

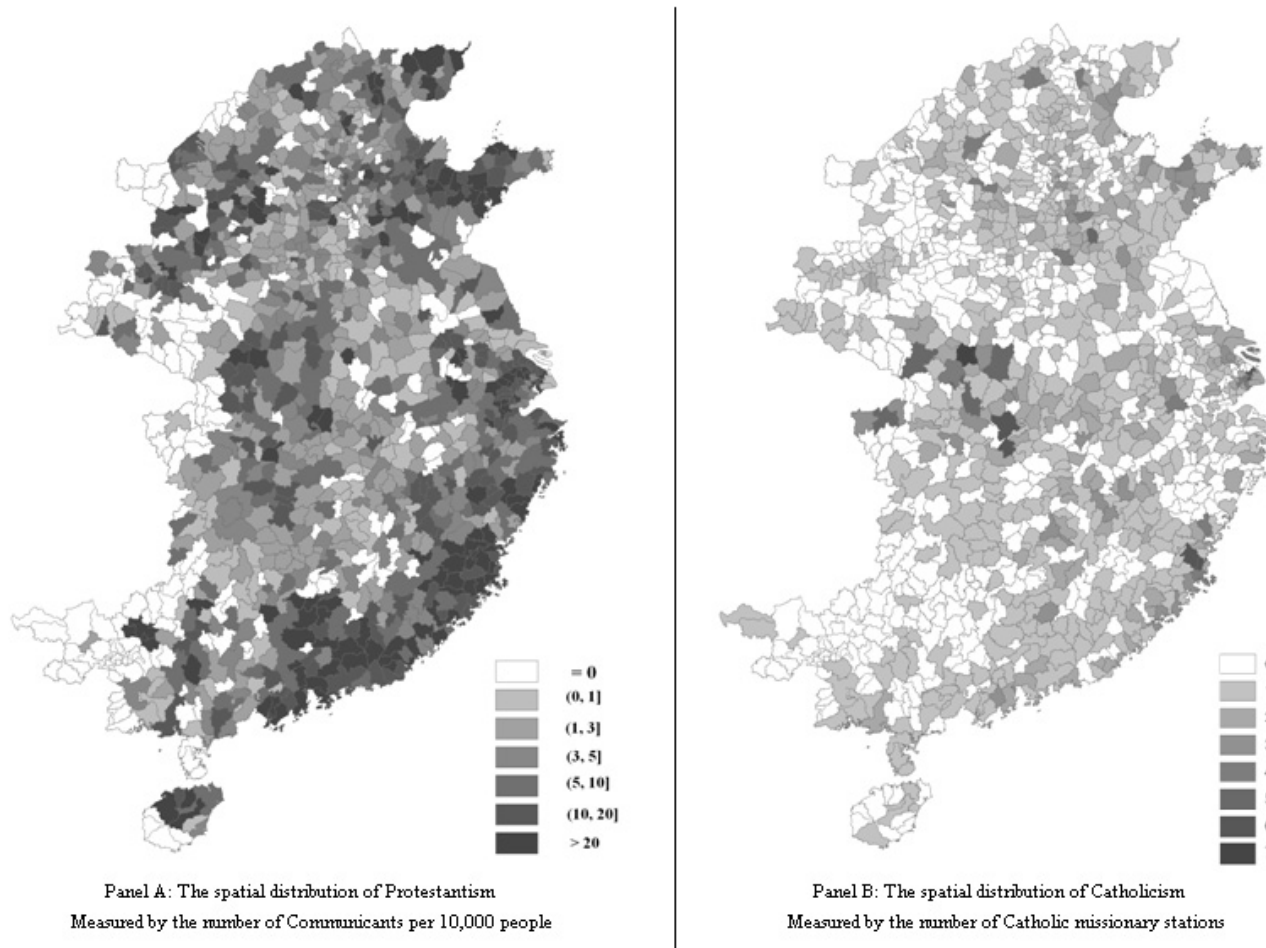
Appendix A: Documentation of Data Sources – Table A1

Variable	Data sources
Protestantism	<p>The various measures of Protestant missionaries in China in the period 1918-1921 were jointly surveyed by the Special Committee on Survey and Occupation and the China Continuation Committee (Source: “<i>The Christian Occupation of China: A General Survey of the Numerical Strength and Geographical Distribution of the Christian Forces in China</i>”, Stauffer, 1922).</p> <p>Appendix A of Stauffer (1922) contains information on the following two variables at the county level: (the number of) Christian communicants around 1920 and (the number of) Christian communicants per 10,000 population/people. We match the county list in 1922 with that in 1840, and arrive at 1175 counties in 14 provinces.</p>
Missionary information	<p>Appendix A of Stauffer (1922) contains information on the missionary societies in each county (names). Stauffer (1922, p. 26) lists the missionary societies along with their denominations and host countries.</p>
Knowledge diffusion	<p>Appendix A of Stauffer (1922) contains information on the lower and higher primary student enrollments in 1920 at schools erected by the Protestants at the county level. Based on such information, we construct the number of lower primary students in the total population (K_1) and the number of higher primary students in the total population (K_2).</p> <p>Appendix E of Stauffer (1922) enumerates the middle schools and hospitals by location. Based on this information, we compute the number of middle schools (K_3) and hospitals (K_4) of each county.</p> <p>Stauffer (1922, p. 1111) enumerates Bible schools by location, which is used to construct the number of Bible schools.</p>
Roman Catholicism	<p>Appendix C of Stauffer (1922) contains maps of the provincial distribution of Roman Catholic Mission Stations. Based on these maps, we count the number of Roman Catholic Mission Stations in each county, and normalize it by the total population.</p>
Urbanization in 1920	<p>Appendix G of Stauffer (1922) contains a list of cities with urban population larger than 25,000. Based on the information on total county population (Appendix A of Stauffer, 1922), we obtain the urbanization ratio for each</p>

	county by dividing the urban population by the total population.
Western influence	The duration of treaty ports or railways is calculated from the initial year of the establishment of a treaty port or a railway, the information of which is provided by Yan (1995) in <i>Selected Statistical Materials on the Modern Chinese Economy (Zhongguo Jindai Jingji Ziliao Xuanbian)</i> .
Urbanization before 1840	In his book “ <i>Urban Networks in Ch’ing China and Tokugawa Japan</i> ”, Rozman (1974) classifies cities in China into four size categories. Since the highest category contains only one city (Peking), we reclassify all cities into only three size categories, namely Big, Mid-sized, and Small.
Geography	The <i>China Historical Geography Information System (CHGIS)</i> of Harvard Yenching Institute provides detailed information on the coastline and rivers of China, from which we can derive two dummy variables to indicate whether a prefecture is located on the coast and along the <i>Changjiang</i> River (Yangtze River). Also, based on the data of <i>CHGIS</i> , including latitude and longitude of the prefecture capital, we can compute the distance to the Boxer Uprising. <i>CHGIS</i> also provides the size of each county. We calculate the population density in 1920 by dividing the total population (Appendix A of Stauffer, 1922) by the size of each county.
Population density (1850s)	<i>China Population History</i> (Ge, 2000) contains information on population density.
Boxer Uprising	Annex 8 of the Boxer Protocol provides a list of prefectures with Boxers.
Data on World Missionaries	<i>A Geography and Atlas Protestant Missions</i> (Beach, 1903) lists the missions in 1900 in 19 countries (or regions), with which we match the missionary societies in China and construct three indices of knowledge diffusion (please find the details in Appendix D and E).

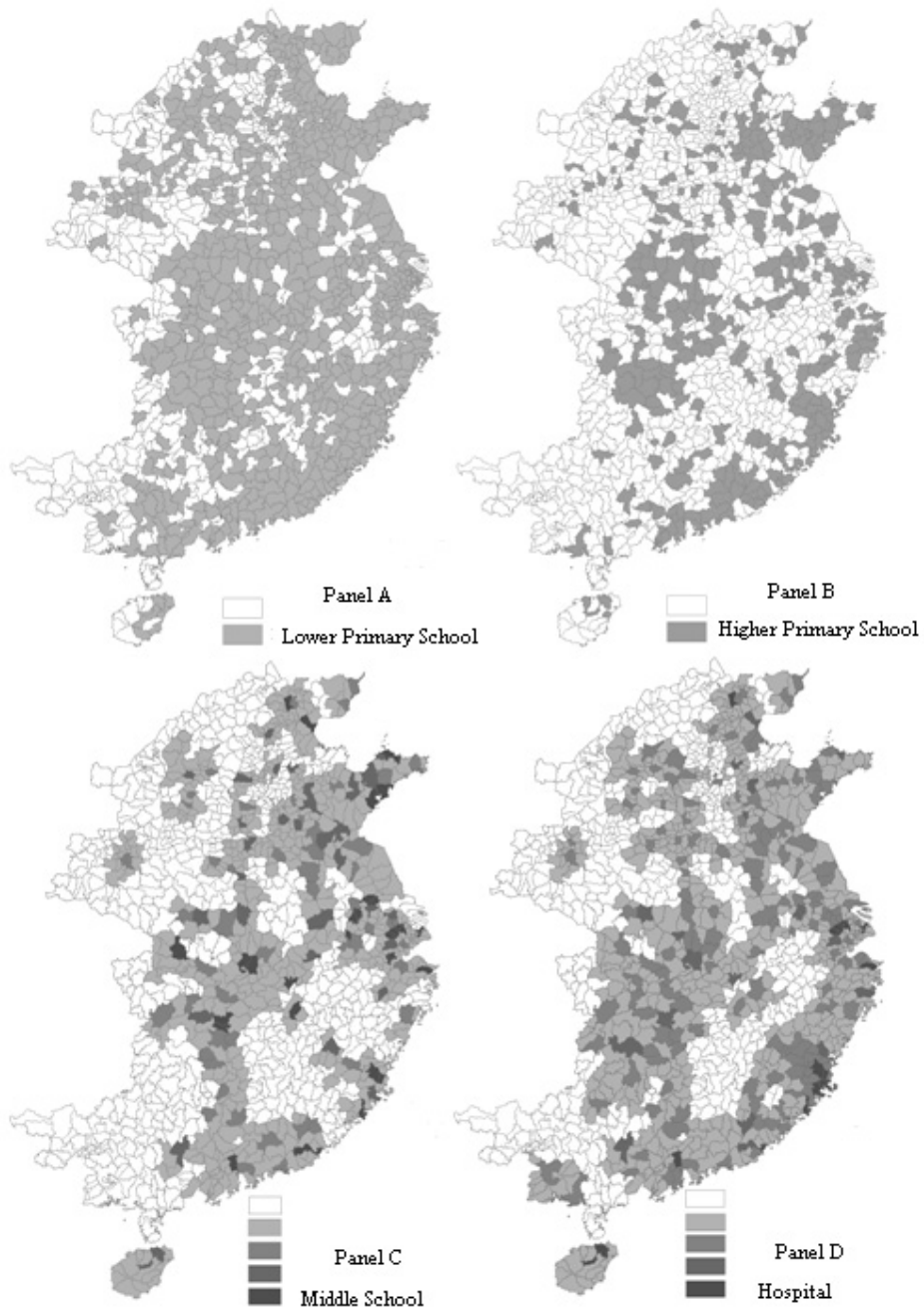
Appendix B: Protestantism and Knowledge Diffusion in China

Figure A1: The Spatial Distribution of Protestantism and Catholicism in China, 1920



Source: *The Christian occupation of China: a general survey of the numerical strength and geographical distribution of the Christian forces in China.*

Figure A2: Knowledge Diffusion Activities in China



Appendix C: Heterogeneous Effect of Protestantism on Urbanization

As it is possible that Protestantism may have different effects in regions characterized by differing geographic-cum-economic conditions (county size, political center, locational characteristics, etc.), for robustness we interact these variables with Protestantism (Table A2). On the one hand, we find that Protestantism has a significantly larger effect in the large cities (column (1)), in counties where the political centers were located (column (4)), and along China's major waterway—the Grand Canal (column (5)). On the other hand, Protestantism has no additionally significant effect in counties with supposedly greater Western economic influences (treaty ports, column (1); railway, column (2)), nor in counties situated along the coastal seaboard or the Yangtze (*Changjiang*) River (columns (6) and (7)). Above all, the main effect of Protestantism remains significant across this broad range of additional controls.

Table A2 about here

Table A2: The Effects of Interacting Protestantism with a number of Controlling Variables on Urbanization

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Protestantism	0.129** (0.047)	0.138** (0.063)	0.120** (0.049)	0.114** (0.049)	0.153** (0.055)	0.153** (0.055)	0.144** (0.062)
Protestantism*Initial economic conditions:							
Protestantism*Small city	0.486 (0.364)						
Protestantism*Middle city	0.367 (0.280)						
Protestantism*Large city	1.533*** (0.322)						
Protestantism*Treaty ports		0.054 (0.089)					
Protestantism*Railways			0.155 (0.112)				
Protestantism*Prefectural center				0.430* (0.202)			
Protestantism*Grand Canal					0.547*** (0.155)		
Protestantism* <i>Changjiang</i> (Yangtze) River						0.265 (0.345)	
Protestantism*Coast							0.068 (0.168)
All control variables (<i>W</i>)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Provincial dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1175	1175	1175	1175	1175	1175	1175
R-squared	0.37	0.34	0.35	0.37	0.35	0.35	0.34

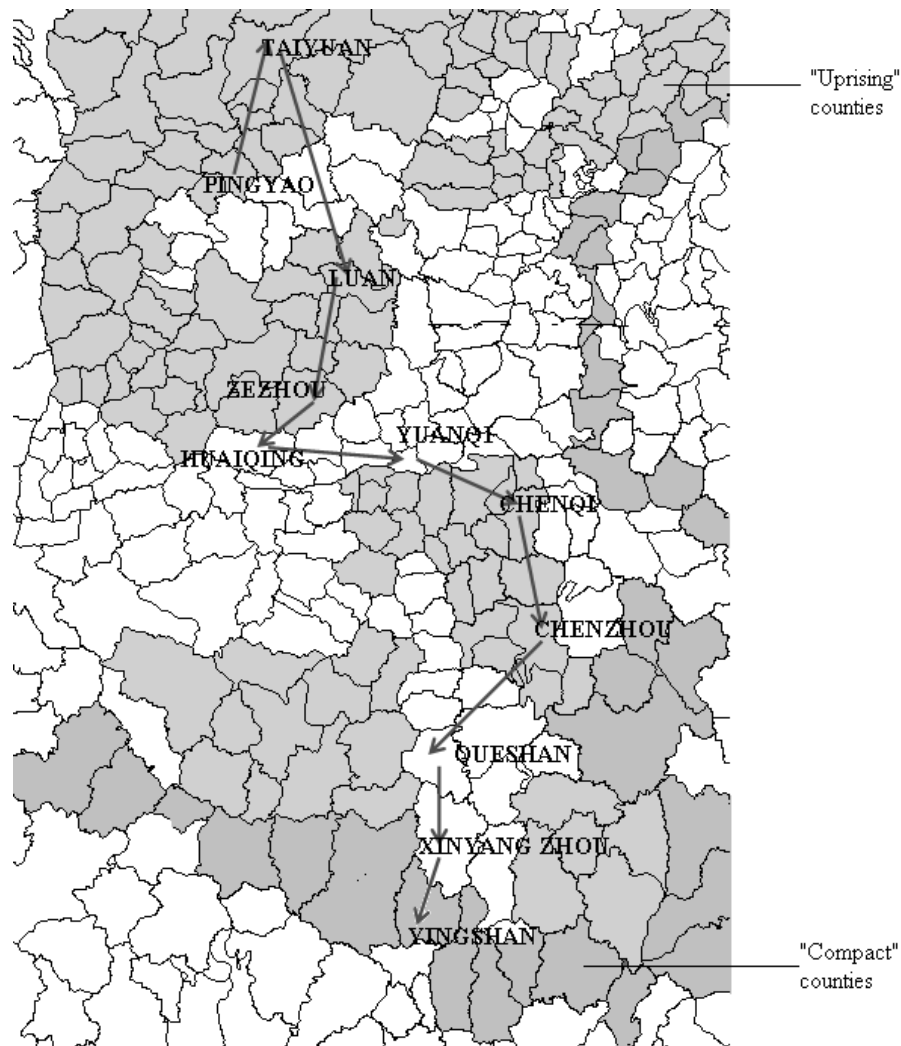
Note: Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Constant terms are not reported.

Appendix D: Saunders' Recollection of His Retreat during the Boxer Uprising – Table A3

Date	Location	Records
June 26	Pingyao	“June 26 th , when our place was attacked and looted, and we with our four children, had to escape...” (Saunders, 1900: 5)
June 28	Taiyuan	“June 28 th , we got within seven miles of T'ai-Uen (Taiyuan), where we met a convert who told us that we had better not go there as the large compound of the Sheoyang Mission had been burned the night before, and Miss Coombs burned to death.” (Saunders, 1900: 7)
July 5	Luan	“So we turned southward again and set our faces towards Lu-Ch'eng – a city in the Lu-an district ... We arrived at the city on Thursday, July 5 th , and stayed until Saturday, the 7 th , when the station also was rioted.” (Saunders, 1900: 9)
July 12	Ze Zhou	“We pushed on and reached Tseh-chow (Ze Zhou) Fu, the border city of Shanxi, about 11 pm (July 12 th). We passed through many towns and villages and it was in this district our suffering reached its climax.” (Saunders, 1900: 20)
July 16	Huaiqing and Yuanqi	“We reached Huai-ching Fu and were treated tolerably well by the officials there and at our next stopping place, U-chi Hsien.” (Saunders, 1900: 24)
July 20	Chenqi	“Money was supplied us at U-chi Hsien freely and we began to hope for a rapid journey to Han-kow. Disappointment met us, for at Chen-Chi Hsien...” (Saunders, 1900: 25)
July 22	Chenzhou	“We were sent on by cart, but as common criminals...” (Saunders, 1900: 27)
July 28	Queshan	“This treatment continued for six days, till we reached Ch'ioh-shan Hsien, where we were taken to a temple, and the Mandarin's wife sent round sweetmeats for the children.” (Saunders, 1900: 28)
July 30	Xinyang Zhou	“At Sin-yang Chow, the border city of Ho-nan, which we reached on Monday, July 30 th ... We stopped at Sin-yang Zhou three days, because soldiers were passing on route for Pekin(g), and it was feared that if we met them on the road trouble might arise.” (Saunders, 1900: 28)
August 2	Yingshan ^a	“We found in passing through Ho-nan that it was our greatest protection from the wrath of the people to let them know that we were Protestants...” (Saunders, 1900: 29)
August 14	Hankou	“Now we had come to the Hu-pen Province, ruled over by Chang-chih Tung, and we were treated well by all the officials, and instead of travelling as before, in carts...and the rest of our journey to Han-kow was accomplished in comparative comfort. We arrived at our mission house on Tuesday morning, August 14 th , in all 49 days since we left Ping-iao.” (Saunders, 1900: 29)

^a Yingshan is a county in Hubei Province but is contiguous to Xinyang Zhou in Henan Province.

Figure A3: The Retreat Route of Saunders, a Missionary



Source: Constructed based on Saunders (1900)

Appendix E: IV-Validity

Table A4: The Association between “Distance to the Boxer Uprising” and Various Geographic Factors

	(1) Coast (dummy)	(2) Yangtze River (dummy)	(3) Grand Canal (dummy)	(4) Treaty ports (dummy)	(5) Rail networks (dummy)	(6) Distance to the sea (log-term)	(7) Distance to the five earliest treaty ports
Distance to Boxer Uprising	0.021 (0.013)	0.009 (0.010)	-0.004 (0.011)	0.019 (0.017)	0.048 (0.039)	-0.062 (0.049)	-0.014 (0.032)
Latitude	-2.762*** (0.636)	0.407 (0.298)	0.541* (0.268)	-1.780*** (0.563)	0.435 (0.786)	6.663*** (1.247)	1.933 (1.380)
Longitude	-0.274 (0.262)	-0.082 (0.115)	-0.090 (0.174)	-0.291 (0.237)	0.003 (0.320)	1.175** (0.529)	-1.765*** (0.572)
Latitude ²	0.012*** (0.003)	-0.002 (0.001)	-0.003* (0.001)	0.008*** (0.003)	-0.002 (0.003)	-0.030*** (0.006)	-0.011 (0.007)
Longitude ²	0.005** (0.002)	-0.001 (0.001)	-0.000 (0.000)	0.003 (0.002)	0.003 (0.003)	-0.019*** (0.004)	-0.000 (0.004)
Latitude* Longitude	-0.001 (0.003)	0.001 (0.001)	0.001 (0.002)	0.001 (0.002)	-0.001 (0.004)	0.001 (0.006)	0.017** (0.007)
Observations	1175	1175	1175	1175	1175	1175	1175
R-squared	0.49	0.22	0.15	0.30	0.40	0.89	0.84

Notes: Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Constant term and provincial dummies are included but not reported.

APPENDIX F: Lists of Missionary Societies – Table A5

Missionary societies in China ¹		Missionary societies around the world ²	
Abbreviation		Abbreviation	
AAM	American Advent Mission Society (Advent Christian Mission)	AA	American Advent Mission Society
ABCFM	American Board of Commissioners for Foreign Missions	ABCFM	American Board of Foreign Missions
ABFMS, or ABF	American Baptist Foreign Mission Society	ABMU	American Baptist Missionary Union
AFM	Apostolic Faith Missionaries	HFM	Hephzibah Faith Mission
AFO	American Friends' Mission (Ohio Yearly Meeting)	AFFM	American Friends' Board of Foreign Missions
AG	General council of the Assemblies of God		
B	Evangelische Missionsgesellschaft zu Basel	B	Evangelische Missions-Gesellschaft, Basel
BMS	Baptist Missionary Society	BMS	Baptist Missionary Society
BN, or Bn	Berliner Missionsgesellschaft	Bn	Ges. Z. Beforderung d. ev. Missionen unter d. Heiden
CCACZ	Christian Catholic Church in Zion	ZCCC	Zion Catholic Christian Church
CCAu	Federal Foreign Mission committee of Churches of Christ in Australia	FCA	F. M. Com., Fed. Ch's of Australia and Tasmania
CGM	Church of God Mission	CG	Board of Missions, Gen. Eldership, Churches of God
CHM	Canadian Holiness Movement		
ChMMS	China Mennonite Missionary Society	MenEB	Mennonite Evangelizing and Benevolent Board
CIM	China Inland Mission	CIM	China Inland Mission
CM	Christians' Mission		
CMA	Christian and Missionary Alliance	CA	Christian and Missionary Alliance
CMML	Christian Missions in Many Lands		
CMS	Church Missionary Society	CMS	Church Missionary Society
CMS+CEZMS	Church of England Zenana Missionary Society	CEZMS	Church of England Zenana Miss'y Society
CNTM	China New Testament Mission		
CPW	Cumberland Presbyterian Mission	CP	Board of Missions and Church Erection, Cumb. Prb.
CSFM	Church of Scotland Foreign Mission Committee	CSFM	Church of Scoltalnd Foreign Mission Committee
EA	Missionary Society of the Evangelical Association of	EA	Missionary Society, Evagelical Association

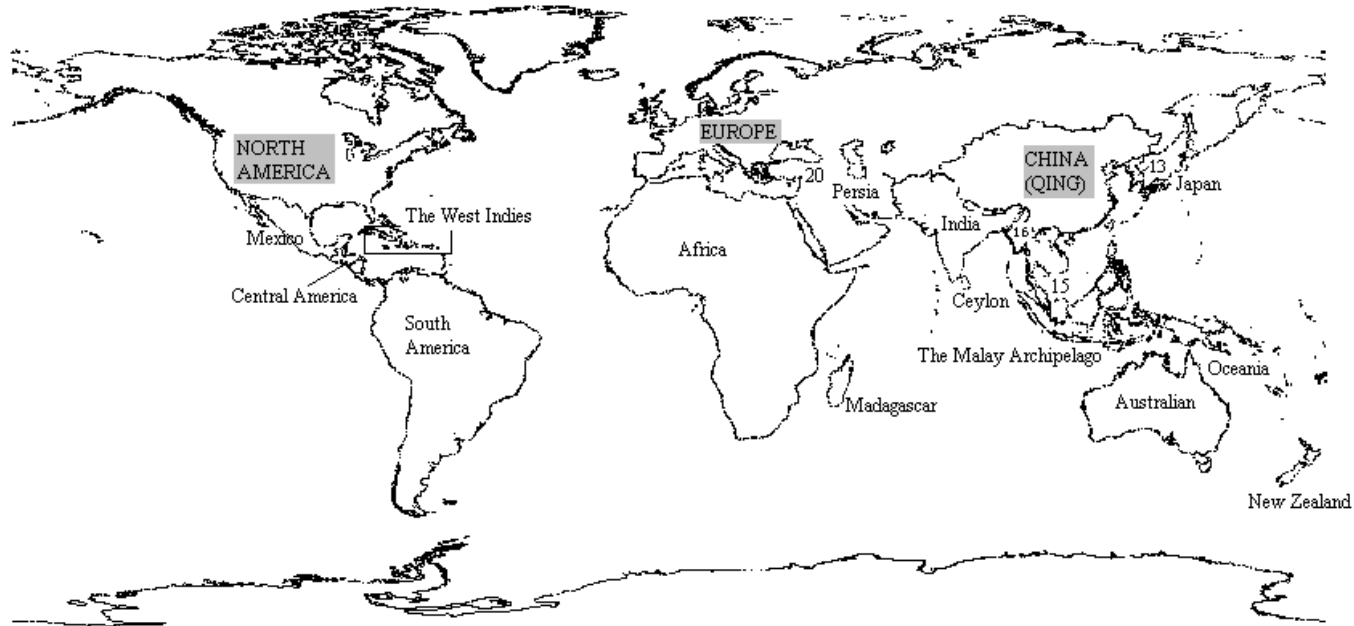
	North America		
EbM	Ebenezer Missions		
ELAug	Augustana Synod of the Evangelical Lutheran Church of North America	ELGC	Board of F. M., Gen. Counc., Ev. Luth. Ch., N. A.
ELMo	Evangelical Lutheran Synod of Missouri and other States	ELGS	Board of For. Miss., Evangelical Church, Gen. Syn.
EPM	English Presbyterian Mission	PCE	Foreign Missions Com., Presb. Church of England
EvM	Evangel Mission		
FCMS	Foreign Christian Missionary Society	FCMS	Foreign Christian Missionary Society
FFC(CIM)	Fria Missionen I Finland (Finnish Free Church Mission)		
FMA	American Free Methodist Mission	FMA	Gen. Miss. Board, Free Methodist Church. N.A.
FMS	Finska Missions-Sallskapet	FMS	Finska Missions-Sallskapet
GBB	General Mission Board of the Church of the Brethren	GBB	Gen. Miss. And Tract Com., German Baptist Brethren
GCAM or GCAM(CIM)	German China Alliance Mission in Barmen	ND	Gesellschaft fur innere und aussere Mission
Heb	Hebron Mission		
HF(CIM)	Helgelse-Forbundet (Swedish Holinese Union)	HF	Helgelseforbundet
ILM	Independent Lutheran Mission		
Ind	Independent Missionaries	IU	Independent and Unconnected
KCM	Kieler China Mission		
L(CIM)	Liebenzeller Mission		
LB	American Lutheran Brethren Mission		
LBM	Lutheran board of Missions	LFC	Lutheran Board of Missions
LMS	London Missionary Society	LMS	London Missionary Society
LUM	Lutheran United Mission	UN	United Norwegian Lutheran Church in America
MBM	Mennonite Brethren Mission		
MEFB	Board of Foreign Missions of the Methodist Episcopal Church	MEN	Missionary Society of the Methodist Episc. Church
MES	Methodist Episcopal Mission, south	MES	Board of Missions of the M. E. Church, South
MGC	General Conference of the Mennonites of North America	FB	General Conference of Free Baptists
MP	Methodist Protestant Mission	MP	Board of Foreign Missions, Methodist Prot. Church
MSCC	Missionary Society of the Church of England in Canada	CEC	Dom. and For. M. S., Church of England, Canada

NCM	Tsjilimissionen (North Chihli Mission)		
NFEM	Norges Frie Evangeliske Missionsforbund		
NHM	National Holiness Mission	IBM	Independent Baptist Missionary Movement
NKM	Northwest Kiangsi Mission		
NLF	Mission of the Evangelical Lutheran Free church of Norway	SchA	Synod of the Norwegian Evang. Luth. Ch. In Amer.
NLK or NLK(CIM)	Norwegian Lutheran Mission	Sch	Norske Kirkes Mission ved Schreuder
NMC(CIM) or NMF(CIM)	Norske Mission I Kina (Norwegian Missino in China)	NLK	Norske lutherske Kinamissionsforbund
NMS or NMS(CIM)	Norwegian Missionary society	NM	Norske Missionsselskab
PCC	Board of Foreign Missions of Presbyterian church in Canada	PCC	Foreign Missions Committee, Presb. Church, Canada
PCN	General Missionary board of the Pentecostal Church of the Nazarene	PBW	Pentecost Bands of the World
PCNZ	Foreign Mission Committee of Presbyterian Church of New Zealand	PCNZ	Presbyterian Church of New Zealand
PE	Protestant Episcopal church, U.S.A.	PE	Domestic and Foreign M. S., Prot. Episc. Church
PN	American Presbyterian Mission, North	PN	Board of Foreign Missions, Presb. Church, North
PS	American Presbyterian Mission, South	PS	Exec. Com. Of For. Missions, Presb. Church, South
RCA	Board of Foreign Missions of the Reformed Church in America	RCA	Board of For. Miss., Reformed Church in America
RCUS	Board of Foreign Missions of the Reformed Church in U.S.A	RCUS	Board of For. Miss., Reformed Church in the U.S.
Ricksha	Shanghai Ricksha Mission		
RM	Rhenish Mission	RM	Rheinische Missionsgesellschaft
RPC	Reformed Presbyterian Mission	RP	Synod of Reformed Presb. Church in N. America
SA	Salvation Army	SA	Salvation Army
SAM(CIM)	Scandinavian China Alliance Mission	SAM	Scandinavian Alliance Mission of North America
SBC	Foreign Mission board of the Southern Baptist	SBC	Foreign Mission Board, Southern Baptist Convention

	convention		
SBM	Swedish Baptist Mission	SBM	Sällskapet Svenska Baptist Missionin
SCBM	South China Boat Mission	MS	Missions to Seamen
SCHM	South China Holiness Mission	PMS	Peniel Missionary Society
SCM	South Chihli Mission		
SDA	Seventh-Day Adventist Mission Board	SDA	Mission Board of Seventh-day Adventists
SDB	Seventh-Day Baptist Missionary Society	SDB	Seventh-Day Baptist Missionary Society
SEFC	Swedish Evangelical Free Church (Swedish American Mission)		
SEMC	Swedish Evangelical Mission Covenant of American	SEMC	Swedish Evangelical Mission Covenant of America
SMC or SMC(CIM)	Svenska Missionen I Kina (Swedish Mission in China)	SKM	Svenska Kyrkans Mission
SMF	Swedish Missionary Society	SMF	Svenska Missionsförbundet
SPG	Society for the Propagation of the Gospel	SPG	Society for the Propagation of the Gospel
TSM	Tsehchowfu Mission		
UB	United Brethren in Christ Mission	UB	Home, Front. And For. M. S., Unit. Breth. In Christ
UE	United Evangelical Church Mission	UE	Home and For. Miss'y Soc., United Evang. Church
UMC	United Methodist Church Mission	UMFC	United Methodist Free Churches H. and F. Missions
WMMS	Wesleyan Methodist Missionary Society	WMS	Wesleyan Methodist Missionary Society
WU	Woman's Union Missionary Society of American	WU	Woman's Union Missionary Society
YM	Yale Foreign Missionary Society		
YMCA	Young Men's Christian Association of China	YMCA	Foreign Department, Y. M. C. A., North America
YWCA	Young Women's Christian Association of china	YWCA	World's Young Women's Christian Association

Data sources: ¹. Stauffer (1922); ². Beach (1903)

Appendix G: World Map and Sampled Regions with Protestantism Diffusion – Figure A4



5	Mexico	15	Siam, Laos, Straits Settlements and Port
6	Central America	16	Burma
7	The West Indies	17	Ceylon
8	South America	18	India
9	Oceania	19	Persia
10	New Zealand and Australian	20	Turkey or the ottoman Empire
11	The Malay Archipelago, or Malaysia	21	Africa
12	Japan and its outlying islands	22	Madagascar and other African Island
13	Korea	23	Fields practically unoccupied
14	China		