988 ='Membership 1988'
      m1989 ='Membership 1989'
      m1990 ='Membership 1990'
      m1991 ='Membership 1991'
      m1992 ='Membership 1992'
      m1993 ='Membership 1993'
      m1994 ='Membership 1994'
      m1995 ='Membership 1995'
      m1996 ='Membership 1996'
      m1997 ='Membership 1997'
      m1998 ='Membership 1998'
      m1999 ='Membership 1999'
      m2000 ='Membership 2000'
      m2001 ='Membership 2001'
      m2002 ='Membership 2002'
      m2003 ='Membership 2003'
      m2004 ='Membership 2004'
      m2005 ='Membership 2005';
proc sort data=emmc;
```

run;

run;

run;

run;

by r churchId;

data sasdata.emc; set emc;

data sasdata.emmc; set emmc;

```
* EMMC Growth Patterns;
*EMMC Records Pre-Analysis;
libname SasData 'C:\Shared Documents and Such\Education\McMaster
School\
Thesis Project\Data\SASData';
options nodate pageno=1;
```

options pageno=1 pagesize=52 linesize=90 date;

title1 'Masters Project: EMMC Growth Data'; title2 'EMMC Records of Attendance and Membership';

* Import EMC Data; title3 'EMC';

data emc;

set sasdata.emc;
run;

```
* Import EMMC Data;
title3 'EMMC';
```

data emmc;

set sasdata.emmc;
run;

```
proc sort data=emmc;
  by r ChurchId;
run;
```

```
data emmc2;
merge emmc (in=e)
SasData.pastors (in=p keep=ChurchId p02a p02b p03a p03b);
by ChurchId;
if e;
    if M2004=. then M2004=p03a; if M2005=. then M2005=p03b;
    if A2004=. then A2004=p02a; if A2005=. then A2005=p02b;
```

```
run;
```

* Total and Regional outcomes sums and annual change; title3 'Total & Regional outcomes (Att, Mem, & churches) sums & annual change';

```
proc sort data=emmc2;
  by r;
run;
```

proc means data=emmc2 maxdec=2 fw=4 N noprint;
var A2005;

output out=ATotal sum(A1968 A1969 A1977 A1979-A2005)=A1968 A1969 A1977 A1979-A2005; output out=MTotal sum (M1961 M1962 M1968-M1970 M1973 M1975 M1976 M1977 M1979-M2005) =M1961 M1962 M1968-M1970 M1973 M1975 M1976 M1977 M1979-M2005; output out=NTotal n(M1961 M1962 A1968 A1969 M1970 M1973 M1975 M1976 A1977 A1979-A2005)= N1961 N1962 N1968 N1969 N1970 N1973 N1975 N1976 N1977 N1979-N2005; run; proc means data=emmc2 maxdec=2 fw=4 N noprint; var A2005; by r; output out=Aregion sum(A1968 A1969 A1977 A1979-A2005)=A1968 A1969 A1977 A1979-A2005; output out=Mregion sum (M1961 M1962 M1968-M1970 M1973 M1975 M1976 M1977 M1979 - M2005) =M1961 M1962 M1968-M1970 M1973 M1975 M1976 M1977 M1979-M2005; output out=Nregion n(M1961 M1962 A1968 A1969 M1970 M1973 M1975 M1976 A1977 A1979-A2005)= N1961 N1962 N1968 N1969 N1970 N1973 N1975 N1976 N1977 N1979-N2005; run; data Aregion; set Aregion ATotal; if r=. then do; r=0; Region='Total'; end; run; data Mregion; set Mregion MTotal; if r=. then do; r=0; Region='Total'; end; run; data Nregion; set Nregion NTotal; if r=. then do; r=0; Region='Total'; end; run; data region; merge Aregion Mregion Nregion; by region; drop _FREQ _TYPE_; label region='Region'; run;

title4 'Regional Total Attendance, Membership, Churches';

proc print data=region;

format r region.;
run;

* annual increase; data region; set region; *Membership; * NOTE: some regions have 0 so %increases are not defined; if M1961 > 0 then M6162=((((M1962-M1961)/M1961)+1)**(1/1)-1); else M6162=.; if M1962 > 0 then M6268=((((M1968-M1962)/M1962)+1)**(1/6)-1); if M1968 > 0 then M6869=((((M1969-M1968)/M1968)+1)**(1/1)-1); if M1969 > 0 then M6970=((((M1970-M1969)/M1969)+1)**(1/1)-1); if M1970 > 0 then M7073=((((M1973-M1970)/M1970)+1)**(1/3)-1); if M1973 > 0 then M7375 = (((M1975 - M1973)/M1973) + 1) * (1/2) - 1);if M1975 > 0 then M7576=((((M1976-M1975)/M1975)+1)**(1/1)-1); if M1976 > 0 then M7677=((((M1977-M1976)/M1976)+1)**(1/1)-1); if M1977 > 0 then M7779=((((M1979-M1977)/M1977)+1)**(1/2)-1); if M1979 > 0 then M7980 = (((M1980 - M1979)/M1979) + 1) * * (1/1) - 1);if M1980 > 0 then M8081=((((M1981-M1980)/M1980)+1)**(1/1)-1); if M1981 > 0 then M8182=((((M1982-M1981)/M1981)+1)**(1/1)-1); if M1982 > 0 then M8283 = (((M1983 - M1982)/M1982) + 1) * (1/1) - 1);if M1983 > 0 then M8384=((((M1984-M1983)/M1983)+1)**(1/1)-1); if M1984 > 0 then M8485=((((M1985-M1984)/M1984)+1)**(1/1)-1); if M1985 > 0 then M8586=((((M1986-M1985)/M1985)+1)**(1/1)-1); if M1986 > 0 then M8687 = (((M1987 - M1986)/M1986) + 1) * (1/1) - 1);if M1987 > 0 then M8788=((((M1988-M1987)/M1987)+1)**(1/1)-1); if M1988 > 0 then M8889=((((M1989-M1988)/M1988)+1)**(1/1)-1); if M1989 > 0 then M8990=((((M1990-M1989)/M1989)+1)**(1/1)-1); if M1990 > 0 then M9091 = (((M1991 - M1990)/M1990) + 1) * * (1/1) - 1);if M1991 > 0 then M9192=((((M1992-M1991)/M1991)+1)**(1/1)-1); if M1992 > 0 then M9293=((((M1993-M1992)/M1992)+1)**(1/1)-1); if M1993 > 0 then M9394=((((M1994-M1993)/M1993)+1)**(1/1)-1); if M1994 > 0 then M9495=((((M1995-M1994)/M1994)+1)**(1/1)-1); if M1995 > 0 then M9596=((((M1996-M1985)/M1995)+1)**(1/1)-1); if M1996 > 0 then M9697=((((M1997-M1986)/M1996)+1)**(1/1)-1); if M1997 > 0 then M9798=((((M1998-M1987)/M1997)+1)**(1/1)-1); if M1998 > 0 then M9899=((((M1999-M1988)/M1998)+1)**(1/1)-1); if M1999 > 0 then M9900=((((M2000-M1999)/M1999)+1)**(1/1)-1); if M2000 > 0 then M0001 = (((M2001 - M2000)/M2000) + 1) * (1/1) - 1);if M2001 > 0 then M0102=((((M2002-M2001)/M2001)+1)**(1/1)-1); if M2002 > 0 then M0203=((((M2003-M2002)/M2002)+1)**(1/1)-1); if M2003 > 0 then M0304 = (((M2004 - M2003)/M2003) + 1) * (1/1) - 1);if M2004 > 0 then M0405 = (((M2005 - M2004) / M2004) + 1) * (1/1) - 1);* Attendance: if A1968 > 0 then A6869=((((A1969-A1968)/A1968)+1)**(1/1)-1); if A1969 > 0 then A6977=((((A1977-A1969)/A1969)+1)**(1/8)-1); if A1977 > 0 then A7779=((((A1979-A1977)/A1977)+1)**(1/2)-1); if A1979 > 0 then A7980=((((A1980-A1979)/A1979)+1)**(1/1)-1); if A1980 > 0 then A8081=((((A1981-A1980)/A1980)+1)**(1/1)-1); if A1981 > 0 then A8182=((((A1982-A1981)/A1981)+1)**(1/1)-1); if A1982 > 0 then A8283=((((A1983-A1982)/A1982)+1)**(1/1)-1); if A1983 > 0 then A8384=((((A1984-A1983)/A1983)+1)**(1/1)-1); if A1984 > 0 then A8485=((((A1985-A1984)/A1984)+1)**(1/1)-1); if A1985 > 0 then A8586=((((A1986-A1985)/A1985)+1)**(1/1)-1);

if	A1986	>	0	then	A8687=((((A1987-A1986)/A1986)+1)**(1/1)-1);
if	A1987	>	0	then	A8788=((((A1988-A1987)/A1987)+1)**(1/1)-1);
if.	A1988	>	0	then	A8889=((((A1989-A1988)/A1988)+1)**(1/1)-1);
if	A1989	>	0	then	A8990=((((A1990-A1989)/A1989)+1)**(1/1)-1):
if	A1990	>	0	then	A9091 = (((A1991 - A1990) / A1990) + 1) * * (1/1) - 1):
if	A1991	>	0	then	A9192 = ((((A1992 - A1991) / A1991) + 1) * * (1/1) - 1)
if	A1992	>	0	then	A9293 = ((((A1993 - A1992)/A1992) + 1) * * (1/1) - 1)
i f	A1993	>	n	then	$\Delta 9394 = (((\Delta 1994 - \Delta 1993) / \Delta 1993) + 1) + (1/1) - 1),$
if	A1991	5	ñ	then	$\Lambda 9 0 9 4 - (((\Lambda 1994 \Lambda 1993)/\Lambda 1993) + 1) + (1/1) + 1)$
i f	71005	2	ñ	thon	$A_{3}A_{3}B_{3} = (((A_{1}B_{3}B_{3} - A_{1}B_{3}B_{4})/A_{1}B_{3}B_{4}) + 1) * (1/1) - 1);$
i f	71006	<	0	thon	$A_{3} = (((A_{1}) = 0 = A_{1}) = A_{3} = (A_{1}) = A_{3} = A$
 	A1990	<	0	then	$A_{303} = (((A_{133} - A_{133}) - A_{133}) + 1)^{(1/1)} = 1);$
1 F	A1000	<	0	then	A9/90 = (((A1990 - A199/)/A199/) + 1) * (1/1) - 1);
1 F	A1990	~	0	then the	A9899=((((A1999-A1998)/A1998)+1)**(1/1)-1);
11	A1999	>	0	then	A9900=((((A2000-A1999)/A1999)+1)**(1/1)-1);
11	A2000	>	0	tnen	A0001 = (((A2001 - A2000) / A2000) + 1) * * (1/1) - 1);
11	AZUUI	>	0	then	A0102 = ((((A2002 - A2001)/A2001) + 1) * * (1/1) - 1);
lI	A2002	>	0	then	A0203 = (((A2003 - A2002)/A2002) + 1) * (1/1) - 1);
lİ	A2003	>	0	then	A0304 = (((A2004 - A2003)/A2003) + 1) * (1/1) - 1);
lÍ	A2004	>	0	then	A0405 = (((A2005 - A2004) / A2004) + 1) * (1/1) - 1);
# (hurche	es;	~		
11	N1961	>	0	then	N6162 = (((N1962 - N1961) / N1961) + 1) * * (1/1) - 1);
lI	N1962	>	0	then	N6268 = (((N1968 - N1962) / N1962) + 1) * (1/6) - 1);
lI	N1968	>	0	then	N6869 = (((N1969 - N1968) / N1968) + 1) * (1/1) - 1);
lİ	N1969	>	0	then	N6970 = (((N1970 - N1969) / N1969) + 1) * (1/1) - 1);
if	N1970	>	0	then	N7073 = (((N1973 - N1970) / N1970) + 1) * (1/3) - 1);
if	N1973	>	0	then	N7375 = (((N1975 - N1973)/N1973) + 1) * (1/2) - 1);
if	N1975	>	0	then	N7576 = (((N1976 - N1975) / N1975) + 1) * * (1/1) - 1);
if	N1976	>	0	then	N7677 = (((N1977 - N1976)/N1976) + 1) * (1/1) - 1);
if	N1977	>	0	then	N7779 = ((((N1979 - N1977)/N1977) + 1) * * (1/2) - 1);
if	N1979	>	0	then	N7980=((((N1980-N1979)/N1979)+1)**(1/1)-1);
if	N1980	>	0	then	N8081=((((N1981-N1980)/N1980)+1)**(1/1)-1);
if	N1981	>	0	then	N8182=((((N1982-N1981)/N1981)+1)**(1/1)-1);
if	N1982	>	0	then	N8283=((((N1983-N1982)/N1982)+1)**(1/1)-1);
if	N1983	>	0	then	N8384=((((N1984-N1983)/N1983)+1)**(1/1)-1);
if	N1984	>	0	then	N8485=((((N1985-N1984)/N1984)+1)**(1/1)-1);
if	N1985	>	0	then	N8586=((((N1986-N1985)/N1985)+1)**(1/1)-1);
if	N1986	>	0	then	N8687 = (((N1987 - N1986) / N1986) + 1) * (1/1) - 1);
if	N1987	>	0	then	N8788=((((N1988-N1987)/N1987)+1)**(1/1)-1);
if	N1988	>	0	then	N8889=((((N1989-N1988)/N1988)+1)**(1/1)-1);
if	N1989	>	0	then	N8990 = (((N1990 - N1989) / N1989) + 1) * (1/1) - 1);
if	N1990	>	0	then	N9091 = (((N1991 - N1990) / N1990) + 1) * * (1/1) - 1);
if	N1991	>	0	then	N9192=((((N1992-N1991)/N1991)+1)**(1/1)-1);
if	N1992	>	0	then	N9293=((((N1993-N1992)/N1992)+1)**(1/1)-1);
if	N1993	>	0	then	N9394 = (((N1994 - N1993) / N1993) + 1) * * (1/1) - 1);
if	N1994	>	0	then	N9495 = (((N1995 - N1994) / N1994) + 1) * * (1/1) - 1);
if	N1995	>	0	then	N9596=((((N1996-N1995)/N1995)+1)**(1/1)-1);
if	N1996	>	0	then	N9697 = (((N1997 - N1996) / N1996) + 1) * * (1/1) - 1):
if	N1997	>	0	then	N9798=((((N1998-N1997)/N1997)+1)**(1/1)-1):
if	N1998	>	0	then	N9899=((((N1999-N1998)/N1998)+1)**(1/1)-1).
if	N1999	>	0	then	N9900=((((N2000-N1999)/N1999)+1)**(1/1)-1).
if	N2000	>	0	then	N0001 = (((N2001 - N2000) / N2000) + 1) * (1/1) - 1)
if	N2001	>	0	then	N0102 = (((N2002 - N2001) / N2001) + 1) * (1/1) - 1)
if	N2002	>	0	then	N0203 = (((N2003 - N2002)/N2002) + 1) * (1/1) - 1)
if	N2003	>	0	then	NO304 = (((N2004 - N2003) / N2003) + 1) * (1/1) - 1)
i f	N2004	>	n	then	N0405 = (((N2005 - N2004) / N2004) + 1) * (1/1) - 1);
		-	~	~ * * ~ * * *	10100 (((112000 112004)/112004)+1) ··· (1/1)-1);

run;

+

data region;
 set region;
 label

M6162	= 61-62	oio	gain	Membership'
M6268	='62-68	0 ^j O	gain	Membership'
M6869	='68-69	3	gain	Membership'
M6970	='69-70	8	gain	Membership'
M7073	= 70-73	90	gain	Membership'
M7375	= 73-75	oio	gain	Membership'
M7576	= 75-76	0¦0	gain	Membership'
M7677	='76-77	3	gain	Membership'
M7779	= '77-79	20	gain	Membership'
M7980	= 79-80	8	gain	Membership'
M8081	='80-81	Oio	gain	Membership'
M8182	='81-82	olo	gain	Membership'
M8283	='82-83	8	gain	Membership'
M8384	='83-84	30	gain	Membership'
M8485	= 84-85	es es	gain	Membership'
M8586	='85-86	0i0	gain	Membership'
M8687	='86-87	90	gain	Membership'
M8788	='87-88	3	gain	Membership'
M8889	='88-89	B	gain	Membership'
M8990	='89-90	oło	gain	Membership'
M9091	='90-91	oio	gain	Membership'
M9192	='91-92	olo	gain	Membership'
M9293	='92-93	8	gain	Membership'
M9394	='93-94	Qio	gain	Membership'
M9495	='94-95	8	gain	Membership'
M9596	='95-96	olo	gain	Membership'
M9697	='96-97	90	gain	Membership'
M9798	='97-98	8	gain	Membership'
M9899	='98-99	38	gain	Membership'
M9900	='99-00	es es	gain	Membership'
M0001	='00-01	olo	gain	Membership'
M0102	='01-02	elo ,	gain	Membership'
M0203	='02-03	30	gain	Membership'
M0304	='03-04	30	gain	Membership'
M0405	='04-05	ojo	gain	Membership'
A6869	='68-69	8	gain	Attendance'
A6977	≓' 69-77	8	gain	Attendance'
A7779	='77-79	8	gain	Attendance'
A7980	-= 79-80	8	gain	Attendance'
A8081	='80-81	oio	gain	Attendance'
A8182	='81-82	용	gain	Attendance'
A8283	='82-83	号	gain	Attendance'
A8384	='83-84	B	gain	Attendance'
A8485	= 84-85	0;0	gain	Attendance'
A8586	='85-86	Oi0	gain	Attendance'
A8687	='86-87	ofo	gain	Attendance'
A8788	='87-88	olo	gain	Attendance'
A8889	='88-89	8	gain	Attendance'
A8990	= 89-90	ofo	gain	Attendance
A9091	='90-91	oio	gain	Attendance'
A9192	='91-92	0f0	gain	Attendance'
A9293	='92-93	olo	gain	Attendance'

A9394	='93-94	olo	gain	At	tendance'
A9495	='94-95	8	gain	At	tendance'
A9596	='95-96	3	gain	At	tendance'
A9697	= 96-97	olo	gain	At	tendance'
A9798	= '97-98	olo	gain	At	tendance'
A9899	='98-99	20	gain	At	tendance'
A9900	='99-00	010	gain	At	tendance'
A0001	='00-01	20	gain	At	tendance'
A0102	='01-02	olo	gain	At	tendance'
A0203	='02-03	oio	gain	At	tendance'
A0304	='03-04	050	gain	At	tendance'
A0405	='04-05	90	gain	At	tendance'
			2		
N6162	='61-62	olo	gain	#	Churches'
N6268	='62-68	oio	gain	#	Churches'
N6869	='68-69	00	gain	#	Churches'
N6970	='69-70	30	gain	#	Churches'
N7073	='70-73	20	gain	#	Churches'
N7375	= 73-75	99	gain	#	Churches'
N7576	= 75-76	oio	gain	#	Churches'
N7677	='76-77	olo	gain	#	Churches'
N7779	= '77-79	olo	gain	#	Churches'
N7980	= 79-80	3	gain	#	Churches'
N8081	= 80-81	olo	gain	#	Churches'
N8182	= 81-82	oio	gain	#	Churches'
N8283	='82-83	olo	gain	#	Churches'
N8384	='83-84	3	gain	#	Churches'
N8485	= 84-85	20	gain	#	Churches'
N8586	= 85-86	oio	gain	#	Churches'
N8687	= 86-87	oio	gain	#	Churches'
N8788	='87-88	8	gain	#	Churches'
N8889	='88-89	olo	gain	#	Churches'
N8990	='89-90	8	gain	#	Churches!
N9091	= 90-91	oio	gain	#	Churches'
N9192	='91-92	oio	gain	#	Churches'
N9293	='92-93	ofo	gain	#	Churches'
N9394	='93-94	0%	gain	#	Churches'
N9495	= 94-95	33	gain	#	Churches'
N9596	= 95-96	ofo	gain	#	Churches'
N9697	= 96-97	oio	gain	#	Churches'
N9798	='97-98	of0	gain	#	Churches'
N9899	='98-99	30	gain	#	Churches'
N9900	='99-00	용	gain	#	Churches'
N0001	= * 00-01	oio	gain	#	Churches'
N0102	='01-02	oio	gain	#	Churches'
N0203	='02-03	olo	gain	#	Churches'
N0304	='03-04	olo	gain	#	Churches'
N0405	='04-05	8	gain	#	Churches';

run;

title4 'EMMC Regional Membership Data';
proc print data=region;
var r M1961 M1962 M1968-M1970 M1973 M1975 M1976 M1977 M1979M2005;
format r region.;
run;

proc print data=region; var r M6162 M6268 M6869 M6970 M7073 M7375 M7576 M7677 M7779 M7980 M8081 M8182 M8283 M8384 M8485 M8586 M8687 M8788 M8889 M8990 M9091 M9192 M9293 M9394 M9495 M9596 M9697 M9798 M9899 M9900 M0001 M0102 M0203 M0304 M0405; M6162 M6268 M6869 M6970 M7073 M7375 format M7576 M7677 M7779 M7980 M8081 M8182 M8283 M8384 M8485 M8586 M8687 M8788 M8889 M8990 M9091 M9192 M9293 M9394 M9495 M9596 M9697 M9798 M9899 M9900 M0001 M0102 M0203 M0304 M0405 6.3 r region.; run; title4 'EMMC Regional Attendance Data'; proc print data=region; var r A1968 A1969 A1977 A1979-A2005; format r region.; run; proc print data=region; var r A6869 A6977 A7779 A7980 A8081 A8182 A8283 A8384 A8485 A8586 A8687 A8788 A8889 A8990 A9091 A9192 A9293 A9394 A9495 A9596 A9697 A9798 A9899 A9900 A0001 A0102 A0203 A0304 A0405; A6869 A6977 A7779 A7980 A8081 A8182 A8283 A8384 format A8485 A8586 A8687 A8788 A8889 A8990 A9091 A9192 A9293 A9394 A9495 A9596 A9697 A9798 A9899 A9900 A0001 A0102 A0203 A0304 A0405 6.3 r region.; run; title4 'EMMC Regional Number of Churches'; proc print data=region; N1961 N1962 N1968 N1969 N1970 N1973 N1975 N1976 N1977 var r N1979-N2005; format r region.; run; proc print data=region; var r N6162 N6268 N6869 N6970 N7073 N7375 N7576 N7677 N7779 N7980 N8081 N8182 N8283 N8384 N8485 N8586 N8687 N8788 N8889 N8990 N9091 N9192 N9293 N9394 N9495 N9596 N9697 N9798 N9899 N9900 N0001 N0102 N0203 N0304 N0405; format N6162 N6268 N6869 N6970 N7073 N7375 N7576 N7677 N7779 N7980 N8081 N8182 N8283 N8384 N8485 N8586 N8687 N8788 N8889 N8990 N9091 N9192 N9293 N9394 N9495 N9596 N9697 N9798 N9899 N9900 N0001 N0102 N0203 N0304 N0405 6.3 r region.; run;

data regionA;

```
set region;
 where R=0;
  keep A1961-A2005;
run;
data regionM;
  set region;
 where R=0;
 keep M1961-M2005;
run;
data regionN;
  set region;
 where R=0;
  keep N1961-N2005;
run;
*proc print data=regionN;run;
proc transpose data=regionA out=tregionA;
run;
proc transpose data=regionM out=tregionM;
run;
proc transpose data=regionN out=tregionN;
run;
data tregionA;
 set tregionA;
 Year=round(substr( NAME ,2,4),1);
  Attendance=Col1;
  drop _NAME _ LABEL _ COL1;
run;
data tregionM;
  set tregionM;
  Year=round(substr( NAME ,2,4),1);
  Membership=Col1;
  drop NAME LABEL COL1;
run;
data tregionN;
  set tregionN;
  Year=round(substr( NAME ,2,4),1);
  Churches=Col1;
  drop NAME LABEL COL1;
run;
*proc print data=tregionA;run;
*proc print data=tregionM;run;
*proc print data=tregionN;run;
data Tregion;
 merge tregionA tregionM tregionN;
 by Year;
run;
```

title4 'Annual Attendance. Membership, and Number of Churches';
proc print data=tregion;
run;

```
* Q: What kind of model would work here?
* Growth Rate Model:
title4 'Attendance model';
proc reg data=tregion;
  model Attendance= Year ;
  plot Attendance*Year;
  plot predicted.*residual.;
  plot nqq.*Attendance;
  plot npp.*Attendance;
run;
quit;
title4 'Membership model';
proc reg data=tregion;
  model Membership= Year ;
  plot Membership*Year;
  plot predicted.*residual.;
  plot nqq.*Membership;
  plot npp.*Membership;
run;
quit;
* EMC 10-year;
title3 'EMC 10-year Growth Rate';
proc means data=emc maxdec=2 fw=4 N noprint;
  var A2005;
  output out=AemcTotal sum(A1993-A2005)=A1993-A2005;
  output out=MemcTotal sum(m1957 m1959 m1960 m1964-m1966 m1969-m2005)
      =m1957 m1959 m1960 m1964-m1966 m1969-m2005;
  output out=NemcTotal n(m1957 m1959 m1960 m1964-m1966 m1969-m1992
      A1993-A2005)=N1957 N1959 N1960 N1964-N1966 N1969-N1992 N1993-
N2005;
run;
proc means data=emc maxdec=2 fw=4 N noprint;
  var A2005;
 'by region;
  output out=Aemcregion sum(A1993-A2003)=A1993-A2003;
  output out=Memcregion sum(m1957 m1959 m1960 m1964-m1966 m1969-m2003)
      =m1957 m1959 m1960 m1964-m1966 m1969-m2003;
  output out=Nemcregion n(m1957 m1959 m1960 m1964-m1966 m1969-m1992
      A1993-A2005)=N1957 N1959 N1960 N1964-N1966 N1969-N1992 N1993-
N2005;
run;
```

```
data Aemcregion;
  set Aemcregion AemcTotal;
  if region='' then region='Total';
run;
data Memcregion;
  set Memcregion MemcTotal;
  if region='' then region='Total';
run;
data Nemcregion;
  set Nemcregion NemcTotal;
  if region='' then region='Total';
run:
proc sort data=Aemcregion; by region; run;
proc sort data=Memcregion; by region; run;
proc sort data=Nemcregion; by region; run;
data emcregion;
  merge Aemcregion Memcregion Nemcregion;
  by region;
run;
data emcregion sasdata.emcregion;
  set emcregion;
  if M1991 > 0 then M9101=(M2001-M1991)/M1991; else M9101=.;
  if A1993 > 0 then A9303=(A2003-A1993)/A1993; else A9303=.;
  if N1991 > 0 then N9101=(N2001-N1991)/N1991; else N9101=.;
label
            M9101='10-year increase in Membership (1991-2001)'
            A9303='10-year increase in Attendance (1993-2003)no
data>1993'
           N9101='10-year increase in Number of Churches (1991-2001)';
run;
title4 '10-year EMC Regional and Overall Growth Rate (1991 to 2001)';
proc print data=emcregion;
 var region M1991 A1993 N1991 M2001 A2001 N2001 M9101 A9303 N9101;
format M9101 A9303 N9101 5.2;
run;
* EMMC 1991 to 2001 10 year increase;
title3 'EMMC 1991 to 2001 10-year Increase';
data region sasdata.region;
  set region;
      if M1991 > 0 then M9101=(M2001-M1991)/M1991; else M9101=.;
      if A1991 > 0 then A9101=(A2001-A1991)/A1991; else A9101=.;
      if N1991 > 0 then N9101=(N2001-N1991)/N1991; else N9101=.;
  label M9101='10-yr % gain Membership'
            A9101='10-yr % gain Attendance'
            N9101='10-yr % gain # Churches';
run;
```

```
title4 '10-year Regional and Overall Growth Rate (1991 to 2001)';
proc print data=region;
  var r M2001 A2001 N2001 M1991 A1991 N1991 M9101 A9101 N9101;
  format M9101 A9101 N9101 5.2 r region.;
run;
* Five-year growth rates - ;
title3 'Individual Church Five-year Rates - Growth Status';
data emmc2;
  set emmc2;
  if DisfunctB ne 1;
      NPlants=0; if A2005D1>0 then NPlants=NPlants+1; if A2005D2>0
then
            NPlants=NPlants+1;
                        if A2005D3>0 then NPlants=NPlants+1; if
A2005D4>0 then
            NPlants=NPlants+1;
      A2005P=sum(A2005D1,A2005D2,A2005D3,A2005D4); if A2005P=. then
A2005P=0;
      if M2000 > 0 then M0005=(M2005-M2000)/M2000; else M0005=.;
      if A2000 > 0 then A0005=(A2005-A2000)/A2000; else A0005=.;
      if A2000 > 0 then AP0005=(A2005+A2005P-A2000)/A2000; else
AP0005=.;
      G=A0005;
      GP=AP0005;
      Size=A2000;
  label
            M0005='5-yr % gain Membership (2000-2005)'
            A0005='5-yr % gain Attendance (2000-2005)'
            AP0005='5-yr % gain Attendance inc plants (2000-2005)'
                 ='% Attendance gain 2000 to 2005'
            G
                 ='% Attendance gain (inc plants) 2000-05'
            GP
            Size='EMMC Records Attendance 2000';
run;
proc sort data=emmc2;
 by A0005 r ChurchId;
run;
proc print data=emmc2;
  var R ChurchId StartYear EndYear D1-D4 A2005D1-A2005D4
      G GP M2000 M2005 M0005 A2000 A2005 A2005P A0005;
  format M0005 A0005 5.2 r region. G Growth.;
run;
proc freq data=emmc2;
  tables A2000 G GP R / list missing;
  tables G*GP A2000*G A2000*GP R*A2000 R*G R*GP / missing;
format A0005 5.2 R region. G GP Growth. A2000 sizef.;
```

```
run;
```

data SasData.emmc2; set emmc2; run;
```
* EMMC Growth Patterns;
*Import Census Data;
libname SasData 'C:\Shared Documents and Such\Education\McMaster
School
Thesis Project\Data\SASData';
options nodate pageno=1;
options pageno=1 pagesize=52 linesize=90 date;
title1 'Masters Project: EMMC Growth Data';
title2 'EMMC Pastors and Leaders Survey Data';
* Import Church Neighbourhood Data from National Censuses;
title3 'Import Pastors Data';
proc import datafile="C:\Shared Documents and Such\Education\McMaster
School
Thesis Project\Data\Community Profile of EMMC Churches 2006Oct24.xls"
      out=census replace;
      sheet='data';
run;
data census;
  set census;
  if ChurchId=33 then ChurchId=23; if ChurchId=35 then ChurchId=45;
  *EMMC General Board Proposal;
      Region=round((ChurchId-5)/10);
  label
                        ='Church Identifier'
            ChurchId
            RegionLevel ='Region Level'
            RegionType ='Region Type'
            RegionName ='Region Name'
            PPopulation ='Population in 2001'
                        ='1996 to 2001 population change (%)'
            PPop9101
                        ='Population density per square kilometre'
            PDensity
                        ='Land area (square km)'
            Area
            PMalePer
                        ='% Male'
            PAgeMed
                              ='Median age of the population'
            PLangFrOnly ='% of pop who first learned French'
            PLang0
                              ='% of pop who first learned Belize:
0 ??'
            PLangChHin ='% of pop who first learned Belize: Chinese
or Hindi'
            PLangCreole ='% of pop who first learned Belize: 2
Creole/4 Garifuna'
            PlangEng
                        ='% of pop who first learned English'
                        ='% of pop who first learned Belize: German'
            PLangGer
            PLangMaya
                        ='% of pop who first learned Belize: Mayan
languages'
                              ='% of pop who first learned Belize:
            PLangSp
Spanish'
            PLangOther ='% of pop who first learned languages other'
            PLangUnknown='% of pop who first learned languages
Unknown'
```

PMovedPrv1Yr='% of pop 1 yr+ in diff prov/ter or country 1 yr ago' PMovedPrv5Yr='% of pop 5 years+ in diff prov/ter or country 5 yrs ago' PForeignBorn='% of popuation that is Foreign-born' PImmigBef91 ='% of pop that has Immigrated before 1991' PImmig9101 ='% of pop that has Immigrated between 1991 and 2001' PNonPermRes ='% of pop that is Non-permanent residents' PRaceAborig ='% of Pop has Aboriginal identity -Canada has 2 questions' PRaceVisMin ='% of pop that is Visible minority' PRaceBlack ='% of pop that is Visible minority Black' PRaceCreole ='% of pop that is Creole' PRaceLatin ='% of pop that is Visible minority Latin American' PRaceChin ='% of pop that is Visible minority Chinese' PRaceSAsian ='% of pop that is Visible minority South Asian' ='% of pop that is Visible minority Filipino' PRaceFil PRaceMenno ='% of pop that is Mennonite race' PRaceSEAsian='% of pop that is Visible minority Southeast Asian' PRaceEIndian='% of pop that is Visible minority East Indian' ='% of pop that is Visible minority Arab' PRaceArab PRaceAsian ='% of pop that is Visible minority Asian' PRaceWAsian ='% of pop that is Visible minority West Asian' PRaceViet ='% of pop that is Vietnames race' ='% of pop that is Korean Visible minority' PRaceKor PRaceJap ='% of pop that is Japanese Visible minority' PRaceOAsian ='% of pop that is Other Asian race' PRacePac ='% of pop that is of Pacific Islander race' PRaceOther ='% of pop that is Other Visible minority' PRaceMult ='% of pop that is multiple races' PRaceWhite ='% of pop that is NOT Aboriginal or Visible minority' PRaceUnkn '='% of pop that is of Unknown race' ='% of pop that is Catholic religion' PRelCath ='% of pop that is Orthodox' PRelOrth PRelProtest ='% of pop that is Protestant' ='% of pop that is Anglican' PRelAng PRelBap ='% of pop that is Baptist' ='% of pop that is Methodist' PRelMeth PRelPent ='% of pop that is Pentecostal' ='% of pop that is Salvation Army' PrelSA ='% of pop that is Nazarine' PrelNaz ='% of pop that is Mennonite' PRelMenno ='% of pop that is Mormon' PRelMor PRel7DayA ='% of pop that is Seventh Day Adventist' ='% of pop that is Jehovahs Witnesses' PRelJW PRelOthChr ='% of pop that is Christian, n.i.e.(other)' PRelMuslim ='% of pop that is Muslim' ='% of pop that is Jewish' PRelJew ='% of pop that is Buddhist' PRelBud ='% of pop that is Hindu' PRelHin

PRelSikh ='% of pop that is Sikh' ='% of pop that is Bahai' PRelBah PRelEast ='% of pop that is Eastern religions' PRelOther ='% of pop that is Other religions' PRelUnknown ='% of pop that is religion Unknown' PRelNone ='% of pop that is No religion' PEduFT ='% of pop 15 yrs+ school full time' PEduPartT ='% of pop 15 yrs+ school part time' PAge2034 ='% of pop aged 20-34' PEdu2034NoHS='% of pop aged 20-34 w < high school' PEdu2034HS ='% of pop aged 20-34 w high school' PEdu2034TC ='% of pop aged 20-34 w trades diploma' PEdu2034CD ='% of pop aged 20-34 w college diploma' PEdu2034UD ='% of pop aged 20-34 w university degree' ='% of pop aged 35-44' PAge3544 PEdu3544NoHS='% of pop aged 35-44 w < high school' PEdu3544HS ='% of pop aged 35-44 w high school' PEdu3544TC ='% of pop aged 35-44 w trades diploma' PEdu3544CD ='% of pop aged 35-44 w college diploma' PEdu3544UD ='% of pop aged 35-44 w university degree' ='% of pop aged 45-64' PAge4564 PEdu4564NoHS='% of pop aged 45-64 w < high school' PEdu4564HS ='% of pop aged 45-64 w high school' PEdu4564TC ='% of pop aged 45-64 w trades diploma' PEdu4564CD ='% of pop aged 45-64 w college diploma' PEdu4564UD ='% of pop aged 45-64 w university degree' PEdUnknownu ='% of pop unknown education' ='% of pop with < high school' PEduNoHS ='% of pop with high school' PEduHS ='% of pop with trade diploma' PEduCD PEduUD ='% of pop with university degree' ='Median total income of persons 15 PIncMed years+ (\$)' PEmpTransit ='% of employed lab force 15+ w trans Public transit' PEmpWalk ='% of employed lab force 15+ w trans Walk/Bicycle' PEmpLabForce='% of the pop age 15 + Participating in labout force' PEmplRate ='% of pop aged 15 and over that are Employed' PEmpUnempR ='Unemployment rate of labout force aged 15 and over' ='% of the pop ages 15 and over' PAge15Plus PMarNo ='% of pop no marriage Mex:0:No apilica, Bel: P91=0 Ns' PMarComLaw ='% of pop with common law marriage (Canada of Age 15+)' PMarSingle ='% of pop single (Canada of Age 15+)' PMarMarried ='% of pop with marriage (Canada of Age 15+)' PMarSep ='% of pop separated (Canada of Age 15+)'PMarDiv ='% of pop divorced (Canada of Age 15+)' ='% of pop widowed (Canada of Age 15+)' PMarWid PMarVisiting='% of pop with visiting partner (Belize ?)' PMarUnk ='% of pop with unknown Married status' Dwellings ='Total private dwellings' DwelRented ='% of dwellings that were rented'

Dwel9101Blt ='% of dwellings that were constructed 1991-2001' DwelAveValue='Average value of dwelling (\$)' HlPerson ='% of hhlds that are 1-person hhlds' HIncMed ='Median hhld income; 2000 (\$) - All hhlds' H1PerIncMed ='Median hhld income 2000 (\$) - 1-person hhlds' H2PerIncMed ='Median hhld income 2000 (\$) - 2+ persons hhlds' HSizeAve ='Average hhld size' FSizeAve ='Average family size' Hhld ='Total hhlds' ='% of hhlds that are families' HFam HAge65plus ='% of hhlds with Householder 65 years and over' HUnmP ='% of hhlds with unmarried partner' ='% of hhlds that are married couples' HMarC FCLaw ='% of families that are common-law couple families' FLoneP ='% of families that are lone parent families' ='% of families that are male lone FMLoneP parent families' FIncAve ='Median family income 2000 (\$) - All census families' FCoupIncAve ='Median family income 2000 (\$) - Couple families' FLonePIncAve='Median family income 2000 (\$) - Lone-parent families'; run; proc freq data=census; table ChurchId RegionLevel RegionType RegionName PPopulation PPop9101 PDensity Area PMalePer PAgeMed PLangFrOnly PLangO PLangChHin PLangCreole PlangEng PLangGer PLangMaya PLangSp PLangOther PLangUnknown PMovedPrv1Yr PMovedPrv5Yr PForeignBorn PImmigBef91 PImmig9101 PNonPermRes PRaceAborig PRaceVisMin PRaceBlack PRaceCreole PRaceLatin PRaceChin PRaceSAsian PRaceFil PRaceMenno PRaceSEAsian PRaceEIndian PRaceArab PRaceAsian PRaceWAsian PRaceViet PRaceKor PRaceJap PRaceOAsian PRacePac PRaceOther PRaceMult PRaceWhite PRaceUnkn PRelCath PRelOrth PRelProtest PRelAng PRelBap PRelMeth PRelPent PrelSA PrelNaz PRelMenno PRelMor PRel7DayA PRelJW PRelOthChr PRelMuslim PRelJew PRelBud PRelHin PRelSikh PRelBah PRelEast PRelOther PRelUnknown PRelNone PEduFT PEduPartT PAge2034 PEdu2034NoHS PEdu2034HS PEdu2034TC PEdu2034CD PEdu2034UD

PAge3544 PEdu3544NoHS PEdu3544HS PEdu3544TC PEdu3544CD PEdu3544UD PAge4564 PEdu4564NoHS PEdu4564HS PEdu4564TC PEdu4564CD PEdu4564UD PEdUnknownu PEduNoHS PEduHS PEduCD PEduUD PIncMed PEmpTransit PEmpWalk PEmpLabForce PEmplRate PEmpUnempR PAge15Plus PMarNo PMarComLaw PMarSingle PMarMarried PMarSep PMarDiv PMarWid PMarVisiting PMarUnk Dwellings DwelRented Dwel9101Blt DwelAveValue H1Person HIncMed H1PerIncMed H2PerIncMed HSizeAve FSizeAve Hhld HFam HAge65plus HUnmP HMarC FCLaw FLoneP FMLoneP FIncAve FCoupIncAve FLonePIncAve / list missing; format ChurchId RegionLevel PPopulation PPop9101 PDensity Area PMalePer PAgeMed PLangFrOnly PLang0 PLangChHin PLangCreole PlangEng PLangGer PLangMaya PLangSp PLangOther PLangUnknown PMovedPrv1Yr PMovedPrv5Yr PForeignBorn PImmigBef91 PImmig9101 PNonPermRes PRaceAborig PRaceVisMin PRaceBlack PRaceCreole PRaceLatin PRaceChin PRaceSAsian PRaceFil PRaceMenno PRaceSEAsian PRaceEIndian PRaceArab PRaceAsian PRaceWAsian PRaceViet PRaceKor PRaceJap PRaceOAsian PRacePac PRaceOther PRaceMult PRaceWhite PRaceUnkn PRelCath PRelOrth PRelProtest PRelAng PRelBap PRelMeth PRelPent PrelSA PrelNaz PRelMenno PRelMor PRel7DayA PRelJW PRelOthChr PRelMuslim PRelJew PRelBud PRelHin PRelSikh PRelBah PRelEast PRelOther PRelUnknown PRelNone PEduFT PEduPartT PAge2034 PEdu2034NoHS PEdu2034HS PEdu2034TC PEdu2034CD PEdu2034UD PAge3544 PEdu3544NoHS PEdu3544HS PEdu3544TC PEdu3544CD PEdu3544UD PAge4564 PEdu4564NoHS PEdu4564HS PEdu4564TC PEdu4564CD PEdu4564UD PEdUnknownu PEduNoHS PEduHS PEduCD PEduUD PIncMed PEmpTransit PEmpWalk PEmpLabForce PEmplRate PEmpUnempR PAge15Plus PMarNo PMarComLaw PMarSingle PMarMarried PMarSep PMarDiv PMarWid PMarVisiting PMarUnk Dwellings DwelRented Dwel9101Blt DwelAveValue H1Person HIncMed H1PerIncMed H2PerIncMed HSizeAve FSizeAve Hhld HFam HAge65plus HUnmP HMarC FCLaw FLoneP FMLoneP FIncAve FCoupIncAve FLonePIncAve missing. RegionType RegionName \$missing.; run;

data census;

set census;

PEd2034HS=sum(PEdu2034HS, PEdu2034TC, PEdu2034CD, PEdu2034UD); PEd3544HS=sum(PEdu3544HS, PEdu3544TC, PEdu3544CD, PEdu3544UD); PEd4564HS=sum(PEdu4564HS, PEdu4564TC, PEdu4564CD, PEdu4564UD); PEdHS=sum(PEduHS, PEduTC, PEduCD, PEduUD);

PEd2034CDU=sum(PEdu2034CD, PEdu2034UD); PEd3544CDU=sum(PEdu3544CD, PEdu3544UD); PEd4564CDU=sum(PEdu4564CD, PEdu4564UD); PEdCDU=sum(PEduCD, PEduUD);

*PEduNoHS PEduHS PEduTC PEduCD PEduUD; label PEd2034HS ='% of pop aged 20-34 with high school or more' PEd3544HS ='% of pop aged 35-44 with high school or more' PEd4564HS ='% of pop aged 45-64 with high school or more' PEdHS ='% of pop with high school or more' PEd2034CDU ='% of pop aged 20-34 w college or university' PEd3544CDU ='% of pop aged 35-44 w college or university' PEd4564CDU ='% of pop aged 45-64 w college or university' PEd4564CDU ='% of pop with college or university'; PEdCDU ='% of pop with college or university';

```
run;
```

```
* ;
```

run;

data SasData.census;
 set census;
run;

* EMMC Growth Patterns; *Import Surveys; libname SasData 'C:\Shared Documents and Such\Education\McMaster School\ Thesis Project\Data\SASData';

options nodate pageno=1; options pageno=1 pagesize=52 linesize=90 date;

title1 'Masters Project: EMMC Growth Data'; title2 'EMMC Pastors and Leaders Survey Data';

* Import Pastors Data; title3 'Import Pastors Data';

proc import datafile="C:\Shared Documents and Such\Education\McMaster School\

Thesis Project\Data\pastors and leaders data 2006Nov01 total.xls"
 out=pastorslist replace;
 sheet='pastorslist';

run;

proc import datafile="C:\Shared Documents and Such\Education\McMaster School\ Thesis Project\Data\pastors and leaders data 2006Nov01 total.xls" out=pastors1 replace; sheet='pastors1';

run;

proc import datafile="C:\Shared Documents and Such\Education\McMaster School\ Thesis Project\Data\pastors and leaders data 2006Nov01 total.xls" out=pastors2 replace;

sheet='pastors2';

run;

```
data pastorslist; set pastorslist;
  if ChurchId=33 then ChurchId=23; if ChurchId=35 then ChurchId=45;
  *EMMC General Board Proposal;
        Region=round((ChurchId-5)/10);
run;
data pastors1; set pastors1;
  if ChurchId=33 then ChurchId=23; if ChurchId=35 then ChurchId=45;
  *EMMC General Board Proposal;
run;
data pastors2; set pastors2;
  if ChurchId=33 then ChurchId=23; if ChurchId=35 then ChurchId=45;
```

*EMMC General Board Proposal;

run;

proc sort data=pastorslist;
 by ChurchId;
run;

```
proc sort data=pastors1;
  by ChurchId;
run;
proc sort data=pastors2;
 by ChurchId;
run;
* Import Leaders Data;
title3 'Import Leaders Data';
proc import datafile="C:\Shared Documents and Such\Education\McMaster
School\
Thesis Project\Data\pastors and leaders data 2006Nov01 total.xls"
      out=leaderslist replace;
      sheet='leaderslist';
run;
proc import datafile="C:\Shared Documents and Such\Education\McMaster
School
Thesis Project\Data\pastors and leaders data 2006Nov01 total.xls"
      out=leaders1 replace;
      sheet='leaders1';
run;
proc import datafile="C:\Shared Documents and Such\Education\McMaster
School
Thesis Project/Data/pastors and leaders data 2006Nov01 total.xls"
      out=leaders2 replace;
      sheet='leaders2';
run;
data leaderslist; set leaderslist;
  if ChurchId=33 then ChurchId=23; if ChurchId=35 then ChurchId=45;
  *EMMC General Board Proposal;
      Region=round((ChurchId-5)/10);
run;
proc sort data=leaderslist;
  by LeaderId;
run;
proc sort data=leaders1;
 by LeaderId;
run;
proc sort data=leaders2;
  by LeaderId;
run;
```

*Response Rate;

```
title3 'Response Rate';
proc sort data=pastorslist; by ChurchId; run;
data pastors;
  merge pastorslist (in=ps keep=Region ChurchId EligibleB SentD)
            pastors1 (in=p1)
            pastors2 (in=p2);
  by ChurchId;
  if ps;
  if ChurchId=99 then delete;
  label
            ChurchId='Church Id'
            ReceivedD='Received date'
                        ='Date Entered'
            EnterD
                        ='Enterer Id: 1-Eddy, 2-Yolanda, 3-Susie,..'
            EnterId
            p01
                        ='# people that do not attend weekly, attend
monthly'
            p02a ='2004 average worship attendees'
            p02b ='2005 average worship attendees'
            p03a ='membership December 31, 2004'
            p03b ='membership December 31, 2005'
            p04a ='Non-Mennonite descendent members end 2004'
            p04b ='Non-Mennonite descendent members end 2005'
                        ='% members attended worship regularly 3 mth'
            p05
            p06a ='Members Total NOT attending regularly'
            p06b ='Members not attending due to Illness or
immobility'
                 ='Members not attending due to Study away from home'
            p06c
            p06d ='Members not attending due to Mission/church
planting'
            p07a ='In last ten years, Church plant 1'
            p07b ='In last ten years, Church plant 2'
            p07c ='In last ten years, Church plant 3'
            p08a1 = 2005 people under age 18 added by Baptism'
            p08a2 ='2005 people age 18-34 added by Baptism'
            p08a3 ='2005 people age 35-54 added by Baptism'
            p08a4 = 2005 people age 55+ added by Baptism'
            p08b1 = 2005 people < age 18 added by Transfer from local
church'
            p08b2 ='2005 people age 18-34 added by Transfer from local
church'
            p08b3 ='2005 people age 35-54 added by Transfer from local
church'
            p08b4 = 2005 people age 55+ added by Transfer from local
church'
            p08c1 = 2005 people < age 18 added by Transfer from
distant church'
            p08c2 ='2005 people age 18-34 added by Transfer from
distant church'
            p08c3 ='2005 people age 35-54 added by Transfer from
distant church'
            p08c4 = 2005 people age 55+ added by Transfer from distant
church'
            p09a1 ='2005 Members transferred from other Local EMMC
churches'
            p09a2 ='2005 Members transferred from other Distant EMMC
churches'
            p09b1 ='2005 Members transferred from Local EMC churches'
```

p09b2 = '2005 Members transferred from Distant EMC churches' p09c1 = '2005 Members transferred from Local Old Colony churches' p09c2 = '2005 Members transferred from Distant Old Colony churches' p09d1 = '2005 Members transferred from Local Reinlander churches' p09d2 = 2005 Members transferred from Distant Reinlander churches' p09e1 = '2005 Members transferred from Local Sommerfelder churches' p09e2 = '2005 Members transferred from Distant Sommerfelder churches' p09f1 = 2005 Members transferred from Local Kleine Gemeinde churches' p09f2 ='2005 Members transferred from Distant Kleine Gemeinde ch' p09q1 = '2005 Members transferred from Local Bergthaler churches' p09g2 = 2005 Members transferred from Distant Bergthaler churches' p09h1 ='2005 Members transferred from Local Mennonite Brethren ch' p09h2 = 2005 Members transferred from Distant Mennonite Brethren ch' p09i1 ='2005 Members transferred from Local Brethren in Christ ch' p09i2 = '2005 Members transferred from Distant Brethren in Christ ch' p09j1 = '2005 Members transferred from Local General Conference ch' p09j2 ='2005 Members transferred from Distant General Conference ch' p09k1 = 2005 Members transferred from other Local Mennonite ch' p09k2 ='2005 Members transferred from other Distant Mennonite ch' p0911 = 2005 Members transferred from Local non-Mennonite Evan ch' p0912 ='2005 Members transferred from Distant non-Mennonite Evan ch' p09m1 = '2005 Members transferred from other Local churches' p09m2 = '2005 Members transferred from other Distant churches' pl0a1 = '2005 people under age 18 who were transferred to local ch' pl0a2 = 2005 people age 18-34 who were transferred to local ch' pl0a3 ='2005 people age 35-54 who were transferred to local ch' pl0a4 = 2005 people age 55+ who were transferred to local ch' p10b1 = 2005 people under age 18 who were transferred to distant ch'

p10b2 ='2005 people age 18-34 who were transferred to distant ch' p10b3 ='2005 people age 35-54 who were transferred to distant ch' p10b4 = 2005 people age 55+ who were transferred to distant ch' p10c1 ='2005 people under age 18 who died' pl0c2 ='2005 people age 18-34 who died' ploc3 ='2005 people age 35-54 who died' ploc4 ='2005 people age 55+ who died' p10d1 = 2005 people under age 18 who Withdrew their membership' p10d2 ='2005 people age 18-34 who Withdrew their membership' p10d3 = 2005 people age 35-54 who Withdrew their membership' p10d4 ='2005 people age 55+ who Withdrew their membership' pl0e1 ='2005 people under age 18 who dismissed from membership' pl0e2 ='2005 people age 18-34 who dismissed from membership' pl0e3 ='2005 people age 35-54 who dismissed from membership' pl0e4 = '2005 people age 55+ who dismissed from membership' plla1 = 2005 Members transferred to other Local EMMC churches' pl1a2 ='2005 Members transferred to other Distant EMMC churches' pllb1 = 2005 Members transferred to Local EMC churches' p11b2 ='2005 Members transferred to Distant EMC churches' pllcl ='2005 Members transferred to Local Old Colony churches' pllc2 ='2005 Members transferred to Distant Old Colony churches' p11d1 = 2005 Members transferred to Local Reinlander *churches*' p11d2 ='2005 Members transferred to Distant Reinlander churches' plle1 = 2005 Members transferred to Local Sommerfelder churches' plle2 ='2005 Members transferred to Distant Sommerfelder churches' p11f1 ='2005 Members transferred to Local Kleine Gemeinde churches' p11f2 = '2005 Members transferred to Distant Kleine Gemeinde ch pllg1 ='2005 Members transferred to Local Bergthaler churches' pl1g2 = 2005 Members transferred to Distant Bergthaler churches' pl1h1 ='2005 Members transferred to Local Mennonite Brethren ch p11h2 = 2005 Members transferred to Distant Mennonite Brethren ch' p11i1 ='2005 Members transferred to Local Brethren in Christ ch'

p11i2 ='2005 Members transferred to Distant Brethren in Christ ch' p11j1 ='2005 Members transferred to Local General Conference ch' p11j2 = '2005 Members transferred to Distant General Conference ch' p11k1 = 2005 Members transferred to other Local Mennonite ch' p11k2 = 2005 Members transferred to other Distant Mennonite ch' p1111 = 2005 Members transferred to Local non-Mennonite Evan ch' p1112 ='2005 Members transferred to Distant non-Mennonite Evan ch' pl1m1 = 2005 Members transferred to other Local churches' p11m2 ='2005 Members transferred to other Distant churches' p12a ='Method of selecting Deacons' p12b ='Method of selecting Elders' pl2c ='Method of selecting Sunday school superintendent' p12d ='Method of selecting Treasurer' pl2e ='Method of selecting Congregational chair' pl2f ='Method of selecting Lay ministers / pastors' p12g ='Method of selecting Sunday school teachers' p12h ='Method of selecting Bible study leaders' p12i ='Method of selecting Missions / outreach chair' ='Method of selecting Worship leaders' p12j p12k ='Method of selecting Other key leaders' p12kOther='Other position' ='How important is it to be a member to serve p13 in your church?' ='How important is it to be a member to lead p14 in your church?' p15a ='Organizational structure contribution to inc in att 5 yrs' p15b ='Building expansion contribution to att in last 5 yrs' p15c ='Building improvements contribution att in last 5 yrs' p15d ='Handicap accessibility contribution att in last 5 yrs' p15e ='Pavement or canopy contribution att in last 5 yrs' ='Identified target group contribution att in last 5 p15f yrs' p15g ='Pastor contribution to increase in att in last 5 yrs' p15h ='New vision contribution to 5 yr increase in att' p15i ='Small groups contribution to 5 yr increase in att' ='Worship Service contribution to 5 yr increase in p15j att' p15k = Children ministries contribution to 5 yr increase in att' p151 ='Teaching contribution to 5 yr increase in att' p15m ='Prayer contribution to 5 yr increase in att' p15n ='Revival contribution to 5 yr increase in att'

p150 ='Reconciliation contribution to 5 yr increase in att' p15p ='Discipleship contribution to 5 yr increase in att' p15q ='Missions contribution to 5 yr increase in att' p15r ='Freedom from bondage contribution to 5 yr increase in att' p15s ='Care to community contribution to 5 yr increase in att' p15t ='Outreach to community contribution to 5 yr increase in att' p15u ='Church plant contribution to 5 yr increase in att' p15v ='Other contribution to 5 yr increase in att' p15v0ther='Other 1' p15w ='Other 2 contribution to increase to 5 yr increase in att' p15wOther='Other 2' p16 ='Where do you meet for your weekly worship services?' p160ther='Other meeting place' p17a ='Use of your facilities by Other churches' p17b ='Use of your facilities by Families funerals' p17c ='Use of your facilities by Alcoholics Anomalous' p17d ='Use of your facilities by Community moms program' p17e ='Use of your facilities by Adult education' p17f ='Use of your facilities by MCC meetings' p17g ='Use of your facilities by Other' p17gOther='Use of your facilities by Other' ='hours per week is your church building used p18 for ministry' p19a1 ='Day of week of service 1' p19a2 ='Time of service 1' p19a3 ='Language of service 1' p19a4 ='Target group of service 1' p19a5 ='Capacity of service 1' p19a6 ='Start Date of service 1' p19b1 ='Day of week of service 2' p19b2 ='Time of service 2' p19b3 ='Language of service 2' p19b4 ='Target group of service 2' p19b5 ='Capacity of service 2' p19b6 ='Start Date of service 2' p19c1 ='Day of week of service 3' p19c2 ='Time of service 3' p19c3 ='Language of service 3' p19c4 ='Target group of service 3' p19c5 ='Capacity of service 3' p19c6 ='Start Date of service 3' p19d1 ='Day of week of service 4' p19d2 ='Time of service 4' p19d3 ='Language of service 4' p19d4 ='Target group of service 4' p19d5 ='Capacity of service 4' p19d6 ='Start Date of service 4' p20 ='# small groups which meet least twice mth does church have?' p21a1 ='# children (age 2-13) participate in Sunday School'

p21a2 ='# youth (14-17) participate in Sunday School' p21a3 ='# adults (18 and up) participate in Sunday School' p21b1 ='# children (age 2-13) participate in SS but not worship' p21b2 ='# youth (14-17) participate in SS but not worship' p21b3 ='# adults (18 and up) participate in SS but not worship' p21c1 ='# children (age 2-13) participate in Bible study' p21c2 = '# youth (14-17) participate in Bible study' p21c3 ='# adults (18 and up) participate in Bible study' p21d1 ='# children (age 2-13) participate in Small group/Bible study' p21d2 ='# youth (14-17) participate in Small group or Bible study' p21d3 ='# adults (18 and up) participate in Small group/Bible study' p21e1 ='# children (age 2-13) participate in Worship but not SS' p21e2 ='# youth (14-17) participate in Worship but not SS' p21e3 ='# adults (18 and up) participate in Worship but not SS' p22 ='# attending annual meeting 2005' p23a ='# church attendees attended Steinbach Bible College' p23b ='# church attendees attended Bethany Bible Institute' p23c _='# church attendees attended Steinrich Bible School' ='# church attendees attended Briercrest Bible p23d College' p23e ='# church attendees attended Providence College/ Seminary' ='# church attendees attended Winnipeg College/ p23f Seminary' ='# church attendees attended Tyndale Bible p23g College/Seminary' p23h ='# church attendees attended Ontario Bible College/Seminary' ='# church attendees attended Prairie Bible p23i Institute' ='# church attendees attended Emanuel Bible College' p23j p23k ='# church attendees attended Heritage Bible College' ='# church attendees attended Rio Grande Bible p231 Institute' p23m ='# church attendees attended Goshen College' ='# church attendees attended Canadian Mennonite p23n University' p23o ='# church attendees attended Evangelical Anabaptist Seminary' p23p ='# church attendees attended Other - Specify' p23pOther='Other school attended' p24a ='Month of Fiscal year start' p24b ='Month of Annual general meeting' p24c ='Month of Start of ministry terms' p24d ='Month of Final budget adopted'

p24e ='Month of Preliminary budget adopted (if you have one)' ='Month of Election of board or council members' p24f ='Who Hires the senior pastor' p25a p25b ='Who Approves budget' ='Who Develop budget' p25c p25d ='Who Starts a new ministry' p25e ='Who Oversees non-senior pastors' p25f ='Who Contract lawn care' p26 ='body that sets the ministry direction of your church' ='body also lead in spiritual matters or there p27 is a 2nd group' p28a ='We have a Board: 1,2' ='We have a Council: 1,2' p28b p28c ='We have a Ministerial: 1,2' p28d ='We have a Other leadership body: 1,2' p28dOther='Name of other leadership body' p29 ='Max # of consecutive yrs that voting members can serve:1,2' p30a ='Strengths and weaknesses of board terms 1' p30b ='Strengths and weaknesses of board terms 2' p30c ='Strengths and weaknesses of board terms 3' p30AdLim1='Prevents monopoly of power Advantages board of Term Limits' p30AdLim2='Allows new ideas/independent thought Advantages of board Term Limits' p30AdLim3='Developes new leaders Advantages of Term Limits of Board members' p30AdLim4='Allows unsuited people a way out Advantages of board Term Limits' p30AdLim5='Encourages ownership Advantages of board Term Limits' p30AdLim6='Allows rest Advantages of Term Limits of Board members' p30AdLim7='Allows gifted outsiders in Advantages of board Term Limits p30AdLim8='Prevents coasting Advantages of board Term Limits' p30AdLim9='More willing to commit Advantages of board Term Limits' p30AdNoL1='Consistency Advantages of No Term Limits of Board members' p30AdNoL2='Keeps gifted, committed leaders Advantages of No board Term Limits' p30AdNoL3='Time to learn Advantages of No Term Limits of Board members' p30AdNoL4='Members hard to replace Advantages of No board Term Limits' p31 ='Term church organizational structure been in place?:1-4' p32 ='Does your church have ministry department heads?' ='Church planting activity in next 5 years p33a Actively planning: 1,2' p33b ='Church planting activity in next 5 years - Chosen a location: 1,2'

p33c ='Church planting activity in next 5 yrs-Targeted a people group:1,2' ='Selected ONE particular Spiritual gifts p34 assessment tool: 1,2' ='Which Spiritual gifts assessment tool' p35. p35x ='Which Spiritual gifts assessment tool 1-4' ='Conducted a Natural Church Development p36 evaluation: 1,2' p37a1 ='Most recent NCD Survey Date' p37b1 ='Most recent NCD Score - Overall' p37c1 ='Most recent NCD Score - Empowering Leadership' p37d1 ='Most recent NCD Score - Gift-oriented Ministry' p37e1 ='Most recent NCD Score - Passionate Spirituality' p37f1 ='Most recent NCD Score - Functional Structures' p37g1 ='Most recent NCD Score - Inspiring Worship Services' p37h1 ='Most recent NCD Score - Holistic Small Groups' p37i1 = 'Most recent NCD Score ~ Need-oriented Evangelism' p37j1 ='Most recent NCD Score - Loving Relationships' p37a2 ='Second most recent NCD Survey Date' p37b2 ='Second most recent NCD Score - Overall' p37c2 ='Second most recent NCD Score - Empowering Leadership' p37d2 ='Second most recent NCD Score - Gift-oriented Ministry' p37e2 ='Second most recent NCD Score - Passionate Spirituality' p37f2 ='Second most recent NCD Score - Functional Structures' p37q2 ='Second most recent NCD Score - Inspiring Worship Services' p37h2 ='Second most recent NCD Score - Holistic Small Groups' p37i2 ='Second most recent NCD Score - Need-oriented Evangelism' p37j2 ='Second most recent NCD Score - Loving Relationships' p37a3 = 'Third most recent NCD Survey Date' p37b3 ='Third most recent NCD Score - Overall' p37c3 ='Third most recent NCD Score - Empowering Leadership' p37d3 .= 'Third most recent NCD Score - Gift-oriented Ministry' p37e3 = Third most recent NCD Score - Passionate Spirituality' p37f3 ='Third most recent NCD Score - Functional Structures' p37q3 ='Third most recent NCD Score - Inspiring Worship Services' p37h3 ='Third most recent NCD Score - Holistic Small Groups' p37i3 ='Third most recent NCD Score - Need-oriented Evangelism' p37j3 ='Third most recent NCD Score - Loving Relationships' p38a ='Other tools to measure church strengths' p38b ='Other tools to measure church strengths'

	p38x	='Indicates Other tools to measure church strengths:	
0,1'	2302	-In an average week, hours you are you haid for	
ministry'	popa	- in an average week, nours you are you pard for	a.,
	p39b	='In an average week, hours you spend in church	
ministry'	p40	=!# annual vacation weeks for the senior	
pastor'	Pio	" difficult vacastor works for one pointst	
1	p41a	='Does your church offer sr pastor extended health	
plan: 1,2'	n41h	= Does your church offer ar pastor RRSP or pension.	
1,2'	PILO	boob your charen offer of publich habi of polibion.	
- Change C	p41c	='Does your church offer sr pastor a sabbatical	
alter 6 yr:	p42	='In 5 years, confidence yote for the senior	
pastor'	<u> </u>		
	p43	='Before hired as pastor attended'	
	p44a	='% time spend on Preaching'	
	p44b	='% time spend on Counselling'	
	p44c	='% time spend on Teaching'	
	p44d	='% time spend on Dreaming'	
	p44e	='% time spend on Sermon preparation'	
	p44f	='% time spend on Coaching ministries'	
	p44g	='% time spend on Shepherding'	
	p44h	='% time spend on Administration'	
	p44i	='% time spend on Leadership training'	
	p44j	='% time spend on EMMC board/council'	
	p44k	='% time spend on Other churches'	
	p441	='% time spend on Associated ministries'	
	p44m	='% time spend on Other'	
	p44mO	ther='Other task spent time on'	
	p45a	='How do you oversee Baptism classes'	
	p45b	='How do you oversee Teach children'	
	p45c	='How do you oversee Teach youth'	*
	p45d	='How do you'oversee Teach youth'	
	p45e	='How do you oversee Teach adults'	
	p45f	='How do you oversee Teach seniors'	÷ .
	p45g	='How do you oversee Outreach locally'	
	p45h	='How do you oversee Counselling'	
	p45i	='How do you oversee Community'	
	p45j	='How do you oversee Hospital visitation'	
	p45k	='How do you oversee Grief counselling'	,
	p451	='How do you oversee Funerals'	
	p45m	='How do you oversee Lead in worship'	*
	p45n	='How do you oversee Preaching'	
	p450	='How do you oversee Train leaders'	
	p45p	='How do you oversee Mentorship'	
	p45q	= How do you oversee Discipleship'	
	p46a	= Frequent use of Hymns in worship service	
	P46D	= rrequent use of Courses in Worship service'	
	P46C	= frequent use of worship bands in worship service'	
	p46a	= frequent use of thoir in worship service'	
o o sorri and i	p46e	= rrequent use or kesponsive reading in worship	
service'	- 166	I Present use of During de concluie and the	
	P461	= Frequent use of Drums in worship service'	
	p46g	= frequent use of Plano in worship service'	
	p46n	= rrequent use of Gultars in worship service'	
1		· · · · · · · · · · · · · · · · · · ·	
9			

p46i ='Frequent use of Drama in worship service' ='Frequent use of Dance in worship service' p46j p46k ='Frequent use of Hand clapping with songs in worship service' p461 ='Frequent use of Live video in worship service' p47 ='Church use pews or chairs for worship services: 1,2' ='# personal computers does the church use for p48 ministry' p49 ='have church website: 1,2' p50a ='Frequent use of E-mail: 1-' p50b ='Frequent use of Website: 1-' p50c ='Frequent use of Mass e-mail: 1-' p51Exchng='Exchange rate June 30,2005 http://fx.sauder.ubc.ca/data.html' p51a ='TOTAL expense budget' p51b ='EMMC general account' p51c ='EMMC designated projects' p51d ='Other overseas projects' p51e ='Non-staff training in your church' p51f ='Staff training' p51g ='Building and property maintenance' p51h ='Staff salary & benefits' p51i ='Service debt' p51j ='Building and property expansion' p51k ='Administration' p511 ='Post-secondary Christian education' p51m ='Needy people, food banks' ='Method church budgets to EMMC:' p52 p520ther='Other methods of EMMC budgeting' p53a ='\$ spent on Physical relief to people in your local church' p53b ='\$ spent on Physical relief in community but outside church' p53c ='\$ spent on Physical relief outside your community' p54a ='\$ budgeted for Local missionary outreach' p54b ='\$ budgeted for Other mission organizations' p54c ='\$ budgeted for Other EMMC and LIEAB churches' ='Total donations received' p55 p56 ='# donors were receipted by your church' ='church debt: \$' p57 ='debt for non-capital improvements & property p58 purchases: 1,2' ='planning a major effort in its life and p59 ministry: 1,2' p60 ='budget shortfall in 2005: 1,2' p61a ='Would use Organizational structure ideas: 1-5' p61b ='Would use Pastor hiring guide: 1-5' p61c ='Would use Staff salary guide: 1-5' p61d ='Would use Staff benefit package: 1-5' p61e ='Would use Church evaluation tools: 1-5' p61f ='Would use Spiritual gifts tools: 1-5' p61g ='Would use Bible study guides: 1-5' p61h ='Would use Structure guides: 1-5' p61i ='Would use Leadership training: 1-5' p61j ='Would use Job Descriptions: 1-5'; format SentD ReceivedD EnterD p19a6 date.;

```
run;
```

```
proc sort data=pastors; by EligibleB; run;
title4 'Response Rate of Pastors Questionnaires';
proc freq data=pastors;
  table Region*EnterId / missing nocol nopercent;
  by EligibleB;
  format Region region.;
run;
data pastorsE SasData.pastorsE;
  set pastors;
  if EligibleB=0 then delete;
run;
*Response Rate;
title3 'Response Rate';
data leaders;
  merge leaderslist (in=1) leaders1 (in=11) leaders2 (in=12);
  by LeaderId;
  if l;
run;
data leaders;
  set leaders;
  if LeaderId=9999 then delete;
  if BlankB ne 1 then BlankB=0;
  label
            ChurchId='Church Id'
            LeaderId='Leader Id'
            ReceivedD='Received date'
            EnterD
                        ='Date Entered'
                        ='Enterer Id: 1-Eddy, 2-Yolanda, 3-Susie,..'
            EnterId
            BlankB
                        ='Indicates Questionnaire was completely
Blank'
            PastorQ
                        ='Indicates completed Pastors Questionnaire'
            101
                        ='YEAR OF BIRTH: '
            102
                        ='GENDER: 1-2'
            103
                        ='MARITAL STATUS: 1-5'
            104
                        ='LANGUAGE did you first learn at home & still
understand: 1-7'
            1040ther='Other language'
            105
                        ='ETHNIC ORIGIN or cultural group your
ancestors belong: 1-7'
            1050ther='Other ethnic origin'
                        ='COUNTRY were you BORN: 1-4'
            106
            1060ther='Other country of birth'
            107
                        ='Certificates, diplomas, or degrees have you
obtained: 1-9,0'
            108a01
                        ='Attended Steinbach Bible College (but no
degree): 1,0'
            108b01
                        ='Diploma
                                   Steinbach Bible College: 1,0'
```

.

='Bachelors Steinbach Bible College: 1,0' 108c01 108d01 ='Masters Steinbach Bible College: 1,0' ='Doctorate Steinbach Bible College: 1,0' 108e01 108a02 ='Attended Aylmer Bible School (but no degree): 1,0' 108b02 ='Diploma Aylmer Bible School: 1,0' 108c02 ='Bachelors Aylmer Bible School: 1,0' 108d02 ='Masters Aylmer Bible School: 1,0' ='Doctorate Aylmer Bible School: 1,0' 108e02 108a03 - ='Attended Bethany Bible Institute (but no degree): 1,0' 108b03 ='Diploma Bethany Bible Institute: 1,0' 108c03 ='Bachelors Bethany Bible Institute: 1,0' 108d03 ='Masters Bethany Bible Institute: 1,0' 108e03 ='Doctorate Bethany Bible Institute: 1,0' ='Attended Steinrich Bible School (but no 108a04 degree): 1,0' ='Diploma Steinrich Bible School: 1,0' 108b04 ='Bachelors Steinrich Bible School: 1,0' 108c04 ='Masters Steinrich Bible School: 1,0' 108d04 108e04 ='Masters Steinrich Bible School: 1,0' 108a05 ='Attended Briercrest Bible College (but no degree): 1,0' Briercrest Bible College: 1,0' 108b05 ='Diploma 108c05 ='Bachelors Briercrest Bible College: 1,0' 108d05 ='Masters. Briercrest Bible College: 1,0' 108e05 ='Doctorate Briercrest Bible College: 1,0' ='Attended Providence College/ Seminary (but 108a06 no degree): 1,0' 108b06 ='Diploma Providence College/ Seminary: 1,0' ='Bachelors Providence College/ Seminary: 1,0' 108c06 Providence College/ Seminary: 1,0' 108d06 ='Masters ='Doctorate Providence College/ Seminary: 1,0' 108e06 108a07 ='Attended Winnipeg College/ Seminary (but no degree): 1,0' 108b07 ='Diploma Winnipeg College/ Seminary: 1,0' 108c07 ='Bachelors Winnipeg College/ Seminary: 1,0' Winnipeg College/ Seminary: 1,0' 108d07 ='Masters 108e07 ='Doctorate Winnipeg College/ Seminary: 1,0' 108a08 ='Attended Tyndale Bible College/Seminary (but no degree): 1,0' 108b08 ='Diploma Tyndale Bible College/Seminary: 1,0' 108c08 ='Bachelors Tyndale Bible College/Seminary: 1,0' 108d08 ='Masters Tyndale Bible College/Seminary: 1,0' ='Doctorate Tyndale Bible College/Seminary: 108e08 1,0'

='Attended Ontario Bible College/Seminary (but 108a09 no degree): 1,0' 108b09 Ontario Bible College/Seminary: ='Diploma 1,0' 108c09 ='Bachelors Ontario Bible College/Seminary: 1,0' Ontario Bible College/Seminary: 108d09 ='Masters 1,0' ='Doctorate Ontario Bible College/Seminary: 108e09 1,0' ='Attended Prairie Bible Institute (but no 108a10 degree): 1,0' 108b10 ='Diploma Prairie Bible Institute: 1,0' 108c10 ='Bachelors Prairie Bible Institute: 1,0' 108d10 ='Masters Prairie Bible Institute: 1,0' 108e10 ='Doctorate Prairie Bible Institute: 1,0' 108a11 ='Attended Emanuel Bible College (but no degree): 1,0' Emanuel Bible College: 1,0' 108b11 ='Diploma 108c11 ='Bachelors Emanuel Bible College: 1,0' Emanuel Bible College: 1,0' 108d11 ='Masters ='Doctorate Emanuel Bible College: 1,0' 108e11 108a12 ='Attended Heritage Bible College (but no degree): 1,0' Heritage Bible College: 1,0' 108b12 ='Diploma ='Bachelors Heritage Bible College: 1,0' 108c12 Heritage Bible College: 1,0' 108d12 ='Masters 108e12 ='Doctorate Heritage Bible College: 1,0' ='Attended Rio Grande Bible Institute (but no 108a13 degree): 1,0' 108b13 Rio Grande Bible Institute: 1,0' ='Diploma 108c13 ='Bachelors Rio Grande Bible Institute: 1,0' 108d13 ='Masters Rio Grande Bible Institute: 1,0' 108e13 ='Doctorate Rio Grande Bible Institute: 1,0' ='Attended Goshen College (but did not earn a 108a14 degree): 1,0' 108b14 ='Diploma Goshen College: 1,0' ='Bachelors Goshen College: 1,0' 108c14 Goshen College: 1,0' 108d14 ='Masters 108e14 ='Doctorate Goshen College: 1,0' 108a15 ='Attended Canadian Mennonite University (but no degree): 1,0' 108b15 ='Diploma Canadian Mennonite University: 1,0' 108c15 ='Bachelors Canadian Mennonite University: 1,0' 108d15 ='Masters Canadian Mennonite University: 1,0'

108e15 ='Doctorate Canadian Mennonite University: 1,0' 108a16 ='Attended Evangelical Anabaptist Seminary (but no degree): 1,0' 108b16 ='Diploma Evangelical Anabaptist Seminary: 1,0' 108c16 ='Bachelors Evangelical Anabaptist Seminary: 1,0' 108d16 Evangelical Anabaptist Seminary: ='Masters 1,0' 108e16 ='Doctorate Evangelical Anabaptist Seminary: 1,0' ='Attended Other School (but did not earn a 108a17 degree): 1,0' 108b17 ='Diploma Other School: 1,0' 108c17 ='Bachelors Other School: 1,0' 108d17 ='Masters Other School: 1,0' 108e17 ='Doctorate Other School: 1,0' 108170ther='Name of Other School: 1,0' ='Attended Elim Bible Institute (but not 108a18 degree): 1,0' ='Diploma Elim Bible Institute: 1,0' 108b18 108c18 ='Bachelors Elim Bible Institute: 1,0' ='Masters Elim Bible Institute: 1,0' 108d18 108e18 ='Doctorate Elim Bible Institute: 1,0' 108a19 ='Attended Nipawin Bible Institute (but no degree): 1,0' ='Diploma Nipawin Bible Institute: 1,0' 108b19 ='Bachelors Nipawin Bible Institute: 1,0' 108c19 108d19 ='Masters Nipawin Bible Institute: 1,0' ='Doctorate Nipawin Bible Institute: 1,0' 108e19 Winkler Bible Institute (but no ='Attended 108a20 degree): 1,0' 108b20 ='Diploma Winkler Bible Institute: 1,0' 108c20 ='Bachelors Winkler Bible Institute: 1,0' 108d20 ='Masters Winkler Bible Institute: 1,0' ='Doctorate Winkler Bible Institute: 1,0' 108e20 108a21 ='Attended Capenwray (but did not earn a degree): 1,0' 108b21 ='Diploma Capenwray: 1,0' 108c21 ='Bachelors Capenwray: 1,0' 108d21 ='Masters Capenwray: 1,0' 108e21 ='Doctorate Capenwray: 1,0' 108a22 ='Attended Impact Studies Alabama (but no degree): 1,0' 108b22 ='Diploma Impact Studies Alabama: 1,0' 108c22 ='Bachelors Impact Studies Alabama: 1,0' ='Masters Impact Studies Alabama: 1,0' 108d22 108e22 ='Doctorate Impact Studies Alabama: 1,0' 108a23 ='Attended Millar Institute of the Bible (but no degree): 1,0' 108b23 ='Diploma Millar Institute of the Bible: 1,0' 108c23 ='Bachelors Millar Institute of the Bible: 1,0' 108d23 ='Masters Millar Institute of the Bible: 1,0' 108e23 ='Doctorate Millar Institute of the Bible:

1,0'

109

='You come to first attend your current church:

='Time you attended your current church: 1-6' 110 111a ='Gift Rank - Teaching' l11b ='Gift Rank - Apostleship' l11c ='Gift Rank - Encouragement' 111d ='Gift Rank - Giving' 111e ='Gift Rank - Leadership' l11f ='Gift Rank - Mercy' 111g ='Gift Rank - Evangelism' 111h ='Gift Rank - Shepherding' 111i ='Gift Rank - Helps' 111j ='Gift Rank - Prophecy' l11k ='Gift Rank - Administration' 1111 ='Gift Rank - Hospitality' l11m ='Gift Rank - Intercession' 111n ='Gift Rank - Wisdom' 1110 ='Gift Rank - Knowledge' l11p ='Gift Rank - Faith' 111g ='Gift Rank - Discernment' l11r ='Gift Rank - Craftsmanship' 111s ='Gift Rank - Creative communication' l11t ='Gift Rank - Miracles' ll1u ='Gift Rank - Healing' l11v ='Gift Rank - Tongues' l11w ='Gift Rank - Interpretation' ='Spiritual gifts been affirmed: 1-5' 112 113a ='First job titles at your church' 113b ='Second job titles at your church' 113c ='Third job titles at your church' 113Pastor='Pastor was one of top 3 roles - assigned from 113abc: .,1' l13Pulpit='Pulpit(?) was top 3 roles - assigned from 113abc: .,1' 113Youth='Youth work was top 3 roles - assigned from 113abc: .,1' 113Board='Board was top 3 roles - assigned from 113abc: .,1' 113Council='Council was top 3 roles - assigned from 113abc: .,1' 113Elder='Elder was top 3 roles - assigned from 113abc: .,1' 113Admin='Admin/secretary was top 3 roles - assigned from 113abc: .,1' 113Reporter='Reporter was top 3 roles - assigned from 113abc: .,1' 113HR ='Human resources was top 3 roles - assigned from 113abc: .,1' 113Finance='Treasury/books was top 3 roles - assigned from 113abc: .,1' 113Maint='Maintinance was top 3 roles - assigned from 113abc: .,1' 113Cust='Custodian was top 3 roles - assigned from 113abc: .,1' 113Minist='Ministerial was top 3 roles - assigned from 113abc: .,1'

='Hospitality was top 3 roles - assigned from 113Hosp 113abc: .,1' 113Deacon='Deacon was top 3 roles - assigned from 113abc: .,1' 113Care='Care giving was top 3 roles - assigned from 113abc: ..1' 113Groups='Small Groups was top 3 roles - assigned from 113abc: .,1' 113YAdults='Young Adults was top 3 roles - assigned from 113abc: .,1' l13Mens ='Mens ministry was top 3 roles - assigned from 113abc: .,1' 113Ladies='Ladies ministry was top 3 roles - assigned from 113abc: .,1' 113Kids='Kids ministry was top 3 roles - assigned from 113abc: .,1' 113Nursery='Nursery was top 3 roles - assigned from 113abc: .,1' 113SpGifts='SpGifts was top 3 roles - assigned from 113abc: .,1' l13Disc ='Discipleship was top 3 roles - assigned from 113abc: .,1' 113Mentor='Mentorship was top 3 roles - assigned from 113abc: .,1' 113Ed ='Education was top 3 roles - assigned from 113abc: .,1' 113SSS ='SS Super was top 3 roles - assigned from 113abc: .,1' 113Teach='Teaching was top 3 roles - assigned from 113abc: .,1' 113Library='Library was top 3 roles - assigned from 113abc: .,1' 113Worship='Worship/music was top 3 roles - assigned from 113abc: .,1' 113Missons='Missions was top 3 roles - assigned from 113abc: .,1' 114 ='Church body do you serve: 1-3' 1140ther='Other church body' 115 ='week # you spend in the ministry of your local church: 1-5' ='week, # you spend in associated Christian 116 organizations: 1-5' ='week, # hours do you spend on community 117 organizations: 1-5' 118 ='# minutes take to drive to church worship services: 1-8' ='Have you visited missionaries in another 119 country: 1-2' ='Have you visited another cultural group in 120 Canada: 1-2' ='Part of small group meets twice month for 121 community..: 1-2' ='Part of small group meets regularly for 122 Bible study: 1-2' ='In 2005, your small group form another small 123 group: 1-2'

124a ='Leadership development last year - Attended seminar: 1-2' 124b ='Leadership development last year - Taught class: 1-2' 124c ='Leadership development last year - Planned seminar: 1-2' 124d ='Leadership development last year - Mentored someone: 1-2' 124e ='Leadership development last year - Read a book: 1-21 ='How often do you receive a personal 125 evaluation: 1-4' ='Do you - Live a simple lifestyle: 1-5' 126a 126b ='Do you - Be accountable to others: 1-5' ='Do you - Physically care for others: 1-5' 126c ='Do you - Consult Bible for decisions: 1-5' 126d ='Required for membership - Baptism: 1-5' 127a ='Required for membership - Rebaptism if baptized as 127b infants: 1-5' 127c ='Required for membership - Rebaptism if baptized as non-Xians: 1-5' 127d ='Required for membership - People must be born again: 1-5' 128a ='Church discipline is practiced for erring members.: 1-5' 128b ='Actively reaches to other ethnic or groups.: 1-5' 128c ='Actively reaches to other social or cultural groups.: 1-5' 128d ='Is different from the neighbourhood by the unique lifestyle: 1-5' ='It is evident that the members follow Jesus: 1-5' 128e ='Should be reserved for descendents of Mennonite 128f immigrants: 1-5' 129a ='True about Bible - The OT must be interpreted by NT: 1-5' 129b ='True about Bible - ethics must be derived primarily from the NT: 1-5' 129c ='True about Bible - ethics must come equally from both the NT/OT: 1-5' 129d ='True about Bible - NT interpreted by life & teachings of Jesus: 1-5' 129e ='True about Bible - teachings of Jesus too hard for Christians: 1-5' 129f ='True about Bible - Bible & traditions equal quide Christian: 1-5' 130a ='True about faith - significance of Jesus is future salvation: 1-5' 130b ='True about faith - Following Christ daily in life is necessary: 1-5' 130c ='True about faith - Faith inside will show in action: 1-5' 130d -= 'True about faith - Is best seen in the life of Jesus: 1-5' 130e ='True about faith - Is a private matter between God and me: 1-5' 130f ='True about faith - The teachings of Jesus evident in my life: 1-5'

131a ='Believe about justice - may use violent to protect family: 1-5' 131b ='Believe about justice - War may be justified in some instances: 1-5' 131c ='Believe about justice - more important sp than phys help: 1-5' 131d ='Believe about justice - Christians help society be more just: 1-5' 131e ='Believe about justice - Christian job to phys care neighbour: 1-5' 132a ='Compromise your Christian faith - Federal policeman: 1-5' 132b ='Compromise your Christian faith - Local politician: 1-5" 132c ='Compromise your Christian faith - Public school teacher: 1-5' 132d ='Compromise your Christian faith - Lawyer: 1-5' 132e = 'Compromise your Christian faith - Medical doctor: 1-5" 132f ='Compromise your Christian faith - Judge: 1-5' 132g ='Compromise your Christian faith - Military service: 1-5' 132h = Compromise your Christian faith - Prison guard: 1-51 132i = Compromise your Christian faith - Police officer: 1-5' 133a ='Christian could participate - Sing national anthem: 1-5' 133b ='Christian could participate - Vote in a federal election: 1-5' 133c ='Christian could participate - Observe national holidays: 1-5' 133d ='Christian could participate - Pay taxes: 1-5' 133e ='Christian could participate - Fly the national flag at home: 1-5' 133f ='Christian could participate - Serve on a criminal case jury: 1-5' 133g ='Christian could participate - Swear an oath: 1-5' 133h ='Christian could participate - Serve in military after a draft: 1-5' 133i ='Christian could participate - Business with non-Christians: 1-5' 133j ='Christian could participate - Observe war memorial days: 1-5' 134a ='Church serve - Children: 1-5' 134b ='Church serve -Pre-teens: 1-5' 134c ='Church serve -Youth: 1-5' 134d ='Church serve - Young adults: 1-5' 134e = 'Church serve -Newly weds: 1-5' 134f ='Church serve -Parents of children: 1-5' 134g ='Church serve -Empty nesters: 1-5' 134h ='Church serve -Elderly: 1-5' 134i ='Church serve -Single adults: 1-5' 134j ='Church serve -Widows/ widowers: 1-5' 134k ='Church serve - Broken families: 1-5' 1341 ='Church serve -Other cultures: 1-5' 134m ='Church serve -Single parents: 1-5'

='Has your board work load increased since church 142a structure: 1-5' 142b ='Has your board work load decreased since church structure: 1-5' ='Does the conference promote itself to their 143 members: 1-5' 144a ='# times have you been a delegate at the EMMC convention: 1-5' 144b ='# times have you served a term on a conference board or council: 1-5' 145a ='Understand the tasks of - General council: 1-5' 145b ='Understand the tasks of - Ministerial resource council: 1-5' 145c ='Understand the tasks of - Board of mission and service: 1-5' 145d ='Understand the tasks of - Ministerial council: 1-51 146a ='Help growth of conference - General council: 1-5' ='Help growth of conference - Ministerial resource 146b council: 1-5' 146c ='Help growth of conference - Board of mission and service: 1-5' 146d ='Help growth of conference - Ministerial council: 1-5' 146e ='Help growth of conference - Budget: 1-5' 146f ='Help growth of conference - Church planting: 1-5' 146g ='Help growth of conference - Overseas missions: 1-51 146h ='Help growth of conference - Vision and inspiration: 1-5" 146i ='Help growth of conference - Resources sharing: 1-51 146j ='Help growth of conference - Other - specify: 1-5' 146jOther='Help growth of conference - Other' 147a ='Challenges to conference in next 5 years - Aging members: 1-5' 147b ='Challenges to conference in next 5 years - Funding: 1-5' 147c ='Challenges to conference in next 5 years -Structure: 1-5' 147d ='Challenges to conference in next 5 years - Vision: 1-5' 147e ='Challenges to conference in next 5 years - Church planting: 1-5' 147f ='Challenges to conference in next 5 yrs -Theological differences: 1-5' 147g ='Challenges to conference in next 5 yrs -Generation gap: 1-5' 147h = Challenges to conference in next 5 yrs - Regional differences: 1-5' 147i ='Challenges to conference in next 5 years -Physical separation: 1-5' 147j ='Challenges to conference in next 5 years - Pastors shortage: 1-5' 147k ='Challenges to conference in next 5 yrs -Conference leadership: 1-5'

137r ='Encouraged 5-year attendance growth -Accessibility: 1-5' 137s ='Encouraged 5-year attendance growth - Meeting budget: 1-5' 137t ='Encouraged 5-year attendance growth - Identified target group: 1-5' 137u ='Encouraged 5-year attendance growth - Pastor: 1-5' 137v ='Encouraged 5-year attendance growth - Teaching: 1-51 137w ='Encouraged 5-year attendance growth - Prayer: 1-5' 137x ='Encouraged 5-year attendance growth - Revival: 1-51 137y ='Encouraged 5-year attendance growth -Reconciliation: 1-5' 137z ='Encouraged 5-year attendance growth - Discipleship: 1-5' 137za ='Encouraged 5-year attendance growth - Missions: 1-51 137zb ='Encouraged 5-year attendance growth - Freedom from bondage: 1-5' 137zc ='Encouraged 5-year attendance growth - Care to community: 1-5' 137zd ='Encouraged 5-year attendance growth - Outreach to community: 1-5' 137ze = 'Encouraged 5-year attendance growth - Church plant(s): 1-5'137zf ='Encouraged 5-year attendance growth - Other 1 specify: 1-5' 137zfOther='Encouraged 5-year attendance growth - Other1' 137zg ='Encouraged 5-year attendance growth - Other 2 specify: 1-5' 137zgOther='Encouraged 5-year attendance growth - Other2' 138a ='Church challenges in 5 years - Aging members: 1-5' 138b ='Church challenges in 5 years - Competition for donations: 1-5' 138c ='Church challenges in 5 years - Blended families: 1-5' 138d ='Church challenges in 5 years - Family moving away: 1-5' 138e ='Church challenges in 5 years - Preaching: 1-5' ='Church challenges in 5 years - Leadership: 1-5' 138f 138g ='Church challenges in 5 years - Community acceptance: 1-5' 138h ='Church challenges in 5 years - Other - specify: 1-5' 138hOther='Church challenges in 5 years - Other' 139 ='Your church organizational structure been in place: 1-5' 140a ='Your own work load increased since church structure: 1-5' ='Has your own work load decreased since church 140b structure: 1-5' 141a ='Has church life improved since your structure: 1-. 5' . 141b ='Has church life declined since your structure: 1-51

142a ='Has your board work load increased since church structure: 1-5' 142b ='Has your board work load decreased since church structure: 1-5' ='Does the conference promote itself to their 143 members: 1-5' 144a ='# times have you been a delegate at the EMMC convention: 1-5' 144b ='# times have you served a term on a conference board or council: 1-5' 145a ='Understand the tasks of - General council: 1-5' 145b ='Understand the tasks of - Ministerial resource council: 1-5' 145c ='Understand the tasks of - Board of mission and service: 1-5' 145d ='Understand the tasks of - Ministerial council: 1-51 ='Help growth of conference - General council: 1-5' 146a 146b ='Help growth of conference - Ministerial resource council: 1-5' 146c ='Help growth of conference - Board of mission and service: 1-5' 146d ='Help growth of conference - Ministerial council: 1-51 146e ='Help growth of conference - Budget: 1-5' ='Help growth of conference - Church planting: 1-5' 146f 146g ='Help growth of conference - Overseas missions: 1-51 146h ='Help growth of conference - Vision and inspiration: 1-5* 146i ='Help growth of conference - Resources sharing: 1-51 ='Help growth of conference - Other - specify: 1-5' 146j 146jOther='Help growth of conference - Other' 147a ='Challenges to conference in next 5 years - Aging members: 1-5' 147b = 'Challenges to conference in next 5 years - Funding: 1-5' 147c ='Challenges to conference in next 5 years -Structure: 1-5' 147d ='Challenges to conference in next 5 years - Vision: 1-5' 147e ='Challenges to conference in next 5 years - Church planting: 1-5' 147f ='Challenges to conference in next 5 yrs -Theological differences: 1-5' 147g ='Challenges to conference in next 5 yrs -Generation gap: 1-5' 147h = Challenges to conference in next 5 yrs - Regional differences: 1-5' 147i ='Challenges to conference in next 5 years -Physical separation: 1-5' 147j ='Challenges to conference in next 5 years - Pastors shortage: 1-5' 147k ='Challenges to conference in next 5 yrs -Conference leadership: 1-5'

1471 ='Challenges to conference in next 5 years - Other specify: 1-5' 14710ther='Challenges to conference in next 5 years -Other' 148a ='Strengths of our conference - General council: 1-51 148b ='Strengths of our conference - Ministerial resource council: 1-5' 148c ='Strengths of our conference - Board of mission and service: 1-5' 148d ='Strengths of our conference - Ministerial council: 1-5' 148e ='Strengths of our conference - Overseas missions: 1-5' 148f ='Strengths of our conference - Funding: 1-5' 148g ='Strengths of our conference - Structure: 1-5' 148h ='Strengths of our conference - Vision: 1-5' 148i ='Strengths of our conference - Church planting: 1-51 148j ='Strengths of our conference - Theological differences: 1-5' 148k ='Strengths of our conference - Generation gap: 1-5' 1481 ='Strengths of our conference - Regional differences: 1-5' 148m ='Strengths of our conference - Physical separation: 1-5' 148n ='Strengths of our conference - Pastors development: 1-5' 1480 ='Strengths of our conference - Conference leadership: 1-5' 148p ='Strengths of our conference - Other - specify: 1-51 148pOther='Strengths of our conference - Other' 149a ='Read the Recorder - Print version: 1-5! 149b ='Read the Recorder - On-line version: 1-5' 149c = 'Read the Recorder - Lead article: 1-5' 149d ='Read the Recorder - Missionary updates: 1-5' 149e ='Read the Recorder - Prayer guide: 1-5! 150a ='Church need assistance in - Financial: 1-5' 150b ='Church need assistance in - Administrative: 1-5' 150c ='Church need assistance in - Organizational structure: 1-5' 150d ='Church need assistance in - Policy, by-laws etc.: 1-5" 150e ='Church need assistance in - Job descriptions: 1-5' 150f ='Church need assistance in - Preaching or pulpit exchange: 1-5' 150g ='Church need assistance in - Teaching exchange: 1-51 150h ='Church need assistance in - Leadership development: 1-5' 150i ='Church need assistance in - Vision and inspiration: 1-5' 150j ='Church need assistance in - Crises help: 1-5' 151a ='Your church receives from the EMMC - Financial: 1-51

151b ='Your church receives from the EMMC . Administrative: 1-5' 151c ='Your church receives from the EMMC -Organizational structure: 1-5' 151d ='Your church receives from the EMMC - Policy, bylaws, etc.: 1-5' 151e ='Your church receives from the EMMC - Job descriptions: 1-5' 151f ='Your church receives from the EMMC -Preaching/pulpit exchange: 1-5' 151g ='Your church receives from the EMMC - Teaching exchange: 1-5' 151h ='Your church receives from the EMMC - Leadership development: 1-5' 1511 ='Your church receives from the EMMC - Vision and inspiration: 1-5' 151j ='Your church receives from the EMMC - Crises help: 1-5' 152 ='Use conference quideline set staff salary: 1-5' 153a ='Do you set salaries above the conference guidelines: 1-5' 153b ='You set salaries below the conference guidelines: 1-5' 154a ='Your pastor a shepherd of the church: 1-5' 154b ='Your pastor a Chief Executive Officer (CEO): 1-5' 154c ='Your pastor a manager of the church: 1-5'; format ReceivedD EnterD date.; run; title4 'Entered Ineligibles'; proc print data=leaders; var ChurchId LeaderId Region Pastor EligibleB BlankB ReceivedD EnterD EnterId; where EligibleB=0 and EnterId ne .; run; proc freq data=leaders; table Region Pastor EligibleB*BlankB*EnterId / list missing; format EnterId missing.; run; * Remove ineligible leaders from list; data leadersE SasData.leadersE; set leaders; if EligibleB=0 and (BlankB=1 or EnterId=.) then delete; run; proc sort data=leadersE; by EligibleB; run;

title4 'Response Rate of Leaders Questionnaires';

proc freq data=leadersE; table Region*EnterId / missing nocol nopercent; format Region region.;

```
run;
proc sort data=leadersE; by ChurchId LeaderId; run;
proc freq data=leadersE noprint;
  table ChurchId / out=ChurchLeaders;
  table BlankB / out=BlankLeaders;
  table EnterId / out=ReturnedLeaders;
  by ChurchId;
  format EnterId missing.;
run;
data BlankLeaders;
  set BlankLeaders;
  if BlankB=1;
  NumBlank=Count;
  label NumBlank='Number of Blank Questionnaires Returned';
run;
data ReturnedLeaders;
  set ReturnedLeaders;
  if EnterId ne .;
  NumReturned=Count; * includes blank returned questionnaires (for now);
  label NumReturned='Number of Non-blank Leaders Questionnaires
Returned';
run;
*Church Response Table;
title3 'Church Response';
proc sort data=PastorsE; by ChurchId; run;
proc sort data=ChurchLeaders; by ChurchId; run;
data ChurchResponse;
 merge PastorsE (in=c keep= Region ChurchId EnterId)
            ChurchLeaders (in=1 keep= ChurchId Count rename=
count=NumLeaders)
            BlankLeaders (in=l keep= ChurchId NumBlank)
            ReturnedLeaders (in=1 keep= ChurchId NumReturned);
  by ChurchId;
  if c;
  if NumReturned=. then NumReturned=0;
  if NumBlank=. then NumBlank=0;
  NumReturned=NumReturned-NumBlank; * count only filled out completed;
  ResponseRate=NumReturned/NumLeaders;
  if EnterId ne . then NumPastors=1;else NumPastors=0;
  label NumLeaders='Numbers of leaders receiving questionnaires'
           NumPastors='One indicates pastors returning questionnaires:
0.1'
            ResponseRate='Proportion of leaders returning
questionnaires ';
run;
* Response Table;
title4 'Response Table';
proc print data=ChurchResponse;
  var Region ChurchId NumPastors NumLeaders NumBlank NumReturned
ResponseRate;
  format ResponseRate percent. ;*NumPastors missing. ;
```

run;

```
* Region Response Table;
proc means data=ChurchResponse n sum;
var NumPastors NumLeaders NumBlank NumReturned;
by Region;
format NumPastors missing.;
run;
* Total Response Table;
```

```
proc means data=ChurchResponse n sum;
  var NumPastors NumLeaders NumBlank NumReturned;
  format NumPastors missing.;
run;
```

```
data SasData.ChurchResponse;
   set ChurchResponse;
run;
```

*;

```
proc freq data=pastorsE;
```

```
tables ReceivedD*Region / missing nocol norow nopercent;
format Region region. ReceivedD weeku3.;
run;
```

```
proc freq data=leadersE;
```

```
tables ReceivedD*Region / missing nocol norow nopercent;
format Region region. ReceivedD weeku3.;
run;
```

```
title4 'Pastors';
proc contents data=pastorsE; run;
```

```
title4 'Leaders';
proc contents data=leadersE; run;
```

```
*Missing Variables;
title3 'Missing Variables';
```

```
title4 'Pastors';
proc freq data=pastorsE;
table Region ChurchId SentD ReceivedD EnterD EnterId
```

format Region ChurchId SentD ReceivedD EnterD EnterId

p56 p57 p58 p59 p60 p61a p61b p61c p61d p61e p61f p61g p61h p61i p61j / list

p51i p51j p51k p51l p51m p52 p520ther p53a p53b p53c p54a p54b p54c p55

p48 p49 p50a p50b p50c p51Exchng p51a p51b p51c p51d p51e p51f p51g p51h

p45j p45k p45l p45m p45n p45o p45p p45q p46a p46b p46c p46d p46e p46f p46g p46h p46i p46j p46k p46l p47

p45i

missing;

p44i p44j p44k p44l p44m p44mOther p45a p45b p45c p45d p45e p45f p45g p45h

p37h2 p37h3 p37i1 p37i2 p37i3 p37j1 p37j2 p37j3 p38a p38b p39a p39b p40 p41a p41b p41c p42 p43 p44a p44b p44c p44d p44e p44f p44g p44h

p37d2 p37d3 p37e1 p37e2 p37e3 p37f1 p37f2 p37f3 p37g1 p37g2 p37g3 p37h1

p30AdLim9 p30AdNoL1-p30AdNoL4 p31 p32 p33a p33b p33c p34 p35 p35x p36 p37a1 p37a2 p37a3 p37b1 p37b2 p37b3 p37c1 p37c2 p37c3 p37d1

p27 p28a p28b p28c p28d p28dOther p29 p30a p30b p30c p30AdLim1-

p23m p23n p23o p23p p24a p24b p24c p24d p24e p24f p25a p25b p25c p25d p25e p25f p26

p21b1 p21b2 p21b3 p21c1 p21c2 p21c3 p21d1 p21d2 p21d3 p21e1 p21e2 p21e3 p22 p23a p23b p23c p23d p23e p23f p23g p23h p23i p23j p23k p231

p19c5 p19c6 p19d1 p19d2 p19d3 p19d4 p19d5 p19d6 p20 p21a1 p21a2 p21a3

p19a3 p19a4 p19a5 p19a6 p19b1 p19b2 p19b3 p19b4 p19b5 p19b6 p19c1 p19c2 p19c3 p19c4

p160ther p17a p17b p17c p17d p17e p17f p17g p17gOther p18 p19a1 p19a2

p15a p15b p15c p15d p15e p15f p15g p15h p15i p15j p15k p15l p15m p15n p15o p15p p15q p15r p15s p15t p15u p15v p15vOther p15w p15wOther p16

pllml pllm2 pl2a pl2b pl2c pl2d pl2e pl2f pl2g pl2h pl2i pl2j pl2k pl2kOther pl3 pl4

p11b1 p11b2 p11c1 p11c2 p11d1 p11d2 p11e1 p11e2 p11f1 p11f2 p11g1 p11g2 p11h1 p11h2 p11i1 p11i2 p11j1 p11j2 p11k1 p11k2 p11l1 p1112

p09ml p09m2 p10al p10a2 p10a3 p10a4 p10b1 p10b2 p10b3 p10b4 p10c1 p10c2 p10c3 p10c4 p10d1 p10d2 p10d3 p10d4 p10e1 p10e2 p10e3 p10e4 p11al p11a2

p09a1 p09a2 p09b1 p09b2 p09c1 p09c2 p09d1 p09d2 p09e1 p09e2 p09f1 p09f2 p09g1 p09g2 p09h1 p09h2 p09i1 p09i2 p09j1 p09j2 p09k1 p09k2 p09l1 p09l2 p09m1 p09m2 p10a1 p10a2 p10a3 p10a4 p10b1 p10b2 p10b3 p10b4

p01 p02a p02b p03a p03b p04a p04b p05 p06a p06b p06c p06d p07a p07b p07c p08a1 p08a2 p08a3 p08a4 p08b1 p08b2 p08b3 p08b4 p08c1 p08c2 p08c3 p08c4

p08a1 p08a2 p08a3 p08a4 p08b1 p08b2 p08b3 p08b4 p08c1 p08c2 p08c3 p08c4 p09a1 p09a2 p09b1 p09b2 p09c1 p09c2 p09d1 p09d2 p09e1 p09e2 p09f1 p09f2 p09g1 p09g2 p09h1 p09h2 p09i1 p09i2 p09j1 p09j2 p09k1 p09k2 p0911 p0912 p09m1 p09m2 p10a1 p10a2 p10a3 p10a4 p10b1 p10b2 p10b3 p10b4 p10c1 p10c2 p10c3 p10c4 p10d1 p10d2 p10d3 p10d4 p10e1 p10e2 p10e3 p10e4 p11a1 p11a2 pllbl pllb2 pllc1 pllc2 plld1 plld2 plle1 plle2 pllf1 pllf2 p11g1 p11g2 pllhl pllh2 plli1 plli2 pllj1 pllj2 pllk1 pllk2 plll1 plll2 p11m1 p11m2 p12a p12b p12c p12d p12e p12f p12g p12h p12i p12j p12k p13 p14 p15a p15b p15c p15d p15e p15f p15g p15h p15i p15j p15k p15l p15m p15n p15o p15p p15q p15r p15s p15t p15u p15v p15w p16 p17a p17b p17c p17d p17e p17f p17g p18 p19a5 p19b5 p19c5 p19d5 p19a6 p19b6 p19c6 p19d6 p20 p21a1 p21a2 p21a3 p21b1 p21b2 p21b3 p21c1 p21c2 p21c3 p21d1 p21d2 p21d3 p21e1 p21e2 p21e3 p22 p23a p23b p23c p23d p23e p23f p23g p23h p23i p23j p23k p23l p23m p23n p23o p23p p25a p25b p25c p25d p25e p25f p27 p28a p28b p28c p28d p29 p31 p32 p33a p33b p33c p34 p36 p37a1 p37a2 p37a3 p37b1 p37b2 p37b3 p37c1 p37c2 p37c3 p37d1 p37d2 p37d3 p37e1 p37e2 p37e3 p37f1 p37f2 p37f3 p37g1 p37g2 p37g3 p37h1 p37h2 p37h3 p37i1 p37i2 p37i3 p37j1 p37j2 p37j3 p38x p39a p39b p40 p41a p41b p41c p42 p43 p44a p44b p44c p44d p44e p44f p44g p44h p44i p44j p44k p441 p44m p45a p45b p45c p45d p45e p45f p45g p45h p45i p45j p45k p45l p45m p45n p45o p45p p45q p46a p46b p46c p46d p46e p46f p46g p46h p46i p46j p46k p46l p47 p48 p49 p50a p50b p50c p51Exchng p51a p51b p51c p51d p51e p51f p51g p51h p51i p51j p51k p51l p51m p52 p53a p53b p53c p54a p54b p54c p55 p56 p57 p58 p59 p60 p61a p61b p61c p61d p61e p61f p61g p61h p61i p61j missing. p07a p07b p07c p12k0ther p15v0ther p17g0ther p15w0ther p160ther p19a1 p19a3 p19a4 p19b1 p19b3 p19b4 p19c1 p19c3 p19c4 p19d1 p19d3 p19d4 p24a p24b p24c p24d p24e p24f p26 p28dOther p30a p30b p30c p35 p38a p38b p44mOther p520ther \$missing.; run;

p01 p02a p02b p03a p03b p04a p04b p05 p06a p06b p06c p06d

title4 'Leaders';
proc freq data=leadersER;

table Region LeaderId ReceivedD EnterD EnterId BlankB PastorQ 101 102 103 104 105 106 107 108a01 108b01 108c01 108d01 108e01 108a02 108b02 108c02 108d02 108e02 108a03 108b03 108c03 108d03 108e03 108a04 108b04 108c04 108d04 108e04 108a05 108b05 108c05 108d05 108e05 108a06 108b06 108c06 108d06 108e06 108a07 108b07 108c07 108d07 108e07 108a08 108b08 108c08 108d08 108e08 108a09 108b09 108c09 108d09 108e09 108a10 108b10 108c10 108d10 108e10 108a11 108b11 108c11 108d11 108e11 108a12 108b12 108c12 108d12 108e12 108a13 108b13 108c13 108d13 108e13 108a14 108b14 108c14 108d14 108e14 108a15 108b15 108c15 108d15 108e15 108a16 108b16 108c16 108d16 108e16 108a17 108b17 108c17 108d17 108e17 108170ther 108a18 108b18 108c18 108d18 108e18 108a19 108b19 108c19 108d19 108e19 108a20 108b20 108c20 108d20 108e20 108a21 108b21 108c21 108d21 108e21 108a22 108b22 108c22 108d22 108e22 108a23 108b23 108c23 108d23 108e23 109 110 111a 111b 111c 111d 111e 111f 111g 111h 111i 111j 111k 1111 111m 111n 111o 111p 111q 111r 111s 111t 111u 111v 111w 112 113a 113b 113c 113Pastor 113Pulpit 113Youth 113Board 113Council 113Elder 113Admin 113Reporter 113HR 113Finance 113Maint 113Cust 113Minist 113Hosp 113Deacon 113Care 113Groups 113YAdults 113Mens 113Ladies 113Kids 113Nursery 113SpGifts 113Disc 113Mentor 113Ed 113SSS 113Teach 113Library 113Worship 113Missons 114 1140ther 115 116 117 118 119 120 121 122 123 124a 124b 124c 124d 124e 125 126a 126b 126c 126d 127a 127b 127c 127d 128a 128b 128c 128d 128e 128f 129a 129b 129c 129d 129e 129f 130a 130b 130c 130d 130e 130f 131a 131b 131c 131d 131e 132a 132b 132c 132d 132e 132f 132g 132h 132i 133a 133b 133c 133d 133e 133f 133g 133h 133i 133j 134a 134b 134c 134d 134e 134f 134g 134h 134i 134j 134k 1341 134m 134n 1340 135 136a 136b 136c 136d 136e 136f 136g 136h 136i 136j 136k 1361 136m 136n 136o 136p 136g 136r 136rOther 137a 137b 137c 137d 137e 137f 137g 137h 137i 137j 137k 1371 137m 137n 137o 137p 137q 137r 137s 137t 137u 137v 137w 137x 137y 137z 137za 137zb 137zc 137zd 137ze 137zf 137zfOther 137zg 137zgOther
138a 138b 138c 138d 138e 138f 138g 138h 138hOther 139 140a 140b 141a 141b 142a 142b 143 144a 144b 145a 145b 145c 145d 146a 146b 146c 146d 146e 146f 146g 146h 146i 146j 146jOther 147a 147b 147c 147d 147e 147f 147g 147h 147i 147j 147k 1471 14710ther 148a 148b 148c 148d 148e 148f 148g 148h 148i 148j 148k 1481 148m 148n 1480 148p 148pOther 149a 149b 149c 149d 149e 150a 150b 150c 150d 150e 150f 150g 150h 150i 150j 151a 151b 151c 151d 151e 151f 151g 151h 151i 151j 152 153a 153b 154a 154b 154c / list missing; format Region LeaderId ReceivedD EnterD EnterId 101 102 103 104 105 106 107 108a01 108b01 108c01 108d01 108e01 108a02 108b02 108c02 108d02 108e02 108a03 108b03 108c03 108d03 108e03 108a04 108b04 108c04 108d04 108e04 108a05 108b05 108c05 108d05 108e05 108a06 108b06 108c06 108d06 108e06 108a07 108b07 108c07 108d07 108e07 108a08 108b08 108c08 108d08 108e08 108a09 108b09 108c09 108d09 108e09 108a10 108b10 108c10 108d10 108e10 108a11 108b11 108c11 108d11 108e11 108a12 108b12 108c12 108d12 108e12 108a13 108b13 108c13 108d13 108e13 108a14 108b14 108c14 108d14 108e14 108a15 108b15 108c15 108d15 108e15 108a16 108b16 108c16 108d16 108e16 108a17 108b17 108c17 108d17 108e17 108a18 108b18 108c18 108d18 108e18 108a19 108b19 108c19 108d19 108e19 108a20 108b20 108c20 108d20 108e20 108a21 108b21 108c21 108d21 108e21 108a22 108b22 108c22 108d22 108e22 108a23 108b23 108c23 108d23 108e23 109 110 111a 111b 111c 111d 111e 111f 111g 111h 111i 111j 111k 1111 111m 111n 111o 111p 111q 111r 111s 111t 111u 111v 111w 112 113Pastor 113Pulpit 113Youth 113Board 113Council 113Elder 113Admin 113Reporter 113HR 113Finance 113Maint 113Cust 113Minist 113Hosp 113Deacon 113Care 113Groups 113YAdults 113Mens 113Ladies 113Kids 113Nursery 113SpGifts 113Disc 113Mentor 113Ed 113SSS 113Teach 113Library 113Worship 113Missons 114 115 116 117 118 119 120 121 122 123 124a 124b 124c 124d 124e 125 126a 126b 126c 126d 127a 127b 127c 127d 128a 128b 128c 128d 128e 128f 129a 129b 129c 129d 129e

129f 130a 130b 130c 130d 130e 130f 131a 131b 131c 131d 131e 132a 132b 132c 132d 132e 132f 132g 132h 132i 133a 133b 133c 133d 133e 133f 133g 133h 133i 133j 134a 134b 134c 134d 134e 134f 134g 134h 134i 134j 134k 1341 134m 134n 1340 135 136a 136b 136c 136d 136e 136f 136g 136h 136i 136j 136k 1361 136m 136n 136o 136p 136q 136r 137a 137b 137c 137d 137e 137f 137g 137h 137i 137j 137k 1371 137m 137n 137o 137p 137q 137r 137s 137t 137u 137v 137w 137x 137y 137z 137za 137zb 137zc 137zd 137ze 137zf 137zg 138a 138b 138c 138d 138e 138f 138g 138h 139 140a 140b 141a 141b 142a 142b 143 144a 144b 145a 145b 145c 145d 146a 146b 146c 146d 146e 146f 146g 146h 146i 146j 147a 147b 147c 147d 147e 147f 147g 147h 147i 147j 147k 1471 148a 148b 148c 148d 148e 148f 148g 148h 148i 148j 148k 1481 148m 148n 1480 148p 149a 149b 149c 149d 149e 150a 150b 150c 150d 150e 150f 150g 150h 150i 150j 151a 151b 151c 151d 151e 151f 151g 151h 151i 151j 152 153a 153b 154a 154b 154c missing.; run;

data SasData.pastors; set pastorsE; run;

data SasData.leaders; set leadersER; run;

* EMMC Growth Patterns; * Surveys Pre-Analysis; libname SasData 'C:\Shared Documents and Such\Education\McMaster School Thesis Project\Data\SASData'; options nodate pageno=1; options pageno=1 pagesize=52 linesize=90 date; title1 'Masters Project: EMMC Growth Data'; title2 'Preparation for Analysis of EMMC Pastors and Leaders Survey Data'; data emmc; set SasData.emmc; run; data pastors; set SasData.pastors; run; data leaders; set SasData.leaders; run; data Pastor; set Pastors; *set missing variables to 0 where it implies such; if EnterId ne . then do; if p04a=. then p04a=0; if p04b=. then p04b=0; if p06b=. then p06b=0; if p06c=. then p06c=0; if p06d=. then p06d=0; if p06a=. then p06a=sum(p06b,p06c,p06d); if p08a1=. then p08a1=0; if p08a2=. then p08a2=0; if p08a3=. then p08a3=0; if p08a4=. then p08a4=0; if p08b1=. then p08b1=0; if p08b2=. then p08b2=0; if p08b3=. then p08b3=0; if p08b4=. then p08b4=0; if p08c1=. then p08c1=0; if p08c2=. then p08c2=0; if p08c3=. then p08c3=0; if p08c4=. then p08c4=0; if p09a1=. then p09a1=0; if p09a2=. then p09a2=0; if p09b1=. then p09b1=0; if p09b2=. then p09b2=0; if p09c1=. then p09c1=0; if p09c2=. then p09c2=0; if p09d1=. then p09d1=0;

,											
		if p09d2=.	then r	09d2=0:							
		if $p09e1=$	then r	0.9e1=0:							
		if p(9e2=	then r	0902=0:							
		if p 0 9 f 1 -	thon n	0961-0,							
		11 p0911	then p	0911-0;							
		11 p0912-,	then p	0.0-1-0;							
		11 p09g1=.	then p	09g1=0;							
		11 p09g2=.	then p	09g2=0;							
		11 p09h1=.	then p	09h1=0;							
		11 p09h2=.	then p	09h2=0;							
		1f p0911=.	then p	0911=0;							
		if p09i2=.	then p	0912=0;							
		if p09j1=.	then p	09j1=0;							
		if p09j2=.	then p	09j2=0;							
		if p09k1=.	then p	09k1=0;	*						
		if p09k2=.	then p	09k2=0;				-			
		if p0911=.	then p	0911=0;							
		if p0912=.	then p	0912=0;							
		if p09m1=.	then p	09m1=0;							
		if p09m2=.	then p	09m2=0;							
		if p10a1=.	then p	10a1=0;							
		if p10a2=.	then p	10a2=0;							£
		if p10a3=.	then p	10a3=0;							
		if p10a4=.	then p	10a4=0;							
		if p10b1=.	then p	10b1=0;							
		if p10b2=.	then p	10b2=0;							
		if p10b3=.	then p	10b3=0;							
		if p10b4=.	then p	10b4=0;					*		
		if p10c1=,	then p	10c1=0;							
		if p10c2=.	then p	10c2=0;							
		if p10c3=.	then p	10c3=0;							
		if p10c4=.	then p	10c4=0;							
	*	if p10d1=.	then p	10d1=0;			×				
		if p10d2=.	then p	10d2=0;						6	
,		if p10d3=.	then p	10d3=0;							
		if p10d4=.	then p	10d4=0;							
		if pl0e1=.	then p	10e1=0;	n X					~	*
		if p10e2=.	then p	10e2=0;							
		if p10e3=.	then p	10e3=0;							
		if p10e4=.	then p	10e4=0;							
		if pllal=.	then p	11a1=0;							
		if pl1a2=.	then p	11a2=0;							
		if p11b1=.	then p	11b1=0;							
		if p11b2=.	then p	11b2=0;							
		if pllc1=.	then p	011c1=0;							
		if p11c2=.	then p	11c2=0;							
		if plld1=.	then p	011d1=0;							
		if p11d2=.	then p	11d2=0;							
		if plle1=.	then p	011e1=0;							
		if plle2=.	then p	11e2=0;							
	e.	if pllfl=.	then p	011f1=0;			2				
		if p11f2=.	then p	011f2=0;							
		if pllgl=.	then p	11g1=0;							
		if p11g2=.	then p	11g2=0;							
		if pllh1=.	then p	11h1=0;							
		if p11h2=.	then p	011h2=0;							
			-								
	÷. •						1				

```
if pllil=. then pllil=0;
      if plli2=. then plli2=0;
      if p11j1=. then p11j1=0;
      if p11j2=. then p11j2=0;
      if pllk1=. then pllk1=0;
      if p11k2=. then p11k2=0;
      if p1111=. then p1111=0;
      if p1112=. then p1112=0;
      if pllml=. then pllml=0;
      if p11m2=. then p11m2=0;
      if p21a1=. then p21a1=0;
      if p21a2=. then p21a2=0;
      if p21a3=. then p21a3=0;
      if p21b1=. then p21b1=0;
      if p21b2=. then p21b2=0;
      if p21b3=. then p21b3=0;
      if p21c1=. then p21c1=0;
      if p21c2=. then p21c2=0;
      if p21c3=, then p21c3=0;
      if p21d1=. then p21d1=0;
      if p21d2=. then p21d2=0;
      if p21d3=. then p21d3=0;
      if p21e1=. then p21e1=0;
      if p21e2=. then p21e2=0;
      if p21e3=. then p21e3=0;
      if p23a=. then p23a=0;
      if p23b=. then p23b=0;
      if p23c=. then p23c=0;
      if p23d=. then p23d=0;
      if p23e=. then p23e=0;
      if p23f=. then p23f=0;
      if p23g=. then p23g=0;
      if p23h=. then p23h=0;
      if p23i=. then p23i=0;
      if p23j=. then p23j=0;
      if p23k=. then p23k=0;
      if p231=. then p231=0;
      if p23m=. then p23m=0;
      if p23n=. then p23n=0;
      if p23o=. then p23o=0;
      if p23p=. then p23p=0;
      if p48=. then p48=0;
  end;
run;
data Pastors;
  set Pastors;
  *estimate # of occastional visitors;
      if
              p01=01 then p01a=2;
      else if p01=02 then p01a=7;
      else if p01=03 then p01a=12;
      else if p01=04 then p01a=17;
      else if p01=05 then p01a=25;
      else if p01=06 then p01a=35;
```

else if p01=07 then p01a=45; else if p01=08 then p01a=60; else if p01=09 then p01a=85; else if p01=10 then p01a=113; else if p01=11 then p01a=137; else if p01=12 then p01a=162; else if p01=13 then p01a=187; else if p01=14 then p01a=225; else if p01=15 then p01a=275; else if p01=16 then p01a=350; p05z=p05*p03b; p05y=p05*p02b; p06ax=p06a/p02b; p04x=p04b/p03b; p06=sum(p06a,p06b,p06c,p06d); if p07a='' and p07b='' and p07c='' then p07=0; else p07=1; *Hypothesus A5: Where EMMC is gaining and losing members; p08a=sum(p08a1,p08a2,p08a3,p08a4); p08b=sum(p08b1,p08b2,p08b3,p08b4); p08c=sum(p08c1,p08c2,p08c3,p08c4); p10a=sum(p10a1,p10a2,p10a3,p10a4); p10b=sum(p10b1,p10b2,p10b3,p10b4); p10c=sum(p10c1,p10c2,p10c3,p10c4); p10d=sum(p10d1,p10d2,p10d3,p10d4); p10e=sum(p10e1,p10e2,p10e3,p10e4); p09a=sum(p09a1,p09a2); p09b=sum(p09b1,p09b2); p09c=sum(p09c1,p09c2); p09d=sum(p09d1,p09d2); p09e=sum(p09e1,p09e2); p09f=sum(p09f1,p09f2); p09g=sum(p09g1,p09g2); p09h=sum(p09h1,p09h2); p09i=sum(p09i1,p09i2); p09j=sum(p09j1,p09j2); p09k=sum(p09k1,p09k2); p091=sum(p0911,p0912); p09m=sum(p09m1,p09m2); p091=sum(p09a1,p09b1,p09c1,p09d1,p09e1,p09f1,p09g1,p09h1,p09i1,p 09j1, p09k1,p09l1,p09m1); p092=sum(p09a2,p09b2,p09c2,p09d2,p09e2,p09f2,p09g2,p09h2,p09i2,p 09j2, p09k2,p0912,p09m2); p09cg=sum(p09c,p09d,p09e,p09f,p09g); p09hj=sum(p09h,p09i,p09j); plla=sum(pllal,plla2); p11b=sum(p11b1,p11b2); pllc=sum(pllcl,pllc2); p11d=sum(p11d1,p11d2); plle=sum(plle1,plle2); p11f=sum(p11f1,p11f2);

```
pllg=sum(pllgl,pllg2);
     pllh=sum(pllh1,pllh2);
     plli=sum(plli1,plli2);
     p11j=sum(p11j1,p11j2);
     pl1k=sum(pl1k1,pl1k2);
     p111=sum(p1111,p1112);
     pl1m=sum(pl1m1,pl1m2);
     pll1=sum(plla1,pllb1,pllc1,plld1,plle1,pllf1,pllg1,pllh1,plli1,p
11j1,
            p11k1,p1111,p11m1);
     p112=sum(p11a2,p11b2,p11c2,p11d2,p11e2,p11f2,p11g2,p11h2,p11i2,p
11j2,
            p11k2,p1112,p11m2);
     pllcg=sum(pllc,plld,plle,pllf,pllg);
     pllhj=sum(pllh,plli,pllj);
      *totals members lost and gained;
     p08b=max(p08b,p091);p091=max(p08b,p091);*due to incomplete
survey results;
     p08c=max(p08c,p092);p092=max(p08c,p092);
     p10a=max(p10a,p111);p111=max(p10a,p111);
     p10b=max(p10b,p112);p112=max(p10b,p112);
     p08=sum(p08a,p08b,p08c);
     p09=sum(p091,p092);
     p10=sum(p10a,p10b,p10c,p10d,p10e);
     p11=sum(p111,p112);
     p17=min(p17a,p17b,p17c,p17d,p17e,p17f,p17g);
      if p19a1='Sunday' then p19=1;
      if p19b1='Sunday' then p19=2;
      if p19c1='Sunday' then p19=3;
      if p19a3 ne p19b3 and p19>1 then p19z=1; else p19z=0;
     p19aX=p02b/p19a5;
     p19bX=p02b/p19b5;
     p19cX=p02b/p19c5;
     p19X=p02b/max(p19a5,p19b5,p19c5);
     p21a=sum(p21a1,p21a2,p21a3);
     p21b=sum(p21b1,p21b2,p21b3);
     p21c=sum(p21c1,p21c2,p21c3);
     p21d=sum(p21d1,p21d2,p21d3);
     p21e=sum(p21e1,p21e2,p21e3);
     p23=sum(p23a,p23b,p23c,p23d,p23e,p23f,p23g,p23h,p23i,p23j,p23k,p
231,
            p23m,p23n,p23o,p23p);
      if p33a=1 or p33b=1 or p33c=1 then p33=1; else p33=0;
     p44=sum(p44a,p44b,p44c,p44d,p44e,p44f,p44g,p44h,p44i,p44j,p44k,p
441,p44m);
      if p56>0 then p55x=p55/p56;
      if p03b>0 then p55y=p55/p03b;
      if p02b>0 then p55z=p55/p02b;
     p21ax=p21a/p02b;
     p21bx=p21b/p02b;
     p21cx=p21c/p02b;
     p21dx=p21d/p02b;
     p21ex=p21e/p02b;
```

p56x=p56/p03b; p56y=p56/p02b; p55x=p55/p02b; if p56>0 then p55z=p55/p56; p23x=p23/p02b; p22x=p22/p02b; p22y=p22/p03b;

p37=0; if p37al ne . then p37=p37+1; if p37a2 ne . then p37=p37+1; if p37a3 ne . then p37=p37+1;

label p01a ='Lookup of p01-# non-weekly attenders that attend once a mth' p04x ='% Members at end of 2005 that are Non-Mennonite descendents' p05y ='# attendees regularly in worship last 3 mth' p05z ='# members regularly in worship last 3 mth' p06 ='# non-attending members' p07 ='Indicates church was involved in church plant in last 10 yrs' p08a ='# added to membership by baptism in 2005' p08b ='# added to membership by transfer from local church in 2005' p08c ='# added to membership by transfer from distant church 2005' 80q ='# added to membership in 2005' ='# deleted from membership by transfer to local p10a church 2005' ='# deleted from membership by transfer to distant p10b church 2005' ='# deleted from membership by death in 2005' p10c plod ='# deleted from membership by withdrawal in 2005' ploe ='# deleted from membership by dismissal in 2005' ='# deleted from membership in 2005! p10 p09a = 2005 Members transferred from other EMMC churches' ='2005 Members transferred from EMC churches' p09b ='2005 Members transferred from Old Colony churches' p09c ='2005 Members transferred from Reinlander churches' p09d p09e ='2005 Members transferred from Sommerfelder churches' p09f ='2005 Members transferred from Kleine Gemeinde churches' p09g ='2005 Members transferred from Bergthaler churches' ='2005 Members transferred from Mennonite Brethren p09h churches' ='2005 Members transferred from Brethren in Christ p09i churches' ='2005 Members transferred from General Conference p09j churches' p09k ='2005 Members transferred from other Mennonite churches' ='2005 Members transferred from non-Mennonite p091 Evangelical' p09m = 2005 Members transferred from non-specified churches'

		p091	='2005 Members transferred from other local
	churches'	2092	-12005 Members transferred from other distant
	churches'	p092	- 2003 Members Clansfelled flow other distant
		p09	='2005 Members transferred from other
	churches'		
		p09cg	='2005 Members transferred from tradional Mennonite'
	Mennonite	puanj	= 2005 Members transferred from non-tradional
	ricili ont co	p11a	='2005 Members transferred to other EMMC churches'
		p11b	='2005 Members transferred to EMC churches'
		p11c	='2005 Members transferred to Old Colony churches'
		plld	='2005 Members transferred to Reinlander churches'
		plle	='2005 Members transferred to Sommerfelder churches'
	aburahas	pllī	='2005 Members transferred to Kleine Gemeinde
	CHILL CHES	pllq	='2005 Members transferred to Bergthaler churches'
		p11h	='2005 Members transferred to Mennonite Brethren
	churches'	-	
		plli	='2005 Members transferred to Brethren in Christ
	churches'		-10005 Members transformed to Conous] Conference
	churches!	piij	= 2005 Members transferred to General conference
		p11k	='2005 Members transferred to other Mennonite
	churches'	-	
		p111	='2005 Members transferred to non-Mennonite
	Evangelical	,	
	churches	plim	='2005 Members transferred to non-specified
	chur ches	p111	='2005 Members transferred to other local churches'
		p112	='2005 Members transferred to other distant
	churches'		
		p11	='2005 Members transferred to other churches'
		plicg	='2005 Members transferred to pop-traditional Mennonite'
	Mennonite'	prinj	- 2005 Herbers transferred to non traditional
		p17	- = Church building used Much or Very Much by
	outside gro	up'	
		p19	='# of worship services'
20		p19ax	='Average % of capacity in 1st service pU2D/p19a5'
		p19bx	='Average % of capacity in 3rd service p02b/p1965'
		p19X	='Ave % capacity largest service
	p19X=p02b/m	ax(p19	15,p19b5,p19c5)'
		p19z	='Indicates that they have multiple cultural groups:
	1,0'	- 01 -	
		p21a	='# who in Sunday School'
		p_{210}	= "# who in Sunday School but not worship"
		p_{21c}	= # who in Small group or Bible study'
		p210	='# who in Worship but not Sunday school'
	×.	p23	='# in Bible College-fall 2005'
· ·		p33	='church planning plant in next 5 years (0,1)'
		p37	='# of NCD Surveys done'
	to 100011	p44	='% time spend in ministry (check if they add
	LO IUU%)'	D 55 v	='Donation per receipted giver'
		POOR	- Paradra Var Tapatheen Atiat
	*		

p55y ='Donation per member' p55z ='Donation per average attendance' p21ax ='% 2005 attendees in Sunday School' p21bx ='% 2005 attendees in SS but not worship' p21cx ='% 2005 attendees in Bible study' p21dx ='% 2005 attendees in Small group/Bible study' p21ex ='% 2005 attendees in Worship but not SS' p22x ='% 2005 attendees attended the annual meeting' p22y ='% 2005 members attended the annual meeting ' p23x ='% 2005 attendees in Bible Colleges in fall' p56x ='% of average attendees that are receipted givers' p56y ="% of members that are receipted givers' p55x ='donations per average attender p55/p02b' p55z ='total donations per recipted donor p55/p56'; run; data pastors; set pastors; p53bX=p53b/p51Exchng; p54aX=p54a/p51Exchng; p54bX=p54b/p51Exchng; p54cX=p54c/p51Exchng; if p51a>0 then p51eZ=p51e/p51a; if p51a>0 then p51fZ=p51f/p51a; if p55>0 then p53bZ=p53b/p55; if p55>0 then p54aZ=p54a/p55; label p53bX ='\$C spent on Physical relief in your community outside church' p54aX ='\$C budgeted for Local missionary outreach' p54bX ='\$C budgeted for Other mission organizations' ='\$C budgeted for Other EMMC and LIEAB churches! p54cX p51eZ ='Proportion of expense budget on non-staff training p51e/p51a' p51fZ ='Proportion of expense budget on staff trainingp51f/p51a' p53bZ ='Proportion of donations on community relief 53b/p55' p54aZ ='Proportion of donations on local outreach p54a/p55'; run; title4 'test new variable'; *proc freq data=pastors3; * table p37*p37a1*p37a2*p37a3 / list missing; run;

*Define leader survey summary variables; title3 'Define leader survey summary variables';

data Leaders2; set Leaders;

> *set missing variables to 0 where it implies such; if 107=. then 107=0; if 108a01=. then 108a01=0;

if	108b01=.	then	108b01=0;		
if	108c01=.	then	108c01=0;		
if	108d01=.	then	108d01=0;		
if	108e01=.	then	108e01=0;		
if	108a02=.	then	108a02=0;		
if	108b02=.	then	108b02=0;		
if	108c02=.	then	108c02=0;		
if	108d02=.	then	108d02=0;		
if	108e02=.	then	108e02=0;		
if	108a03=.	then	108a03=0;	*	
if	108b03=.	then	108b03=0;		
if	108c03=.	then	108c03=0;		
if	108d03=.	then	108d03=0;		
if	108e03=.	then	108e03=0;		
if	108a04=.	then	108a04=0;		
if	108b04=.	then	108b04=0;		
if	108c04=.	then	108c04=0;		
if	108d04=.	then	108d04=0:		
if	108e04=	then	108e04=0:		
if	108a05=	then	108a05=0:		
if	108b05=	then	108b05=0:		
if	108c05 =	then	108c05=0;		
if	108d05 =	then	108d05=0;		
if	108e05 =	then	108e05=0;		
if	108a06=	then	108a06=0;		
if	108b06=	then	108b06=0		
if	108c06=	then	108c06=0;		
if	108d06=	then	108406=0;		
if	108e06=	then	108e06=0:		
if	108a07 =	then	108a07=0;		
if	108b07=	then	108b07=0:		
if	108c07=.	then	108c07=0;		
if	108d07=.	then	108d07=0;		
if	108e07=.	then	108e07=0;		
if	108a08=.	then	108a08=0;	· ·	
if	108b08=.	then	108b08=0;	·. /	
if	108c08=.	then	108c08=0;		
if	108d08=.	then	108d08=0;		
if	108e08=.	then	108e08=0;	*	
if	108a09=.	then	108a09=0;		
if	108b09=.	then	108b09=0;		
if	108c09=.	then	108c09=0;		
if	108d09=.	then	108d09=0;		
if	108e09=.	then	108e09=0;		
if	108a10=.	then	108a10=0;	×	
if	108b10=.	then	108b10=0;		
if	108c10=.	then	108c10=0;		
if	108d10=.	then	108d10=0;		
if	108e10=.	then	108e10=0;		
if	108a11=.	then	108a11=0;		
if	108b11=.	then	108b11=0;		
if	108c11=.	then	108c11=0:		
if	108d11=.	then	108d11=0:		
if	108e11=.	then	108e11=0;		
if	108a12=.	then	108a12=0:		
if	108b12=.	then	108b12=0;		4
if	108c12=.	then	108c12=0;		

	1						
	if	108d12=.	then	108d12=0;			
	if	108e12=.	then	108e12=0;			
	if	108a13=.	then	108a13=0;			
	if	108b13=.	then	108b13=0;			
	if	108c13=,	then	108c13=0;			
	if	108d13=.	then	108d13=0;			
	if	108e13=.	then	108e13=0;			
	if	108a14=.	then	108a14=0:			
	if	108b14 = .	then	108b14=0:			
	i f	108c14 =	then	108014-0:			
	1 F	100014-	thor	100014-0,			
	4 4	108014	then	108014-0;			
	1 5	100014	then	100-15-0;			
	11	108a15=.	then	108a15=0;			
	11	108015=.	then	108015=0;			
	lÍ	108015=.	then	108c15=0;			
	it	108d15=.	then	108d15=0;			
	if	108e15=.	then	108e15=0;			
	if	108a16=.	then	108a16=0;			
	if	108b16=.	then	108b16=0;			
	if	108c16=.	then	108c16=0;			
	if	108d16=.	then	108d16=0;			
	if	108e16=.	then	108e16=0;			
	if	108a17=.	then	108a17=0;			
	if	108b17=.	then	108b17=0;			
	if	108c17=.	then	108c17=0:			
	if	108d17=	then	108d17=0:			
	if	108e17 =	then	108017=0:			
	if	108 - 18 -	thon	100019-0,			
	if	100a10	thon	100a10-0,			
	11	100D10 = .	then	100010=0;			
	11	108018=,	then	108018=0;			
	11	108018=.	then	108018=0;			
	lİ	108e18=.	then	108e18=0;			
	if	108a19=.	then	108a19=0;			4
	if	108b19=.	then	108b19=0;			
-	if	108c19=.	then	108c19=0;	. /		
	if	108d19=.	then	108d19=0;			
	if	108e19=.	then	108e19=0;			
	if	108a20=.	then	108a20=0;	· _		
	if	108b20=.	then	108b20=0;			
	if	108c20=,	then	108c20=0;			
	if	108d20=.	then	108d20=0;			
	if	108e20=.	then	108e20=0;	,		
	if	108a21=.	then	108a21=0;			
	if	108b21=.	then	108b21=0;			
	if	108c21=.	then	108c21=0:	2		
	if	108d21 =	then	108d21=0;			
	if	108e21 =	then	108e21=0		Ξ¥.	
	i f	108 = 22 =	thon	108-22-0.			
	i f	100a22	thon	100a22-0,			
	11	108022	then	108022-0;			
	11	108622=,	then	108622=0;			
	11	108022=.	then	108022=0;			
	lI	108e22=.	then	108e22=0;			*
	lf	108a23=.	then	108a23=0;			· .
	if	108b23=.	then	108b23=0;			
	if	108c23=,	then	108c23=0;			
	if	108d23=.	then	108d23=0;		-	
	if	108e23=.	then	108e23=0;			
							£

if	111a=.	then	111a=0;
if	111b=.	then	111b=0;
if	111c=.	then	111c=0;
if	111d=.	then	111d=0;
if	111e=.	then	l11e=0;
if	111f=.	then	111f=0;
if	111g=.	then	111g=0;
if	111h=.	then	111h=0;
if	111i=.	then	111i=0;
if	111j=.	then	111j=0;
if	111k=.	then	l11k=0;
if	1111=.	then	1111=0;
if	111m=.	then	111m=0;
if	111n=.	then	l11n=0;
if	111o=.	then	1110=0;
if	111p=.	then	111p=0;
if	111q=.	then	111q=0;
if	111r=.	then	111r=0;
if	111s=.	then	l11s=0;
if	111t=.	then	l11t=0;
if	111u=.	then	111u=0;
if	111v=.	then	l11v=0;
if	111w=.	then	111w=0;
if	144a=.	then	144a=0;
if	144b = .	then	144b=0:

data Leaders2;

set Leaders2;

*;

101Age=2005-101;

if	01	<=C	hurch	nId<=	=69	and	106=1	then	106h	ome=1;
		els	e if	01 <	<=Cł	nurch	nId<=6	9 the	n' 1061	home=0;
if	70	<=C	hurcl	nId<=	=79	and	106=3	then	106h	ome=1;
		els	e if	70 <	<=Ch	nurch	nId <= 7	9 the	n 106	home=0;
if	80	<=C	hurcl	nId<=	-89	and	106=4	then	106h	ome=1;
		els	e if	80 <	<=Cł	nurch	nId<=8	9 the	n 1061	home=0;
if	90	<=C	hurcl	nId<=	=99	and	106=2	then	106h	ome=1;
		els	e if	90 <	<=Cł	nurch	nId<=9	9 the	1061	home=0;
if	100	6=5	then	1061	nome	e=0;				
if	100	δ = .	then	1061	nome	e=.;		,		

*Christian Education;

108a=max(108a01,108a02,108a03,108a04,108a05,108a06,108a07,108a08,108a09,

108a10,108a11,108a12,108a13,108a15,108a16,108a17); 108b=max(108b01,108b02,108b03,108b04,108b05,108b06,108b07,108b08,108b09,

108b10,108b11,108b12,108b13,108b14,108b15,108b16,108b17); 108c=max(108c01,108c02,108c03,108c04,108c05,108c06,108c07,108c08,108c09,

108c10,108c11,108c12,108c13,108c14,108c15,108c16,108c17);

108d=max(108d01,108d02,108d03,108d04,108d05,108d06,108d07,108d08,108d09,

108d10,108d11,108d12,108d13,108d14,108d15,108d16,108d17); 108e=max(108e01,108e02,108e03,108e04,108e05,108e06,108e07,108e08,108e09,

108e10,108e11,108e12,108e13,108e14,108e15,108e16,108e17); if 108a=1 then 108=1; if 108b=1 then 108=2; if 108c=1 then 108=3; if 108d=1 then 108=4; if 108c=1 then 108=5; 10801=max(108a01,108b01,108c01,108d01,108e01); 10802=max(108a02,108b02,108c02,108d02,108e02); 10803=max(108a03,108b03,108c03,108d03,108e03); 10804=max(108a04,108b04,108c04,108d04,108e04); 10805=max(108a05,108b05,108c05,108d05,108e05); 10806=max(108a06,108b06,108c06,108d06,108e06); 10807=max(108a07,108b07,108c07,108d07,108e07); 10808=max(108a08,108b08,108c08,108d08,108e08,108a09,108b09,108c0

9,

108d09,108e09); 10810=max(108a10,108b10,108c10,108d10,108e10); 10811=max(108a11,108b11,108c11,108d11,108e11); 10812=max(108a12,108b12,108c12,108d12,108e12); 10813=max(108a13,108b13,108c13,108d13,108e13); 10814=max(108a14,108b14,108c14,108d14,108e14); 10815=max(108a15,108b15,108c15,108d15,108e15); 10816=max(108a16,108b16,108c16,108d16,108e16); 10817=max(108a17,108b17,108c17,108d17,108e17); 10818=max(108a18,108b18,108c18,108d18,108e18); 10819=max(108a20,108b20,108c20,108d20,108e20); 10821=max(108a21,108b21,108c21,108d21,108e21); 10822=max(108a22,108b22,108c22,108d22,108e22); 10823=max(108a23,108b23,108c23,108d23,108e23);

* Average multiple answers;

if 132a>5 then 132a=int(mean(int(132a/10),mod(132a,10))); if 132b>5 then 132b=int(mean(int(132b/10),mod(132b,10))); if 132c>5 then 132c=int(mean(int(132c/10),mod(132c,10))); if 132d>5 then 132d=int(mean(int(132d/10),mod(132d,10))); if 132e>5 then 132e=int(mean(int(132e/10),mod(132e,10))); if l32f>5 then l32f=int(mean(int(l32f/10),mod(l32f,10))); if 132g>5 then 132g=int(mean(int(132g/10),mod(132g,10))); if 132h>5 then 132h=int(mean(int(132h/10),mod(132h,10))); if 132i>5 then 132i=int(mean(int(132i/10),mod(132i,10))); if 133a>5 then 133a=int(mean(int(133a/10),mod(133a,10))); if 133b>5 then 133b=int(mean(int(133b/10),mod(133b,10))); if 133c>5 then 133c=int(mean(int(133c/10),mod(133c,10))); if 133d>5 then 133d=int(mean(int(133d/10),mod(133d,10))); if 133e>5 then 133e=int(mean(int(133e/10),mod(133e,10))); if 133f>5 then 133f=int(mean(int(133f/10),mod(133f,10))); if 133g>5 then 133g=int(mean(int(133g/10),mod(133g,10))); if 133h>5 then 133h=int(mean(int(133h/10),mod(133h,10))); if 133i>5 then 133i=int(mean(int(133i/10),mod(133i,10))); if 133j>5 then 133j=int(mean(int(133j/10),mod(133j,10)));

if 150a>5 then 150a=int(mean(int(150a/10),mod(150a,10))); if 150b>5 then 150b=int(mean(int(150b/10),mod(150b,10))); if 150c>5 then 150c=int(mean(int(150c/10),mod(150c,10))); if 150d>5 then 150d=int(mean(int(150d/10),mod(150d,10))); if 150e>5 then 150e=int(mean(int(150e/10),mod(150e,10))); if 150f>5 then 150f=int(mean(int(150f/10),mod(150f,10))); if 150g>5 then 150g=int(mean(int(150g/10),mod(150g,10))); if 150h>5 then 150h=int(mean(int(150h/10),mod(150h,10))); if 150i>5 then 150i=int(mean(int(150i/10),mod(150i,10))); if 150j>5 then 150j=int(mean(int(150j/10),mod(150j,10))); if 151a>5 then 151a=int(mean(int(151a/10),mod(151a,10))); if 151b>5 then 151b=int(mean(int(151b/10),mod(151b,10))); if 151c>5 then 151c=int(mean(int(151c/10),mod(151c,10))); if 151d>5 then 151d=int(mean(int(151d/10),mod(151d,10))); if 151e>5 then 151e=int(mean(int(151e/10),mod(151e,10))); if 151f>5 then 151f=int(mean(int(151f/10),mod(151f,10))); if 151g>5 then 151g=int(mean(int(151g/10),mod(151g,10))); if 151h>5 then 151h=int(mean(int(151h/10),mod(151h,10))); if 151i>5 then 151i=int(mean(int(151i/10),mod(151i,10))); if 151j>5 then 151j=int(mean(int(151j/10),mod(151j,10))); *Leader Opinions on Jobs and Activies in Christian Faith; 132=40-(132b+132c+132d+132e+132f+132g+132h+132i); 133=(133a+133b+133c+133d+133e+133f+133g+133h+133i+133j)-10; *Leader Opinions on Needing and Receiving Church Assistance; 150=50-(150a+150b+150c+150d+150e+150f+150g+150h+150i+150j); 151=50-(151a+151b+151c+151d+151e+151f+151g+151h+151i+151j); label ='Age at the end of 2005 - from 101' 101Age 106home ='Church in birth COUNTRY: 0-No, 1-Yes' 108 ='Highest level of Bible College education: 1,2,3,4,5' 108a ='Attended a Bible College (but did not earn a degree): 1,0' ='Earned a Diploma at a Bible College: 1,0' 108b ='Earned a Bachelors at a Bible College: 1,0' 108c 108d ='Earned a Masters at a Bible College: 1,0' 108e ='Earned a Doctorate at a Bible College: 1,0' 10801 ='At least Attended Steinbach Bible College: 1,0' 10802 ='At least Attended Aylmer Bible School: 1,0' 10803 ='At least Attended Bethany Bible Institute: 1,0' 10803 ='At least Attended Bethany Bible Institute: 1,0' 10804 ='At least Attended Steinrich Bible School: 1,0' 10805 ='At least Attended Briercrest Bible College: 1,0' 10806 ='At least Attended Providence College/ Seminary: 1,0' 10807 ='At least Attended Winnipeg College/ Seminary: 1,0' 10808 ='At least Attended Tyndale Bible College/Seminary: 1,0'

	10810 ='At	least Attended	Prairie Bible Institute: 1,0'
	10811 ='At 10812 ='At	least Attended least Attended	Emanuel Bible College: 1,0' Heritage Bible College: 1,0'
	10813 ='At	least Attended	Rio Grande Bible Institute: 1,0'
1 01	10814 ='At 10815 ='At	least Attended least Attended	Goshen College: 1,0' Canadian Mennonite University:
1,0	10816 ='At	least Attended	Evangelical Anabaptist Seminary:
1,0'	10817 ='At	least Attended	Other (than 1 to 16) School:
1	10818 ='At 10819 ='At	least Attended least Attended	Elim Bible Institute: 1,0' Nipawin Bible Institute:
1,0'	10820 ='At	least Attended	Winkler Bible Institute:
	10821 ='At 10822 ='At	least Attended least Attended	Capenwray: 1,0' Impact Studies Alabama:
1,0'	10823 ='At	least Attended	Millar Institute of the
BIDIE: 1,0,	132 133 150 151	='Job Compromi ='Oppose Part: ='Church Needs ='Church Rece:	ising faith:0-32' icipation in:0-40' s Assistance:0-40' ives Assistance:0-40';

* merge leaders data of Pastors to Pastors dataset; title3 'merge leaders data of Pastors to Pastors dataset'; *Response of Pastors in the Leader Questionnaire; title4 'Response of Pastors in the Leader Questionnaire';

run;

*save data; data sasdata.pastors2; set pastors2; run;

data sasdata.leaders2;
 set leaders2;
run;

* EMMC Growth Patterns; *Analysis; libname SasData 'C:\Shared Documents and Such\Education\McMaster School Thesis Project\Data\SASData'; options nodate pageno=1; options pageno=1 pagesize=52 linesize=90 date; title1 'Masters Project: EMMC Growth Data'; title2 'EMMC Pastors and Leaders Survey Data'; * Survey Response; title3 'Survey Response'; data ChurchResponse; set SasData.ChurchResponse; run; * Response Table by Church; title4 'Response Table by Church'; proc print data=ChurchResponse; var Region ChurchId NumPastors NumLeaders NumBlank NumReturned ResponseRate; format ResponseRate percent. ;*NumPastors missing. ; run; * Total Response Table Overall; title4 'Response Table Overall'; proc means data=ChurchResponse n nmiss sum; var NumPastors NumLeaders NumBlank NumReturned; format NumPastors missing.; run; * Region Response Table by Region; title4 'Response Table by Region'; %freqe (dataM=ChurchResponse,var1=NumPastors,var2=Region, formatM=%str(Region Region. NumPastors boolean.)); %medianp(dataM=ChurchResponse,varM=NumLeaders,GroupM=Region, formatM=%str(Region Region.)); %medianp(dataM=ChurchResponse,varM=NumBlank, GroupM=Region, formatM=%str(Region Region.)); %medianp(dataM=ChurchResponse,varM=NumReturned,GroupM=Region, formatM=%str(Region Region.)); %medianp(dataM=ChurchResponse,varM=ResponseRate,GroupM=Region, formatM=%str(Region Region.)); * Pastors Response over Time; title4 'Pastors Response over Time';

proc freq data=sasdata.pastorsE;

tables ReceivedD*Region / missing nocol norow nopercent; format Region region. ReceivedD weeku3.;

run;

```
* Leaders Response over Time;
title4 'Leaders Response over Time';
proc freq data=sasdata.leadersE;
  tables ReceivedD*Region / missing nocol norow nopercent;
  format Region region. ReceivedD weeku3.;
run;
* Calculated and Summary Variables;
*EMMC: Increase in attendance and membership;
title3 'EMMC: Increase in attendance and membership';
data EMMCannual;
  set sasdata.EMMCannual;
run;
proc export data=EMMCannual
 outfile="C:\Shared Documents and Such\Education\McMaster School\"
            Thesis Project\Manuscript\EMMCannual.xls"
      replace;
run;
title4 'Annual Attendance. Membership, and Number of Churches';
proc print data=EMMCannual;
run;
proc gplot data=EMMCannual;
  plot (Attendance Membership Churches) *Year;
run;
* Growth Rate Model;
title4 'Attendance model';
proc glm data=EMMCannual;
  model Attendance= Year;
  output out=Eout r=Residuals;
run;
quit;
title4 'Normal Q-Q Plot for Annual Change in Attendance';
proc univariate data=Eout noprint;
      qqplot Residuals / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run;
```

*EMMC: Increase in attendance and membership same as EMC; title3 'EMMC: Increase in attendance and membership same as EMC'; data emcregion;

set sasdata.emcregion;

run;

title4 'EMC 10-year EMC Regional and Overall Growth Rate (1991 to 2001)'; proc print data=emcregion; var region M1991 A1993 N1991 M2001 A2001 N2001 M9101 A9303 N9101; format M9101 A9303 N9101 5.2; run; data region; set sasdata.region; run; title4 'EMMC 10-year Regional and Overall Growth Rate (1991 to 2001)'; proc print data=region; var r M1991 A1991 N1991 M2001 A2001 N2001 M9101 A9101 N9101; format M9101 A9101 N9101 5.2 r region.; run; *Census Data: title3 'Census Data'; title4 'Census Data'; data census censusdiv censussubdiv; set SasData.census; if RegionLevel=1 then output censusdiv; if RegionLevel=2 then output censussubdiv; output census; run; *Census: Demographics of church neighbourhoods; title3 'Census: Demographics of church neighbourhoods'; data censussubdiv; set censussubdiv; if PRaceMenno=. then PRWhite=PRaceWhite; else PRWhite=PRaceWhite+PRaceMenno; if 70 le ChurchId le 99 then do; PMSing=(PMarComLaw+PMarSingle)/(1-PMarNo); PMMar=(PMarMarried+PMarSep)/(1-PMarNo); PMSep=(PMarSep)/(1-PMarNo); PMDiv=PMarDiv/(1-PMarNo); PMWid=PMarWid/(1-PMarNo); end; else do; PMSing=PMarComLaw+PMarSingle; PMMar=PMarMarried; PMSep=PMarSep; PMDiv=PMarDiv; PMWid=PMarWid; end; * Official Language; if 01 le ChurchId le 69 then PLangOff=PlangEng; *Canada; if 70 le ChurchId le 79 then PLangOff=PLangSp; *Mexico;

if 80 le ChurchId le 99 then PLangOff=PlangEng; *Belize, United States;

* Religion Christian;

PRelCh=sum(PRelCath, PRelOrth, PRelProtest, PRelAng, PRelBap, PRelMet

h,

PRelPent, PrelSA, PrelNaz, PRelMenno, PRelOthChr);

label

PRWhite ='% pop Race White (or Mennonite in Belize)'
PMSing ='% pop single (inc common-law) age 15+ (Can)
or age'
PMMar ='% pop married age 15+ (Can) or marriagible age'
PMSep ='% pop separated age 15+ (Can) or marriagible age'
PMDiv ='% pop divorce age 15+ (Can) or marriagible age'
PMWid ='% pop widowed age 15+ (Can) or marriagible age'
PLangOff='% pop. first learned Official Language'
PRelCh ='% pop any Christian (excluding Mormon, 7th
Day, JW)';

```
run;
```

```
data emmc;
   set SasData.emmc;
run;
```

```
data pastors2;
  set SasData.pastors2;
run;
```

```
data leaders2;
   set SasData.leaders2;
run;
```

proc sort data=censussubdiv; by ChurchId; run;

*title3 'EMMC: Attendance and membership records'; title3 'EMMC: Attendance and membership records';

*count # where survey > emmc, survey<emmc, the same;
data emmc3;</pre>

set emmc2; if p02a>A2004 then pA04=1; else if p02a<A2004 then pA04=-1; else if p02a=A2004 then pA04=0; if p02a=. or A2004=. then pA04=.; if p02b>A2005 then pA05=1; else if p02b<A2005 then pA05=-1; else if p02b=A2005 then pA05=0; if p02b=. or A2005=. then pA05=.; if p03a>M2004 then pM04=1; else if p03a<M2004 then pM04=-1; else if p03a=M2004 then pM04=0; if p03a=. or M2004=. then pM04=.; if p03b>M2005 then pM05=1; else if p03b<M2005 then pM05=-1; else if p03b=M2005 then pM05=0; if p03a=. or M2005=. then pM05=.; label pA04='2004 Att Survey/EMMC Records: lower(-1), same(0), higher(-1)' pA05='2005 Mem Survey/EMMC Records: lower(-1), same(0), higher(-1) * pM04='2004 Att Survey/EMMC Records: lower(-1), same(0), higher(-1) ' pM05='2005 Mem Survey/EMMC Records: lower(-1), same(0), higher(-1)'; run; proc freq data=emmc3; tables pA04 pA05 pM04 pM05 / ; *tables (pA04 pA05 pM04 pM05)*r / ; format r region.; run; title4 'Comparison of 2004 attendance from Survey/EMMC Records - both complete'; proc means data=emmc3 maxdec=2 fw=6 n missing mean median stddev; var A2004 p02a; where A2004 ne . and p02a ne .; run; title4 'Comparison of 2005 attendance from Survey/EMMC Records - both complete'; proc means data=emmc3 maxdec=2 fw=6 n missing mean median stddev; var A2005 p02b; where A2005 ne . and p02b ne .; run; title4 'Comparison of 2004 membership from Survey/EMMC Records - both complete'; proc means data=emmc3 maxdec=2 fw=6 n missing mean median stddev; var M2004 p03a; where M2004 ne . and p03a ne .; run; title4 'Comparison of 2005 membership from Survey/EMMC Records - both complete'; proc means data=emmc3 maxdec=2 fw=6 n missing mean median stddev; var M2005 p03b; where M2005 ne . and p03b ne .; run;

*EMMC: 5-year increase in attendance, membership, churches; title3 'EMMC: 5-year increase in attendance, membership, churches'; data emmc4; set emmc3; *retrieve missing (from EMMC records or Pastor Survey) attendance and membership data from other source; if M2004=. then M2004=p03a; if M2005=. then M2005=p03b; if A2004=. then A2004=p02a; if A2005=. then A2005=p02b; if p03a=. then p03a=M2004; if p03b=. then p03b=M2005; if p02a=. then p02a=A2004; if p02b=. then p02b=A2005; NPlants=0; if A2005D1>0 then NPlants=NPlants+1; if A2005D2>0 then NPlants=NPlants+1; if A2005D3>0 then NPlants=NPlants+1; if A2005D4>0 then NPlants=NPlants+1; A2005P=sum(A2(05D1,A2005D2,A2005D3,A2005D4); if A2005P=. then A2005P=0; if M2000 > 0 then M0005=(M2005-M2000)/M2000; else M0005=.; if A2000 > 0 then A0005=(A2005-A2000)/A2000; else A0005=.; if A2000 > 0 then AP0005=(A2005+A2005P-A2000)/A2000; else AP0005=.; *if G=. then G=99; *removed 2006Nov15; G=A0005; GP=AP0005; * f GP=. then GP=99; *removed 2006Nov15; Size=A2000; if Size=. then Size=0; label A2005P ='Attributed part of 2005 Church Plants (since 2000) Att' M0005 = 5-yr % gain Membership (2000-2005)' A0005 = 5-yr % gain Attendance (2000-2005)' AP0005 ='5-yr % gain Attendance inc plants (2000-2005)' G ='% Attendance gain 2000 to 2005' GP · ='% Attendance gain (inc plants) 2000-05' Size = EMMC Records Attendance 2000' NPlants ='EMMC Records - # plants church was involved in'; run; *EMMC: What is the 5-year growth of the EMMC?; title3'EMMC: What is the 5-year growth of the EMMC - not including defunct'; title4 '2000 and 20)5 EMMC Attendance and membership'; proc means data=emm c4 maxdec=1 fw=4 n missing sum; var A2000 A2005 M2000 M2005; run; proc means data=emm 24 maxdec=2 fw=5 n missing min mean median max;

var A0005 M0005; run;

*EMMC: Growth by Regional, Size Grouing, Growth Status; title3 'EMMC: Growth by Region'; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class R; var A2000; format R Region. Size sizef. GP Growth. ; run; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class R; var A2005; format R Region. Size sizef. GP Growth. ; run; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class R; var M2000; format R Region. Size sizef. GP Growth. ; run; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class R; var M2005; format R Region. Size sizef. GP Growth. ; run; title3 'EMMC: Growth by Size Grouping'; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class Size; var A2000; format R Region. Size sizef. GP Growth. ; run; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class Size; var A2005; format R Region. Size sizef. GP Growth. ; run; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class Size; var M2000; format R Region. Size sizef. GP Growth. ; run; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class Size; var M2005; format R Region. Size sizef. GP Growth. ; run; title3 'EMMC: Growth by Growth Status'; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class GP; var A2000; format R Region. Size sizef. GP Growth. ; run; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class GP; var A2005; format R Region. Size sizef. GP Growth. ; run; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class GP; var M2000; format R Region. Size sizef. GP Growth. ; run; proc means data=emmc4 maxdec=1 fw=4 n missing sum; class GP; var M2005; format R Region. Size sizef. GP Growth. ; run; *Combine data sources - Exclude disfunct churches; data Pastors3; merge emmc4 (in=e) censussubdiv (in=d drop=Region) Pastors2 (in=p);

by ChurchId;

if e;

if DisfunctB=0 then output Pastors3;
run;

```
*Response by Region, Size, Growth Status;
title3 'Pastors: Response by Region, Size, Growth Status';
proc sort data=emmc; by ChurchId; run;
data ChurchResponse2;
  merge ChurchResponse (in=c)
           pastors3 (in=e keep=ChurchId M0005 A0005 AP0005 G GP Size);
  by ChurchId;
  if c;
run;
title4 'Survey Response, and Size & Growth Status designations';
proc print data=ChurchResponse2;
  var Region ChurchId NumPastors NumLeaders NumBlank NumReturned
            ResponseRate G GP Size;
  format Region region. ResponseRate 5.2 G GP 6.2 Size size.;
run;
*EMMC Growth Status and Size groupings;
title3 'EMMC: Growth Status and Size groupings';
title4 'Survey Response, and Size & Growth Status designations';
proc freq data=pastors3;
  tables A2000 Size G GP R / list missing;
  *tables G*GP A2000*GP A2000*R GP*R / missing;
  format A0005 5.2 R region. G GP Growth. A2000 sizef.;
run;
data pastors3;
  set pastors3;
  if Size=. then Size=0;
  GPz=GP; if GP=. then GPz=99;
run;
proc sort data=pastors3; by ChurchId; run;
proc sort data=leaders2; by ChurchId; run;
data leaders3;
  merge leaders2 (in=1)
            pastors3 (in=p keep=ChurchId A2000 Size G GP GPz R p28a
p28b p28c);
  by ChurchId;
  if 1;
      if Pastor=1 then Role=1;
      else if Pastor ne 1 and l13Pastor=1 then Role=2;
      else if l13Board=1 or l13Council=1 or l14 in (1,2) then Role=3;
      else Role=4;
  label Role='Role 1-Sr.Pastor, 2-Pastor, 3-Board/Council, 4-other';
run;
```

```
title4 'Region, Size, and Growth Status groupings';
proc freq data=pastors3;
  tables Size*R GPz*R Size*GPz GPz*Size / missing chisg nopercent
nocol norow;
  format r Region. G GP GPz Growth. Size sizef. NPlants sign.;
run;
proc freq data=pastors3;
  tables NPlants*(R Size GPz) / missing chisq ;
  format r Region. G GP GPz Growth. Size sizef. NPlants sign.;
run;
%medianp(dataM=pastors3,varM=A2000,GroupM=R,formatM=%str(R Region.));
%medianp(dataM=pastors3,varM=A2000,GroupM=Size,formatM=%str(Size)
sizef. ));
%medianp(dataM=pastors3,varM=A2000,GroupM=GPz,formatM=%str(GPz
Growth. ));
%medianp(dataM=pastors3,varM=A2005,GroupM=R,formatM=%str(R Region.));
%medianp(dataM=pastors3,varM=A2005,GroupM=Size,formatM=%str(Size
sizef. ));
%medianp(dataM=pastors3,varM=A2005,GroupM=GPz,formatM=%str(GPz
Growth. ));
%medianp(dataM=pastors3,varM=AP0005,GroupM=R,formatM=%str(R Region.));
%medianp(dataM=pastors3,varM=AP0005,GroupM=Size,formatM=%str(Size)
sizef. ));
%medianp(dataM=pastors3,varM=AP0005,GroupM=GPz,formatM=%str(GPz
Growth. ));
proc sort data=pastors3;
  by descending R ;
run;
title4 'Linear Model of % Change in Attendance adjusted for region and
Size';
proc glm data=pastors3;
  class R Size;
  model GP= R Size / solution;
  format R region. Size sizef.;
  output out=GPout R=Residuals;
run;
quit;
title4 'Normal Q-Q Plot Linear Model of % Change in Att for region and
Size';
proc univariate data=gpout noprint;
  qqplot Residuals / normal cframe = ligr square vaxis=axis1;
  axis1 label=(a=90 r=0);
run;
```

*Census: Church Neighbourhood Demographics date; title3 'Census: Church Neighbourhood Demographics date'; title4 'Canadian Census Education level by Age groups'; proc means data=pastors3 maxdec=1 fw=4 n missing median mean min max; var PEdu2034NoHS PEdu2034HS PEdu2034TC PEdu2034CD PEdu2034UD PEdu3544NoHS PEdu3544HS PEdu3544TC PEdu3544CD PEdu3544UD PEdu4564NoHS PEdu4564HS PEdu4564TC PEdu4564CD PEdu4564UD; where ChurchId le 69; run; title4 'Non-Canadian Census Education level by Age groups'; proc means data=pastors3 maxdec=1 fw=4 n missing median mean min max; var PEduNoHS PEduHS PEduTC PEduCD PEduUD; where ChurchId > '69; run; title4 'Census Education demographics'; proc means data=pastors3 maxdec=3 fw=5 n missing median mean min max; var PEduUD PMalePer PAgeMed PLangGer PlangEng PLangSp PLangOff PForeignBorn PRelCh PRWhite PMMar ; run; *Census Demographics;

%medianp(dataM=pastors3,varM=PEduUD,GroupM=R,formatM=%str(R Region. PEduUD 5.2)); %medianp(dataM=pastors3,varM=PEdu2034UD,GroupM=R,formatM=%str(R Region. PEdu2034UD 5.2)); %medianp(dataM=pastors3,varM=PEdu3544UD,GroupM=R,formatM=%str(R Region. PEdu3544UD 5.2)); %medianp(dataM=pastors3,varM=PEdu4564UD,GroupM=R,formatM=%str(R Region. PEdu4564UD 5.2));

title3 'Census Demographics: Education';

%medianp(dataM=pastors3,varM=PEduUD,GroupM=Size,formatM=%str(Size sizef. PEduUD 5.2)); %medianp(dataM=pastors3,varM=PEdu2034UD,GroupM=Size,formatM=%str(Size sizef. PEdu2034UD 5.2)); %medianp(dataM=pastors3,varM=PEdu3544UD,GroupM=Size,formatM=%str(Size sizef. PEdu3544UD 5.2)); %medianp(dataM=pastors3,varM=PEdu4564UD,GroupM=Size,formatM=%str(Size sizef. PEdu4564UD 5.2));

%medianp(dataM=pastors3,varM=PEduUD,GroupM=GP,formatM=%str(GP Growth. PEduUD 5.2)); %medianp(dataM=pastors3,varM=PEdu2034UD,GroupM=GP,formatM=%str(GP Growth. PEdu2034UD 5.2)); %medianp(dataM=pastors3,varM=PEdu3544UD,GroupM=GP,formatM=%str(GP Growth. PEdu3544UD 5.2)); %medianp(dataM=pastors3,varM=PEdu4564UD,GroupM=GP,formatM=%str(GP Growth. PEdu4564UD 5.2));

*Other census demographics; title3 'Census Demographics: Gender - male'; %medianp(dataM=pastors3,varM=PMalePer,GroupM=R,formatM=%str(R Region. PMalePer 5.3)); %medianp(dataM=pastors3,varM=PMalePer,GroupM=Size,formatM=%str(Size sizef. PMalePer 5.2)); %medianp(dataM=pastors3,varM=PMalePer,GroupM=GP,formatM=%str(GP Growth. PMalePer 5.2));

title3 'Census Demographics: Age (median)'; %medianp(dataM=pastors3,varM=PAgeMed,GroupM=R,formatM=%str(R Region. PAgeMed 5.2)); %medianp(dataM=pastors3,varM=PAgeMed,GroupM=Size,formatM=%str(Size sizef. PAgeMed 5.2)); %medianp(dataM=pastors3,varM=PAgeMed,GroupM=GP,formatM=%str(GP Growth. PAgeMed 5.2));

title3 'Census Demographics: Language - official'; %medianp(dataM=pastors3,varM=PLangOff,GroupM=R,formatM=%str(R Region. PLangGer 5.2));

title3 'Census Demographics: Foreign Born';
%medianp(dataM=pastors3,varM=PForeignBorn,GroupM=R,formatM=%str(R
Region. PForeignBorn 5.2));

title3 'Census Demographics: Race'; %medianp(dataM=pastors3,varM=PRWhite,GroupM=R,formatM=%str(R Region. PRWhite 5.2)); %medianp(dataM=pastors3,varM=PRWhite,GroupM=Size,formatM=%str(Size sizef. PRWhite 5.2)); %medianp(dataM=pastors3,varM=PRWhite,GroupM=GP,formatM=%str(GP Growth. PRWhite 5.2));

title3 'Census Demographics: Marital Status'; %medianp(dataM=pastors3,varM=PMMar,GroupM=R,formatM=%str(R Region. PMMar 5.2)); %medianp(dataM=pastors3,varM=PMMar,GroupM=Size,formatM=%str(Size sizef. PMMar 5.2)); %medianp(dataM=pastors3,varM=PMMar,GroupM=GP,formatM=%str(GP Growth. PMMar 5.2));

*Census faith;

title3 'Census Demographics: Religion Christian'; %medianp(dataM=pastors3,varM=PRelCh,GroupM=R,formatM=%str(R Region. PRelCh 5.2)); %medianp(dataM=pastors3,varM=PRelCh,GroupM=Size,formatM=%str(Size sizef. PRelCh 5.2)); %medianp(dataM=pastors3,varM=PRelCh,GroupM=GP,formatM=%str(GP Growth. PRelCh 5.2));

*Census: Growth Explained by Census Demographics of Church Neighbourhoods; title3 'Census: Growth Explained by Demographics of Church Neighbourhoods';

```
proc glm data=pastors3;
  model GP=PAgeMed / solution;
run;
quit;
proc glm data=pastors3;
  model GP=PMalePer / solution;
```

```
run;
quit;
proc glm data=pastors3;
  model GP=PMMar / solution;
run;
quit;
proc glm.data=pastors3;
  model GP=PLangOff / solution;
run;
quit;
proc glm data=pastors3;
  model GP=PRWhite/ solution;
run;
quit;
proc glm data=pastors3;
  model GP=PForeignBorn / solution;
run;
quit;
proc glm data=pastors3;
  model GP=PRelCh / solution;
run;
quit;
proc glm data=pastors3;
  model GP=PMalePer PAgeMed PLangOff PRWhite PForeignBorn PMMar PRelCh
/ solution;
run;
quit;
proc glm data=pastors3;
  model GP=PMalePer PAgeMed PLangOff PRWhite PForeignBorn PMMar PRelCh
/ solution;
  where ChurchId<70;
run;
quit;
*Pastors;
*Demographic characteristics of Pastors (leaders questionnaire);
title3 'Pastors: Demographic characteristics of Pastors (leaders
questionnaire)';
%freqe (dataM=leaders3,var1=Role,var2=LeaderId,formatM=%str(LeaderId)
sign. Role Role.), where M=%str(PastorQ=1));
%medianp(dataM=leaders3,varM=101Age,GroupM=LeaderId,formatM=%str(Leade
rId sign.), where M=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=102,var2=LeaderId,formatM=%str(LeaderId)
sign. l02 sex.), where M=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=103,var2=LeaderId,formatM=%str(LeaderId)
sign. 103 1032f.), where M=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=104,var2=LeaderId,formatM=%str(LeaderId)
sign. 104 l04PD.), where M=%str(PastorQ=1));
```

```
%freqe (dataM=leaders3,var1=105,var2=LeaderId,formatM=%str(LeaderId)
sign. 105 l05menno.), where M=%str(PastorQ=1));
%freqe
(dataM=leaders3,var1=106home,var2=LeaderId,formatM=%str(LeaderId sign.
106home boolean.),whereM=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=107,var2=LeaderId,formatM=%str(LeaderId)
sign. 107 l07un.), where M=%str(PastorQ=1));
*Pastors: Demographic characteristics of Pastors (leaders
questionnaire);
title3 'Pastors: Demographic characteristics of Pastors (leaders
questionnaire)';
*...,whereM=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=Role,var2=R,formatM=%str(R Region. Role
Role.),whereM=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=Role,var2=Size,formatM=%str(Size sizef.
Role Role.), where M=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=Role,var2=GPz,formatM=%str(GPz Growth.
Role Role.), where M=%str(PastorQ=1));
%medianp(dataM=leaders3,varM=101Age,GroupM=LeaderId,formatM=%str(Leade
rId Sign.),whereM=%str(PastorQ=1));
%medianp(dataM=leaders3, varM=101Age, GroupM=R, formatM=%str(R
Region.),whereM=%str(PastorQ=1));
%medianp(dataM=leaders3,varM=101Age,GroupM=Size,formatM=%str(Size)
sizef. ),whereM=%str(PastorQ=1));
%medianp(dataM=leaders3,varM=101Age,GroupM=GPz,formatM=%str(GPz
Growth. ), where M=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=102,var2=R,formatM=%str(R Region. 102)
sex.),whereM=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=102,var2=Size,formatM=%str(Size sizef.
102 sex.),whereM=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=102,var2=GPz,formatM=%str(GPz Growth.
102 sex.), where M=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=103,var2=R,formatM=%str(R Region. 103)
1032f.),whereM=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=103,var2=Size,formatM=%str(Size sizef.
103 1032f.), where M=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=103,var2=GPz,formatM=%str(GPz Growth. 103
1032f.), where M=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=104,var2=R,formatM=%str(R Region. 104
104PD.), where M=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=104,var2=Size,formatM=%str(Size sizef.
104 l04PD.), where M=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=104,var2=GPz,formatM=%str(GPz Growth. 104
l04PD.),whereM=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=105,var2=R,formatM=%str(R Region. 105)
105menno.),whereM=%str(PastorQ=1));
%freqe (dataM=leaders3,var1=105,var2=Size,formatM=%str(Size sizef.
105 l05menno.), where M=%str(PastorQ=1));
```

%freqe (dataM=leaders3,var1=105,var2=GPz,formatM=%str(GPz Growth. 105 l05menno.), whereM=%str(PastorQ=1));

%freqe (dataM=leaders3,var1=106home,var2=R,formatM=%str(R Region. 106home boolean.), where M=%str(PastorQ=1)); %freqe (dataM=leaders3,var1=106home,var2=Size,formatM=%str(Size sizef. 106home boolean.), where M=%str(PastorQ=1)); %freqe (dataM=leaders3,var1=106home,var2=GPz,formatM=%str(GPz Growth. 106home boolean.), where M=%str(PastorQ=1)); %freqe (dataM=leaders3,var1=107,var2=R,formatM=%str(R Region. 107 l07un.), whereM=%str(PastorQ=1)); %freqe (dataM=leaders3,var1=107,var2=Size,formatM=%str(Size sizef.

107 107un.), where M=%str(PastorQ=1)); %freqe (dataM=leaders3,var1=107,var2=GPz,formatM=%str(GPz Growth. 107 107un.), where M=%str(PastorO=1));

*Pastors: Where is the EMMC gaining and losing members; title3'Pastors: Where is the EMMC gaining and losing members';

title4 'Total Memebers gained and lost by source';

proc means data=pastors3 maxdec=0 fw=4 n missing sum; p08 p10 p08a p09 p08b p08c p11 p10a p10b var p09a p11a p09b p11b p09cg p11cg p09hj p11hj M2004 M2005; where EnterId ne .; run;

*Pastors: Church Growth Initiatives; title3 'Pastors: Church Growth Initiatives';

%freqe (dataM=pastors3,var1=NPlants,var2=R,formatM=%str(R Region. NPlants sign.)); (dataM=pastors3, var1=NPlants, var2=Size, formatM=%str(Size sizef. %frege NPlants sign:)); %freqe (dataM=pastors3, var1=NPlants, var2=GPz, formatM=%str(GPz Growth. NPlants sign.));

%freqe (dataM=pastors3,var1=p34, var2=R,formatM=%str(R Region. p34) p34f.)); %freqe (dataM=pastors3,var1=p34, p34 p34f.)); %freqe (dataM=pastors3,var1=p34, var2=GPz,formatM=%str(GPz Growth. p34 p34f.));

yn.)); %freqe p36 yn.));

var2=Size, formatM=%str(Size sizef.

%freqe (dataM=pastors3, var1=p36, var2=R, formatM=%str(R Region. p36) (dataM=pastors3, var1=p36, var2=Size, formatM=%str(Size sizef.

%freqe (dataM=pastors3,var1=p36, p36 yr..)); %freqe (dataM=pastors3,var1=p19, p19f.)); %freqe (dataM=pastors3,var1=p19, p19 p19f.)); %freqe (dataM=pastors3,var1=p19, p19 p19f.)); %freqe (dataM=pastors3,var1=p19z, p19z boolean.)); %freqe (dataM=pastors3, var1=p19z, sizef. p19z boolean.)); %freqe (dataM=pastors3, var1=p19z, p19z boolean.)); %freqe (dataM=pastors3,var1=p19z, p19z boolean.)); %freqe (dataM=pastors3, var1=p51fz, p51fz sign.)); %freqe (dataM=pastors3, var1=p51fz, sizef. p51fz sign.)); %freqe (dataM=pastors3,var1=p51fz, Growth. p51fz sign.)); %freqe (dataM=pastors3, var1=p51ez, p51ez sign.)); %freqe (dataM=pastors3,var1=p51ez, sizef. p5lez sign.)); %freqe (dataM=pastors3,var1=p51ez, var2=GPz, formatM=%str(GPz) Growth. p51ez sign.)); %freqe (dataM=pastors3, var1=p53bz, p53bz sign.)); %freqe (dataM=pastors3,var1=p53bz, sizef. p53bz sign.)); %freqe (dataM=pastors3,var1=p53bz, Growth. p53bz sign.)); % freqe (dataM=pastors3, var1=p54az, p54az sign.)); . %freqe (dataM=pastors3, var1=p54az, sizef. p54az sign.)); %freqe (dataM=pastors3,var1=p54az, Growth. p54az sign.)); title3 'Pastors: Church Initiatives Models'; proc glm data=pastors3; class NPlants; model GP= NPlants / solution; format NPlants sign. p34 p34f. p36 yn. p19 p19f.; run; quit; proc glm data=pastors3; class p34; model GP= p34 / solution;

var2=GPz, formatM=%str(GPz Growth.

var2=R, formatM=%str(R Region. p19 var2=Size,formatM=%str(Size sizef. var2=GPz,formatM=%str(GPz Growth.

var2=R, formatM=%str(R Region. var2=Size, formatM=%str(Size var2=GPz, formatM=%str(GPz Growth. var2=p19, formatM=%str(p19 p19f.

var2=R,formatM=%str(R Region.

var2=Size,formatM=%str(Size

var2=GPz, formatM=%str(GPz

var2=R, formatM=%str(R Region. var2=Size,formatM=%str(Size

var2=R, formatM=%str(R Region. var2=Size,formatM=%str(Size var2=GPz, formatM=%str(GPz

var2=R, formatM=%str(R Region. var2=Size, formatM=%str(Size var2=GPz, formatM=%str(GPz

```
format p34 p34f. p36 yn. p19 p19f.;
run;
quit;
proc glm data=pastors3;
  class p36;
  model GP= p36 / solution;
  format p34 p34f. p36 yn. p19 p19f. p51fz p51ez p53bz p54az sign.;
run;
quit;
proc glm data=pastors3;
  class p19;
  model GP= p19 / solution;
  format p34 p34f. p36 yn. p19 p19f. p51fz p51ez p53bz p54az sign.;
run;
quit;
proc glm data=pastors3;
  class p51fz;
  model GP= p51fz / solution;
  format p34 p34f. p36 yn. p19 p19f. p51fz p51ez p53bz p54az sign.;
run;
quit;
proc glm data=pastors3;
  class p51ez;
  model GP= p51ez / solution;
  format p34 p34f. p36 yn. p19 p19f. p51fz p51ez p53bz p54az sign.;
run;
quit;
proc glm data=pastors3;
  class p53bz;
  model GP= p53bz / solution;
  format p34 p34f. p36 yn. p19 p19f. p51fz p51ez p53bz p54az sign.;
run;
quit;
proc glm data=pastors3;
  class p54az;
  model GP= p54az / solution;
  format p34 p34f. p36 yn. p19 p19f. p51fz p51ez p53bz p54az sign.;
run;
quit;
*Pastors: Determine the participation in church life;
title3 'Pastors: Determine the participation in church life';
*Participation; *by groupings;
'title4 'participation in church life';
* by attendees;
*...,whereM=%str(p21a ne .));
%medianp(dataM=pastors3,varM=p02b,GroupM=ChurchId,formatM=%str(ChurchI
d sign.), where M=%str(p21a ne .));
%medianp(dataM=pastors3,varM=p21a,GroupM=ChurchId,formatM=%str(ChurchI
d sign.), where M=%str(p21a ne .));
%medianp(dataM=pastors3,varM=p02b,GroupM=R,formatM=%str(R
Region.), where M=%str(p21a ne .));
%medianp(dataM=pastors3,varM=p21a,GroupM=R,formatM=%str(R)
Region.), where M=%str(p21a ne .));
```

%medianp(dataM=pastors3,varM=p02b,GroupM=Size,formatM=%str(Size sizef.), where M=%str(p21a ne .)); %medianp(dataM=pastors3,varM=p21a,GroupM=Size,formatM=%str(Size) sizef.),whereM=%str(p21a ne .)); %medianp(dataM=pastors3,varM=p02b,GroupM=GPz,formatM=%str(GPz Growth.), where M=%str(p21a ne .)); %**medianp**(dataM=pastors3,varM=p21a,GroupM=GPz,formatM=%str(GPz Growth.), where M=%str(p21a ne .)); *...,whereM=%str(p21c ne .)); %**medianp**(dataM=pastors3,varM=p02b,GroupM=ChurchId,formatM=%str(ChurchI d siqn.), where M=%str(p21c ne .)); %medianp(dataM=pastors3,varM=p21c,GroupM=ChurchId,formatM=%str(ChurchI d sign.),whereM=%str(p21c ne .)); *...,whereM=%str(p22 ne .)); %medianp(dataM=pastors3,varM=p02b,GroupM=ChurchId,formatM=%str(ChurchI d sign.),whereM=%str(p22 ne .)); %medianp(dataM=pastors3,varM=p22, GroupM=ChurchId,formatM=%str(ChurchId sign.),whereM=%str(p22 ne .)); %medianp(dataM=pastors3,varM=p02b,GroupM=R,formatM=%str(R) Region.), where M=%str(p22 ne .)); %medianp(dataM=pastors3,varM=p22, GroupM=R,formatM=%str(R Region.),whereM=%str(p22 ne .)); %medianp(dataM=pastors3,varM=p02b,GroupM=Size,formatM=%str(Size) sizef.),whereM=%str(p22 ne .)); %medianp(dataM=pastors3,varM=p22, GroupM=Size,formatM=%str(Size) sizef.),whereM=%str(p22 ne .)); %medianp(dataM=pastors3,varM=p02b,GroupM=GPz,formatM=%str(GPz Growth.), where M=%str(p22 ne .)); %medianp(dataM=pastors3,varM=p22, GroupM=GPz,formatM=%str(GPz Growth.), where M=%str(p22 ne .)); *...whereM=%str(p56 ne .)); %medianp(dataM=pastors3,varM=p02b,GroupM=ChurchId,formatM=%str(ChurchI d sign.), where M=%str(p56 ne .)); %medianp(dataM=pastors3,varM=p56, GroupM=ChurchId,formatM=%str(ChurchId sign.),whereM=%str(p56 ne .)); proc glm data=pastors3; model GP=p21ax / solution; run; quit; proc glm data=pastors3; model GP=p21cx/ solution; run; quit; proc glm data=pastors3; model GP=p22x / solution; run; quit; proc glm data=pastors3; model GP=p56x / solution; run; quit;

*Pastors: Resources & Facilities; title3 'Pastors: Resources & Facilities'; %freqe (dataM=pastors3,var1=p16, var2=R,formatM=%str(R Region. p16 p162f.)); %freqe (dataM=pastors3,var1=p19x,var2=R,formatM=%str(R Region. p19x p19X2f.)); %freqe (dataM=pastors3,var1=p57, var2=R,formatM=%str(R Region. p57 sign.)); %freqe (dataM=pastors3,var1=p58, var2=R,formatM=%str(R Region. p58) sign.)); proc glm data=pastors3; class p16; model GP=p16 / solution; format p16 p162f. p19x p19X2f. p57 sign. p58 sign.; run; quit; proc glm data=pastors3; class p19X; model GP=p19X / solution; format p16 p162f. p19x p19X2f. p57 sign. p58 sign.; run; quit; proc glm data=pastors3; class p57; model GP=p57 / solution; format p16 p162f. p19x p19X2f. p57 sign. p58 sign.; run; quit; proc glm data=pastors3; class p58; model GP=p58 / solution; format p16 p162f. p19x p19X2f. p55 p57 sign. p58 sign.; run; quit;

*Pastors: Organizational Structure; title3 'Pastors: Organizational Structure';

*...,whereM=%str(EnterId ne .)); %freqe (dataM=pastors3,var1=p27, var2=R,formatM=%str(R Region. p27 p27f.),whereM=%str(EnterId ne .)); %freqe (dataM=pastors3,var1=p29, var2=R,formatM=%str(R Region. p29 yn.),whereM=%str(EnterId ne .)); %freqe (dataM=pastors3,var1=p25a,var2=R,formatM=%str(R Region. p25a p25board.),whereM=%str(EnterId ne .)); %freqe (dataM=pastors3,var1=p25b,var2=R,formatM=%str(R Region. p25b p25member.),whereM=%str(EnterId ne .)); %freqe (dataM=pastors3,var1=p25b,var2=R,formatM=%str(R Region. p25b p25member.),whereM=%str(EnterId ne .)); %freqe (dataM=pastors3,var1=p25e,var2=R,formatM=%str(R Region. p25e p25pastor.),whereM=%str(EnterId ne .));

```
title4 'Univariate Models';
proc glm data=pastors3;
  class p27;
  model GP= p27 / solution;
  format p25a p25board. p25b p25member. p25c p25team. p25e p25pastor.
            p27 p27f. p29 yn.;
run;
quit;
proc glm data=pastors3;
  class p29;
  model GP= p29 / solution;
  format p25a p25board. p25b p25member. p25c p25team. p25e p25pastor.
            p27 p27f. p29 yn.;
run;
quit;
proc glm data=pastors3;
  class p25a;
  model GP= p25a / solution;
  format p25a p25board. p25b p25member. p25c p25team. p25e p25pastor.
            p27 p27f. p29 yn.;
run;
quit;
proc glm data=pastors3;
  class p25b;
  model GP= p25b / solution;
  format p25a p25board. p25b p25member. p25c p25team. p25e p25pastor.
            p27 p27f. p29 yn.;
run;
quit;
proc glm data=pastors3;
  class p25e;
  model GP= p25e / solution;
  format p25a p25board. p25b p25member. p25c p25team. p25e p25pastor.
            p27 p27f. p29 yn.;
run;
quit;
*Pastors: Multivariate Church Level Model;
title3 'Pastors: Multivariate Church Level Model';
proc glm data=pastors3;
  class p57;
  model GP=p56x p57 / solution;
  format p16 p162f. p19x p19X2f. p57 sign. p58 sign.;
  output out=pout r=Res;
run;
quit;
title4 'Normal Q-Q Plot for Church Level covariates';
proc univariate data=pout noprint;
      qqplot Res / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run;
```
```
proc glm data=pastors3;
    class R Size p57;
    model GP= p56x p57 R Size / solution;
    format p16 p162f. p19x p19X2f. p57 sign. p58 sign. R region2f. Size
    sizef.;
    output out=pout2 r=Residuals;
run;
quit;
title4 'Normal Q-Q Plot Linear Model of % Increase in Att by Church
```

Covariates'; proc univariate data=pout2 noprint;

qqplot Residuals / normal cframe = ligr square vaxis=axis1; axis1 label=(a=90 r=0);

run;

```
*Leaders: Demograpics of church leaders;
title3 'Leaders: Demograpics of church leaders';
```

```
*Leaders: Demographic characteristics of Leaders (leaders
questionnaire);
title3 'Leaders: Demographic characteristics of Leaders (leaders
questionnaire)';
```

```
* freqe (dataM=leaders3, var1=Role, var2=LeaderId, formatM=%str(LeaderId)
sign. Role Role.));
%medianp(dataM=leaders3,varM=101Age,GroupM=LeaderId,formatM=%str(Leade
rId sign.));
%freqe (dataM=leaders3,var1=102,var2=LeaderId,formatM=%str(LeaderId)
sign. 102 sex.));
%freqe (dataM=leaders3,var1=103,var2=LeaderId,formatM=%str(LeaderId)
sign. 103 1032f.));
%freqe (dataM=leaders3,var1=104,var2=LeaderId,formatM=%str(LeaderId)
sign. 104 104PD.));
%freqe (dataM=leaders3,var1=105,var2=LeaderId,formatM=%str(LeaderId)
sign. 105 105menno.));
%freqe
(dataM=leaders3, var1=106home, var2=LeaderId, formatM=%str(LeaderId sign.
106home boolean.));
%freqe (dataM=leaders3,var1=107,var2=LeaderId,formatM=%str(LeaderId)
sign. 107 107un.));
```

*Leaders: Demographic characteristics of Leaders (leaders questionnaire);

title3 'Leaders: Demographic characteristics of Leaders (leaders questionnaire)'; %freqe (dataM=leaders3,var1=Role,var2=R,formatM=%str(R Region. Role Role.)); %freqe (dataM=leaders3,var1=Role,var2=Size,formatM=%str(Size sizef. Role Role.)); %freqe (dataM=leaders3,var1=Role,var2=GPz,formatM=%str(GPz Growth. Role Role.)); %medianp(dataM=leaders3,varM=101Age,GroupM=LeaderId,formatM=%str(Leade rId Sign.)); %medianp(dataM=leaders3,varM=101Age,GroupM=R,formatM=%str(R Region.)); %medianp(dataM=leaders3,varM=101Age,GroupM=Size,formatM=%str(Size) sizef.)); %medianp(dataM=leaders3,varM=101Age,GroupM=GPz,formatM=%str(GPz Growth.)); %freqe (dataM=leaders3, var1=102, var2=R, formatM=%str(R Region. 102 sex.)); %freqe (dataM=leaders3,var1=102,var2=Size,formatM=%str(Size sizef. 102 sex.)); %freqe (dataM=leaders3,var1=102,var2=GPz,formatM=%str(GPz Growth. 102 sex.)); %freqe (dataM=leaders3,var1=103,var2=R,formatM=%str(R Region. 103) 1032f.)); %freqe (dataM=leaders3,var1=103,var2=Size,formatM=%str(Size sizef. 103 1032f.)); %freqe (dataM=leaders3,var1=103,var2=GPz,formatM=%str(GPz Growth. 103 1032f.)); %freqe (dataM=leaders3,var1=104,var2=R,formatM=%str(R Region. 104 104PD.)); %freqe (dataM=leaders3,var1=104,var2=Size,formatM=%str(Size sizef. 104 104PD.)); %freqe (dataM=leaders3,var1=104,var2=GPz,formatM=%str(GPz Growth. 104 104PD.)); %freqe (dataM=leaders3,var1=105,var2=R,formatM=%str(R Region. 105) 105menno.)); %freqe (dataM=leaders3,var1=105,var2=Size,formatM=%str(Size sizef. 105 105menno.)); (dataM=leaders3,var1=105,var2=GPz,formatM=%str(GPz Growth. %frege 105 105menno.)); %freqe (dataM=leaders3,var1=106home,var2=R,formatM=%str(R Region. 106home boolean.)); (dataM=leaders3,var1=106home,var2=Size,formatM=%str(Size sizef. %frege 106home boolean.)); %freqe (dataM=leaders3,var1=106home,var2=GPz,formatM=%str(GPz Growth. 106home boolean.)); %freqe (dataM=leaders3,var1=107,var2=R,formatM=%str(R Region. 107 107un.)); %freqe (dataM=leaders3,var1=107,var2=Size,formatM=%str(Size sizef.

107 107un.));

;

```
%freqe (dataM=leaders3,var1=107,var2=GPz,formatM=%str(GPz Growth.
107 107un.));
* Leaders: Leaders level outcomes for models;
title3 'Leaders: Leaders level outcomes for models';
symbol v=plus;
data leaders3;
  set leaders3;
  log132=log(132+1);
            132
                        ='Job Compromising faith:0-32'
                        ='Christian Participation in:0-40'
            133
                        ='Church Needs Assistance:0-40'
            150
            151
                        ='Church Receives Assistance:0-40';
  label log132='log 132 Job Compromising faith:0-32';
run;
proc means data=leaders3 maxdec=1 fw=4 n missing mean stddev min g1
      median q3 max;
  var 132 133 150 151 135;
run;
proc freq data=leaders3;
  tables 132 133 150 151 135;
run:
%medianp(dataM=leaders3, varM=132, GroupM=LeaderId, formatM=%str(LeaderId)
Sign.));
%medianp(dataM=leaders3,varM=132,GroupM=R,formatM=%str(R Region.));
%medianp(dataM=leaders3,varM=132,GroupM=Size,formatM=%str(Size)
sizef. ));
%medianp(dataM=leaders3,varM=132,GroupM=GPz,formatM=%str(GPz
Growth. ));
%medianp(dataM=leaders3, varM=133, GroupM=LeaderId, formatM=%str(LeaderId)
Sign.));
%medianp(dataM=leaders3,varM=133,GroupM=R,formatM=%str(R Region.));
%medianp(dataM=leaders3,varM=133,GroupM=Size,formatM=%str(Size
sizef. ));
%medianp(dataM=leaders3,varM=133,GroupM=GPz,formatM=%str(GPz
Growth. ));
%medianp(dataM=leaders3,varM=150,GroupM=LeaderId,formatM=%str(LeaderId)
Sign.));
%medianp(dataM=leaders3,varM=150,GroupM=R,formatM=%str(R Region.));
%medianp(dataM=leaders3,varM=150,GroupM=Size,formatM=%str(Size)
sizef. ));
%medianp(dataM=leaders3,varM=150,GroupM=GPz,formatM=%str(GPz
Growth. ));
%medianp(dataM=leaders3,varM=151,GroupM=LeaderId,formatM=%str(LeaderId)
Sign.));
%medianp(dataM=leaders3,varM=151,GroupM=R,formatM=%str(R Region.));
%medianp(dataM=leaders3,varM=151,GroupM=Size,formatM=%str(Size)
sizef. ));
```

%medianp(dataM=leaders3,varM=151,GroupM=GPz,formatM=%str(GPz Growth.));

%medianp(dataM=leaders3,varM=135,GroupM=LeaderId,formatM=%str(LeaderId Sign.)); %medianp(dataM=leaders3,varM=135,GroupM=R,formatM=%str(R Region.)); %medianp(dataM=leaders3,varM=135,GroupM=Size,formatM=%str(Size sizef.)); %medianp(dataM=leaders3,varM=135,GroupM=GPz,formatM=%str(GPz Growth.));

proc corr data=leaders3; var 101Age 102 103 104 105 106home 107 Role; run; *104=105;

* 132: Job Compromise Christian Faith;; title4 '132: Job Compromise Christian Faith'; proc genmod data=leaders3; class 101Age 102 103 104 106home 107 Role R Size GPz ChurchId / PARAM=GLM; model 132= 101Age 102 103 104 106home 107 Role R Size GPz / dist=normal link=identity; repeated subject=ChurchId / type=exch covb corrw; format 101Age 101Age. 102 sex. 103 1032f. 104 104PD. 105 105menno. 106home boolean. 107 107un. Role Role. R region5f. Size sizef. GPz Growth.; output out=132out pred= Pred resraw= Residuals; run; quit; title4 'Normal Q-Q Plot for Generalized Estimating Equations of Jobs Compromise Christian Faith by Leader Demographics'; proc univariate data=132out noprint; qqplot Residuals / normal cframe = ligr square vaxis=axis1; axis1 label=(a=90 r=0); run; * 133: Participate in Activities; title4 ' 133: Participate in Activities'; proc genmod data=leaders3; class 101Age 102 103 104 106home 107 Role R Size GPz ChurchId / PARAM=GLM; model 133= 101Age 102 103 104 106home 107 Role R Size GPz / dist=normal link=identity;

*repeated subject=ChurchId;

repeated subject=ChurchId / type=exch covb corrw;

format 101Age 101Age. 102 sex. 103 1032f. 104 104PD. 105 105menno. 106home boolean. 107 107un. Role Role. R region5f. Size sizef. GPz Growth.; output out=133out pred= Pred resraw= Residuals; run; quit; title4 'Normal Q-Q Plot for Generalized Estimating Equations of Activities Compromise Christian Faith by Leader Demographics'; proc univariate data=133out noprint; qqplot Residuals / normal cframe = ligr square vaxis=axis1; axis1 label=(a=90 r=0); run; * 150: Church Needs Assistance; title4 '150: Church Needs Assistance'; proc genmod data=leaders3; class 101Age 102 103 104 106home 107 Role R Size GPz ChurchId / PARAM=GLM; model 150= 101Age 102 103 104 106home 107 Role R Size GPz / dist=normal link=identity; *repeated subject=ChurchId; repeated subject=ChurchId / type=exch covb corrw; format 101Age 101Age. 102 sex. 103 1032f. 104 104PD. 105 105menno. 106home boolean. 107 107un. Role Role. R region5f. Size sizef. GPz Growth.; output out=150out pred= Pred resraw= Residuals; run; quit; title4 'Normal Q-Q Plot Generalized Estimating Equations of Church Assistance Needs by Leader Demographics'; proc univariate data=150out noprint; qqplot Residuals / normal cframe = ligr square vaxis=axis1; axis1 label=(a=90 r=0); run; * 151: Church Receives Assistance; title4 '151: Church Receives Assistance'; proc genmod data=leaders3; class 101Age 102 103 104 106home 107 Role R Size GPz ChurchId / PARAM=GLM; model 151= 101Age 102 103 104 106home 107 Role R Size GPz / dist=normal link=identity; repeated subject=ChurchId / type=exch covb corrw; format 101Age 101Age. 102 sex. 103 1032f. 104 104PD. 105 105menno. 106home boolean. 107 107un. Role Role. R region5f. Size sizef. GPz Growth.; output out=151out pred= Pred resraw= Residuals; run; quit; title4 'Normal Q-Q Plot for Generalized Estimating Equations of

```
Church Assistance Receives by Leader Demographics';
proc univariate data=151out noprint;
      gqplot Residuals / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run;
%medianp(dataM=leaders3,varM=135,GroupM=R,formatM=%str(R Region.));
proc print data=leaders3;
  var LeaderId 135 R Size GP;
  format R region5f. Size sizef. GPz Growth.;
  where 135>=100;
run:
data leaders3;
  set leaders3;
      135a=135; if 135>=100 then 135a=100;
      label 135a='Expected 5-year % Change in Attendance 135 truncated
at 100';
run;
* 135: Expectation of Increased Attendance;
title4 '135: Expectation of Increased Attendance';
*all;
proc genmod data=leaders3;
  class 101Age 102 103 104 106home 107 Role R Size GPz ChurchId /
PARAM=GLM;
  model 135= 101Age 102 103 104 106home 107 Role R Size GPz /
      dist=normal link=identity;
  repeated subject=ChurchId / type=exch covb corrw;
  format 101Age 101Age. 102 sex. 103 1032f. 104 104PD. 105 105menno.
      106home boolean. 107 107un. Role Role. R region5f. Size sizef.
GPz Growth.;
  output out=135out pred= Pred resraw= Residuals;
run;
quit;
title4 'Normal Q-Q Plot for Generalized Estimating Equations of
Expectation of Increased Attendance by Leader Demographics';
proc univariate data=135out noprint;
      qqplot Residuals / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run;
*remove outliers;
proc genmod data=leaders3;
  class 101Age 102 103 104 106home 107 Role R Size GPz ChurchId /
PARAM=GLM;
  model 135= 101Age 102 103 104 106home 107 Role R Size GPz /
      dist=normal link=identity;
  repeated subject=ChurchId / type=exch covb corrw;
  format 101Age 101Age. 102 sex. 103 1032f. 104 104PD. 105 105menno.
      106home boolean. 107 107un. Role Role. R region5f. Size sizef.
GPz Growth.;
  output out=135xout pred= Pred resraw= Residuals;
  where 135<200;
run;
quit;
```

```
title4 'Normal Q-Q Plot for Generalized Estimating Equations of
Expectation
*excluding outliers';
*of Increased Attendance by Leader Demographics';
proc univariate data=135xout noprint;
      qqplot Residuals / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run:
*truncated outcome;
proc genmod data=leaders3;
  class 101Age 102 103 104 106home 107 Role R Size GPz ChurchId /
PARAM=GLM;
  model 135a= 101Age 102 103 104 106home 107 Role R Size GPz /
      dist=normal link=identity;
  repeated subject=ChurchId / type=exch covb corrw;
  format 101Age 101Age. 102 sex. 103 1032f. 104 104PD. 105 105menno.
      106home boolean. 107 107un. Role Role. R region5f. Size sizef.
GPz Growth.;
  output out=135aout pred= Pred resraw= Residuals;
run;
quit;
title4 'Normal Q-Q Plot for Generalized Estimating Equations of
Expectation of Increased Attendance outliers truncated by Leader
Demographics';
proc univariate data=135aout noprint;
      qqplot Residuals / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run;
```

run;

```
title1 'Scatterplot of Percentage Change in Attendance by Year';
proc gplot data=Pastors3;
```

```
plot GP * Size;
format GP percent.2;
run;
```

```
title1 'Normal Q-Q Plot Linear Model of Percentage Change in
Attendance';
title2 'by Region and Size';
proc univariate data=gpout noprint;
  qqplot Residuals / normal cframe = ligr square vaxis=axis1;
  axis1 label=(a=90 r=0);
run;
title1 'Normal Q-Q Plot for Linear Model of Percentage Increase in
Attendance';
title2 'by Church Level Covariates';
proc univariate data=pout2 noprint;
      qqplot Residuals / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run;
*Leader Level;
title1 'Q-Q Plot for Linear Model of Jobs Compromise Christian Faith
Score';
title2 'by Leader Demographics and Church Region, Size, Growth Status';
proc univariate data=132out noprint;
      gqplot Residuals / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run;
title1 'Q-Q Plot for Linear Model of Activities Compromise Christian
Faith Score';
title2 'by Leader Demographics and Church Region, Size, Growth Status';
proc univariate data=133out noprint;
      qqplot Residuals / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run;
title1 'Q-Q Plot for Generalized Estimating Equations of
Church Assistance Required';
title2 'by Leader Demographics and Church Region, Size, Growth Status';
proc univariate data=150out noprint;
      qqplot Residuals / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run;
title1 'Q-Q Plot for Generalized Estimating Equations of
Church Assistance Received';
title2 'by Leader Demographics and Church Region, Size, Growth Status';
proc univariate data=151out noprint;
      qqplot Residuals / normal cframe = ligr square vaxis=axis1;
      axis1 label=(a=90 r=0);
run;
title1 'Q-Q Plot for Generalized Estimating Equations of Expectation
of
```

.

title2 'by Leader Demographics and Church Region, Size, Growth Status';

Increased Attendance';

```
proc univariate data=135out noprint;
       qqplot Residuals / normal cframe = ligr square vaxis=axis1;
       axis1 label=(a=90 r=0);
 run;
 title1 'Q-Q Plot for Generalized Estimating Equations of Expectation
 of
 5-year Increased Attendance (outliers excluded)';
· title2 'by Leader Demographics and Church Region, Size, Growth Status';
 proc univariate data=135xout noprint;
       qqplot Residuals / normal cframe = ligr square vaxis=axis1;
       axis1 label=(a=90 r=0);
 run;
 title1 'Q-Q Plot for Generalized Estimating Equations of Expectation
 of
 5-year Increased Attendance (outliers truncated)';
 title2 'by Leader Demographics and Church Region, Size, Growth Status';
 proc univariate data=135aout noprint;
       qqplot Residuals / normal cframe = ligr square vaxis=axis1;
       axis1 label=(a=90 r=0);
```

run;