Basic Church Growth Data Analysis

A Case Study based on Brasov Country, Romania

By Russ Mitchell, 2013

Executive Summary

This article describes the Basic Church Growth Data Analysis that was done by OC International for each of the 42 "counties" in Romania during the period of 1999-2002. Descriptions of the communication tools used are provided. The explanations are given to enable other researchers to perform similar analysis. Data for the "county" of Brasov is used in this example.

Background

These presentations were based in information gathered in a DAWN type research project conducted in Romania between 1998 and 2001. The research project was a partnership between the major evangelical denominations, the Romanian Evangelical Alliance, OC International and United World Mission's Romania team.

Methodology

The data gathered followed that recommended in the DAWN Research Manual (found in Resource Downloads/Training).

The research questions were:

- To determine where Evangelical Churches were in the Romania,
- To determine where evangelical churches needed to be planted.
- To document the growth of the Evangelical Churches in Romania.

The purpose of the Research project was (a) to motivate leaders of the Evangelical churches in Romania to set "growth goals" for leadership training, evangelism and church planting and (b) to plant churches in less evangelized areas.

MS Access was used to maintain the Church Data Base and the demographic data base. Findings of the research were presented in numerous regional gatherings of Christian workers and at a national conference e in 2001.

Evaluation

Our data analysis processes and communication tools were perfected over time. Feedback received from national partners and Christian workers was instrumental in choosing media to best communicate the research results. It was sometimes difficult to evaluate the long term impact of these communication tools because there was often no feedback loop. However, follow up visits, interviews,

case studies and anecdotal information did indicate that these communication tools did motivate people to become involved in Church Planting. Results were more closely linked to the level of ownership of local leadership and the ongoing relationship between the local leaders and those promoting the national church planting initiative.

COMMUNICATION TOOLS DESCRIBED

A national report was prepared for the national conference. (An example is found in Resource Downloads/Reports). Also summaries for each of Romania's 42 "counties" were prepared.

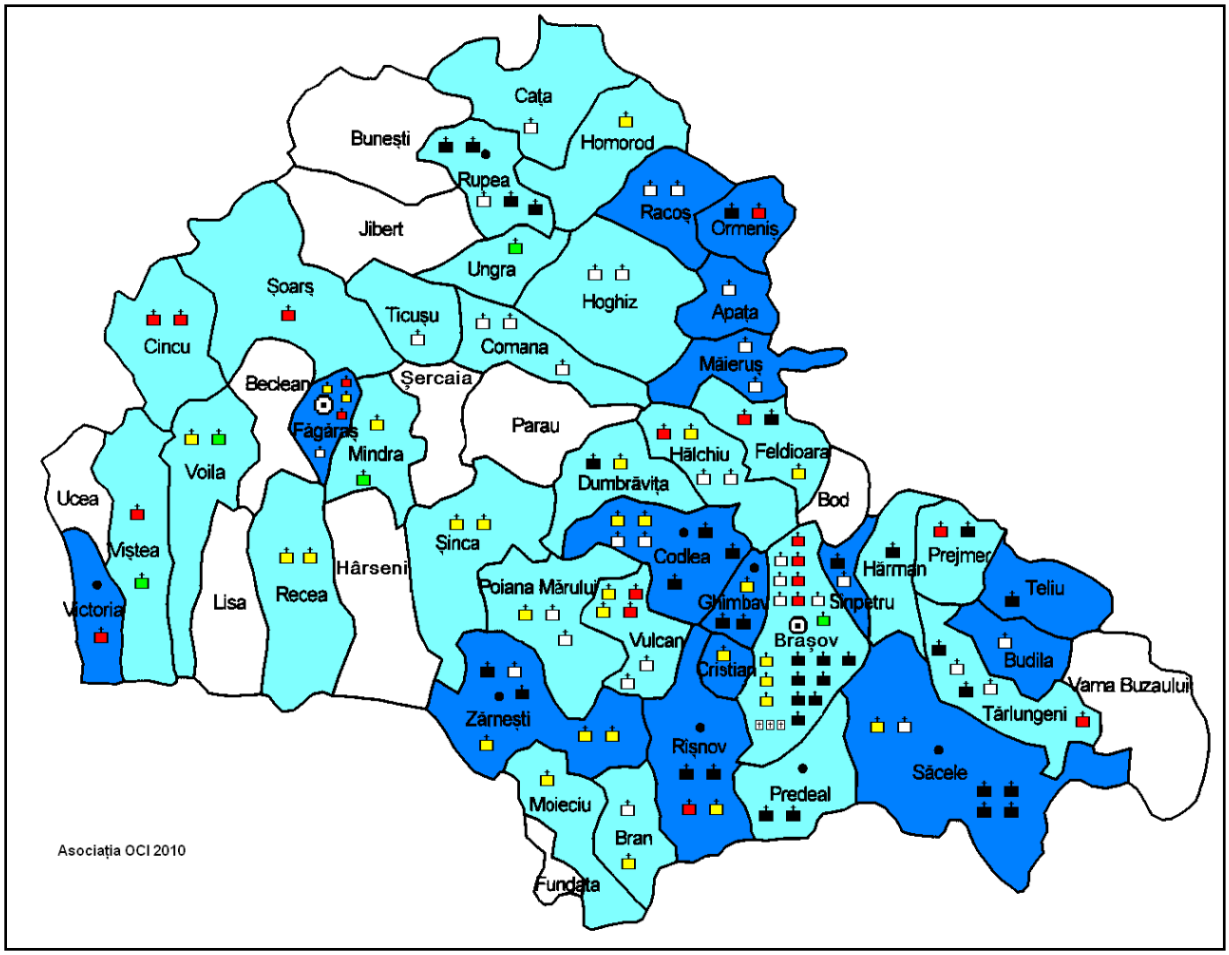
Our major communication tools at the county level were

1. A map of the country
2. A handout explaining 8 basic analyses of the county
3. A list of locations without churches
4. A list of evangelical churches

These tools provided Christian Workers with a "snap shot" of the progress of disciple making in their respective "county" and a projection of the remaining task.

MAPS

Maps proved to be our most popular and most effective communication tool. People used them for prayer and strategy development. We found it a good idea to put a date on the maps since we updated them periodically.



- Light blue areas indicate regions where there are villages without churches.
- Dark blue areas show townships where each village has a church.
- The denomination of the church is color coded. White churches were Pentecostal; red, Baptist; yellow Brethren; green, Romanian Evangelical Church; black, evangelical churches not affiliated with a recognized denomination.

Maps were prepared from digital maps purchases from the Government Statistics Office. A list of churches by county was retrieved from the research database. Then church symbols were placed on the map manually using MS Paint .It was somewhat labor intensive, but it worked for us: it was cheap and worked with the technology of the day.

The maps were based on the following analysis. Darker blue counties show that each location has at least one evangelical church. Light blue shoes the presence of evangelical churches in an area, but that there are also other locations without churches. In some counties we identified townships that were "saturated" with churches, that is to say (1) each location had a church and the church to population ratio was 1:1000 or less. (Calculation: Population of county/number of evangelical churches). These "counties" were colored green.

Intentionality was needed to keep maps up to date as we received new church data. The shading was done using the "paint bucket" tool in MS Paint. Today it is probable that mapping software would be used or a more powerful graphics program such as GIMP or Corel Draw.

HANDOUTS EXPLAINING EIGHT BASIC ANALYSES OF THE COUNTY

These are the "standard" analyses we did for counties of Romania. Each will be discussed in detail.

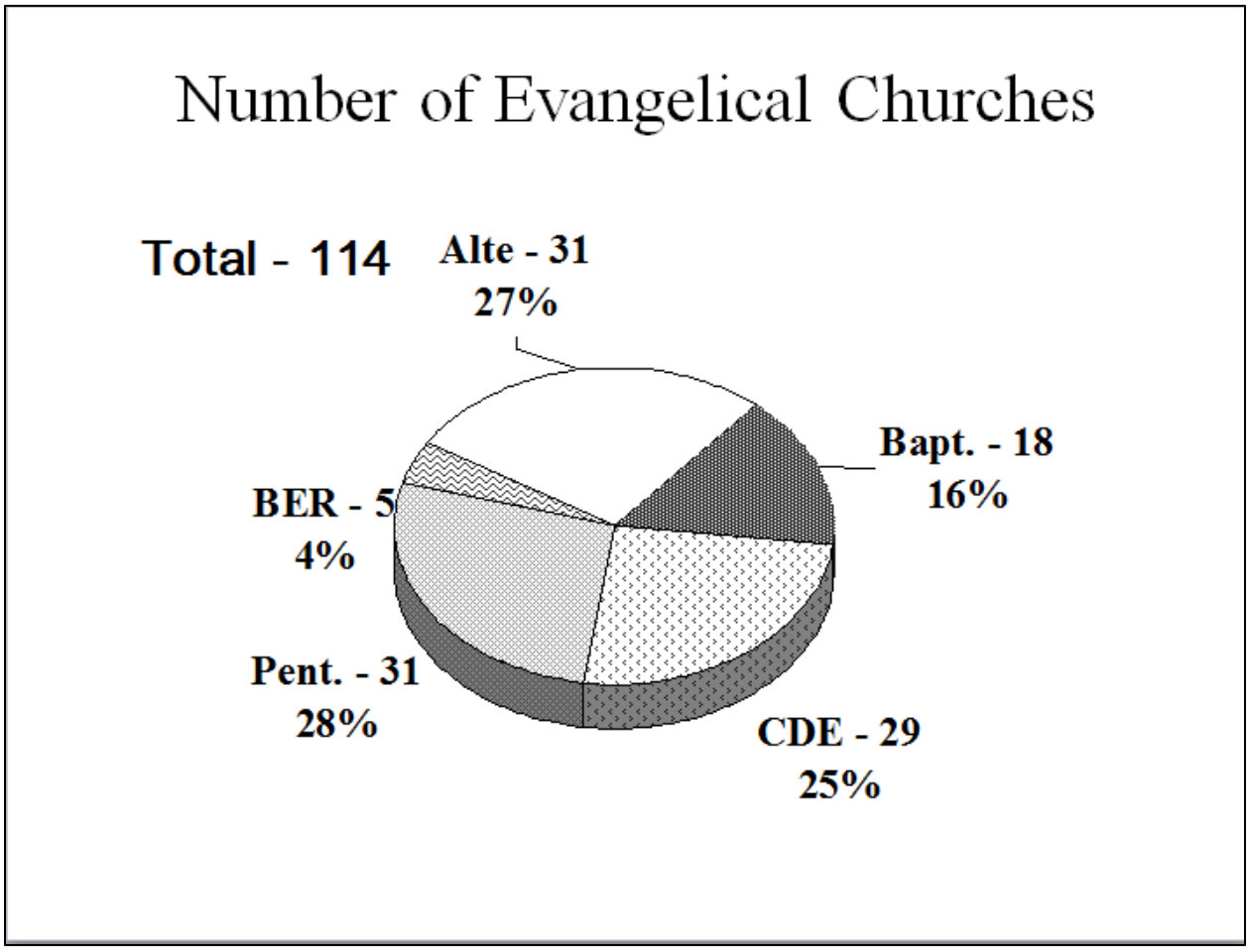
1. Number of Evangelical Churches
2. Growth of evangelical Churches
3. Nr. of churches starts by denomination
4. Growth in the number of evangelicals
5. Population by religious confession
6. Nr. of evangelical churches in urban areas
7. Nr. of evangelical churches in rural area
8. Nr. of evangelicals in villages

We developed a standard data analysis "template" that we filled out for each county based on the information we drew from our Church Data Base, Government demographic data, and other calculations. The "template" served to organized our research findings and reduce errors. Using this "template" facilitated the creation of the following handouts.

A basic PowerPoint "template" was prepared to create each slide. Once the data analysis "template" was completed, this data used in PowerPoint template to create the county slides.

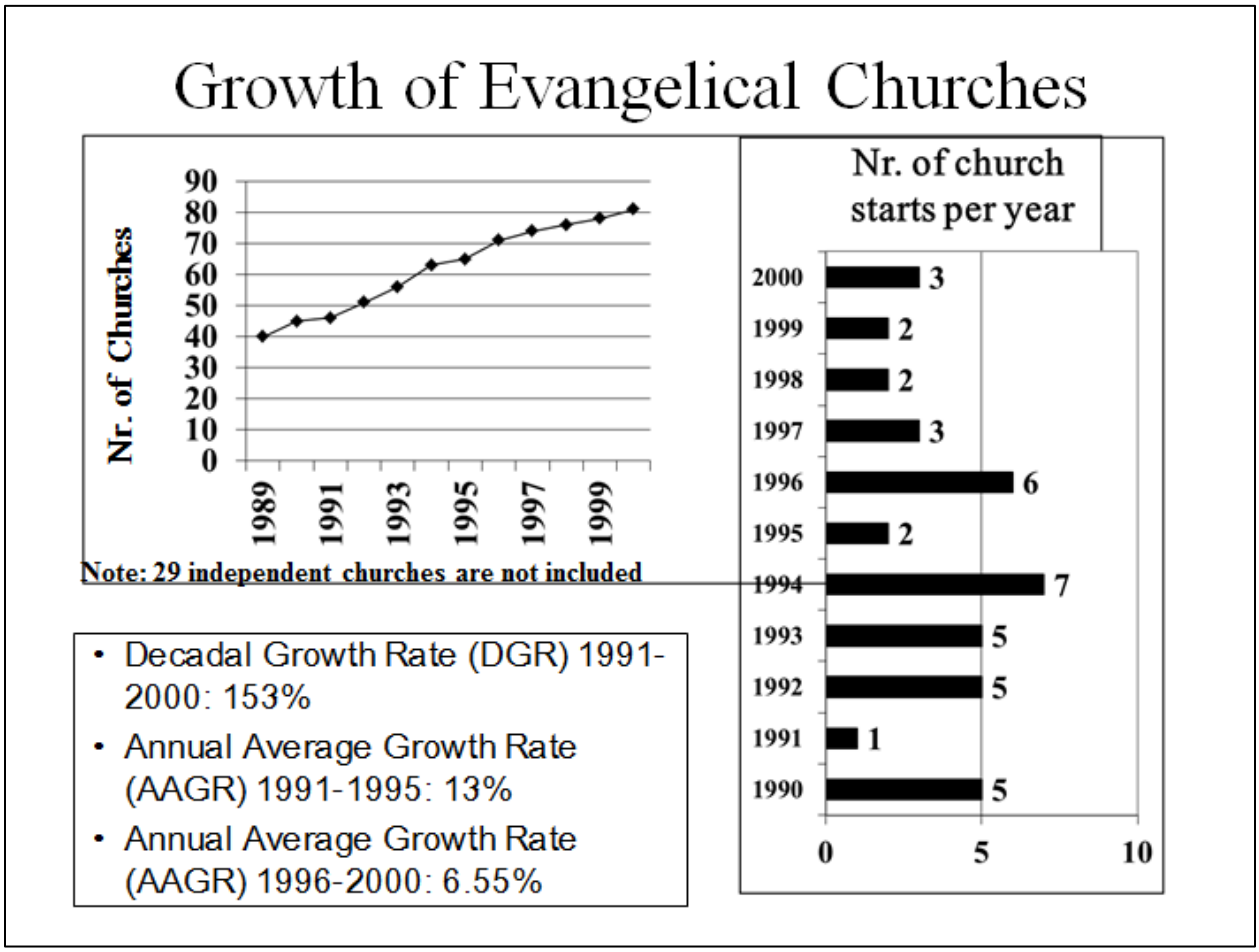
We also created a step by step process on how to use the Access Data base Query function to get the results we desired. Usually several steps were necessary to modify the standard query for each particular country. This step by step procedure enabled several different people to be involved in the analysis process.

1. The Number of Evangelical Churches



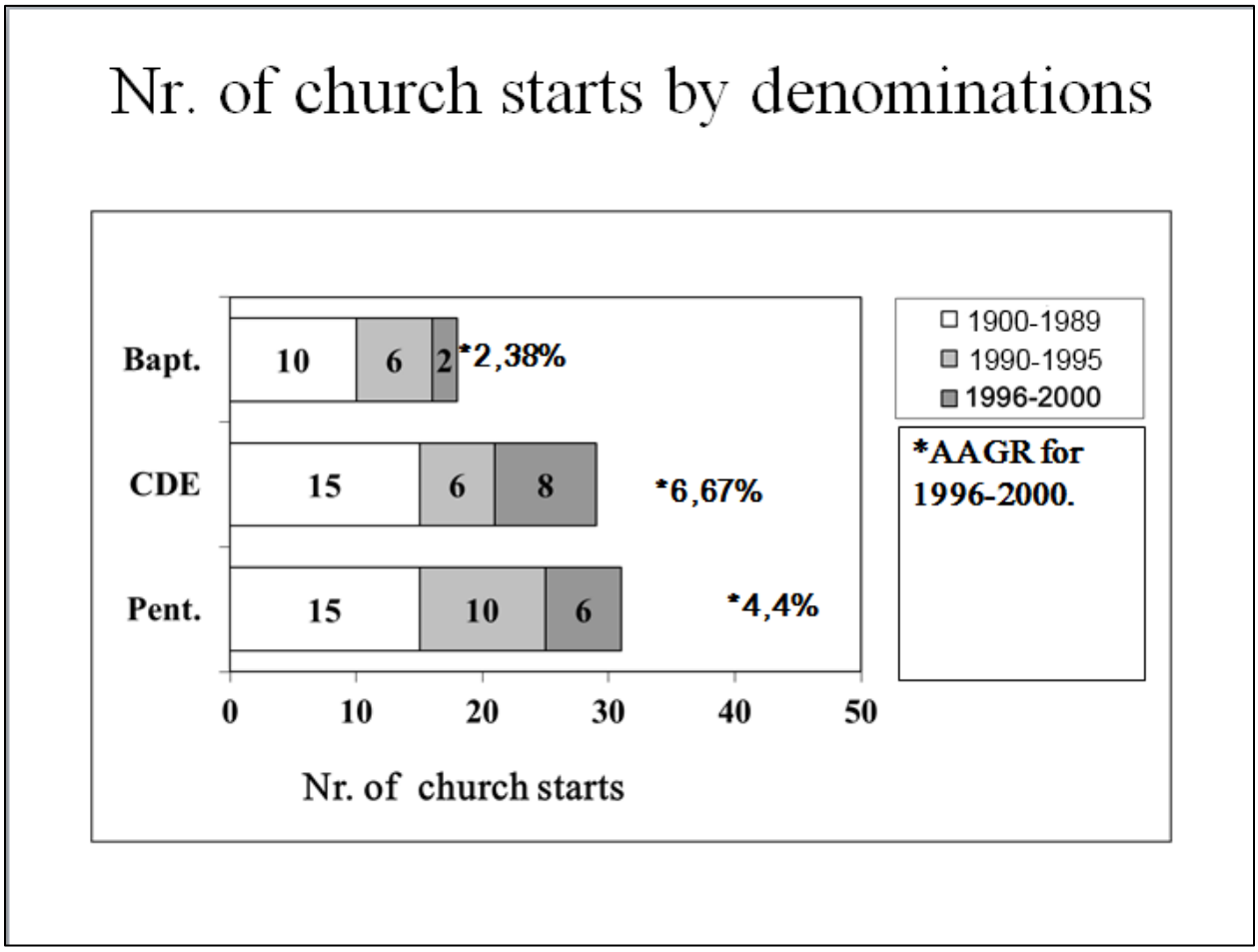
This chart was prepared using the chart tool in Power Point. A query was used to retrieve information from the Church Data Base for the particular country by denomination. The PowerPoint chart tool automatically calculated the percentages.

2. Growth of evangelical Churches



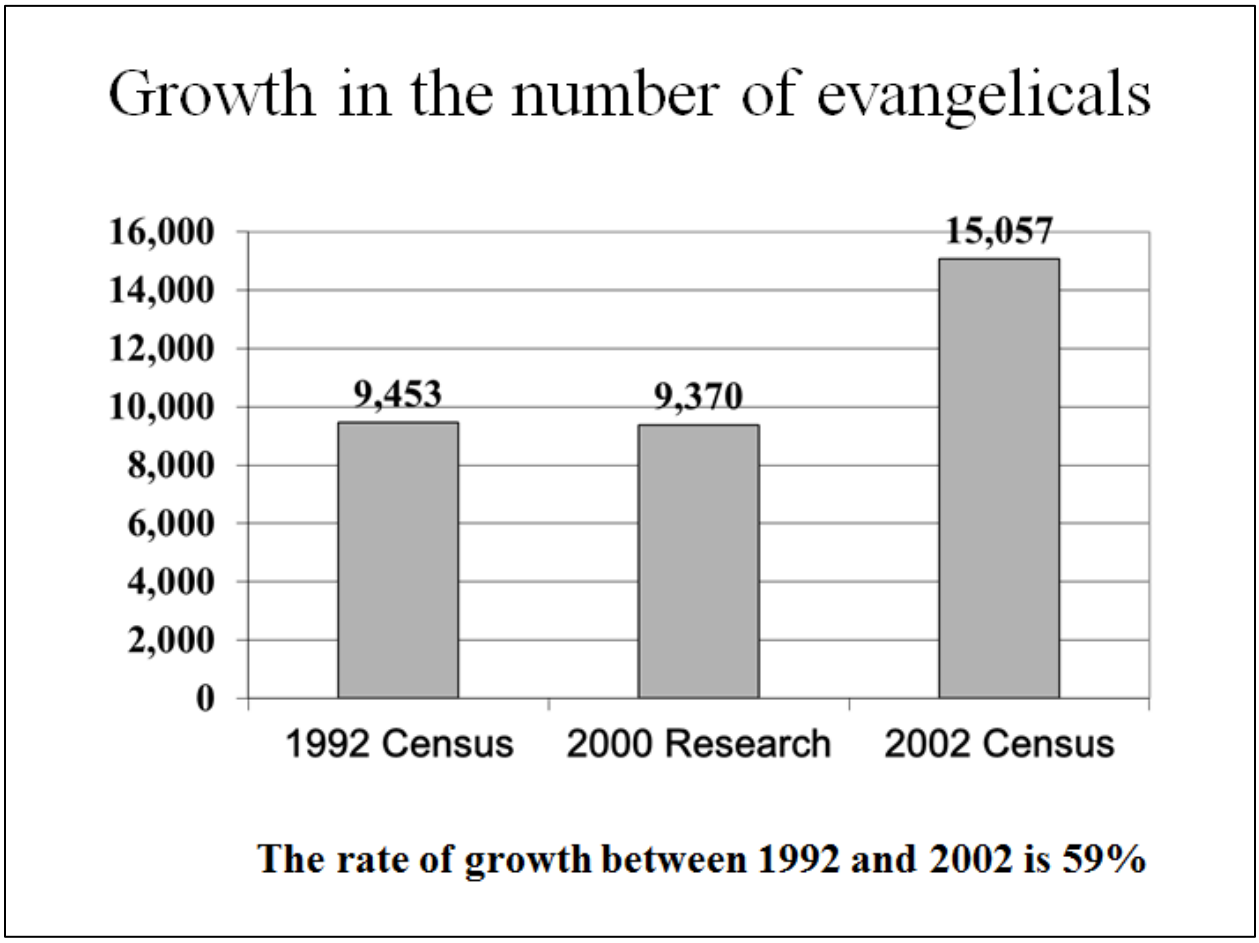
There are three blocks of information here. Two charts were prepared using the chart tool: one showing the progression of Church planting, the other the number of church starts per year. These graphs were based on data retrieved from the Church Data Base using a query. Decadal Growth Rates (DGR) and Average Annual Growth Rates (AAGR) for two periods were also calculated. Comparing AAGRs for the two periods allows conclusions to be drawn regarding growth trends. Tables from the Church Growth Handbook by Waymire and Wagner (found in Resource Downloads/training) were used. See the articles about Decadal Growth Rate and Average Annual Growth Rates to learn more about these calculations and other ways to perform them using spread sheets. Also see Resource Downloads/Tools for spread sheets that will perform these calculations.

3. Nr. of churches starts by denomination



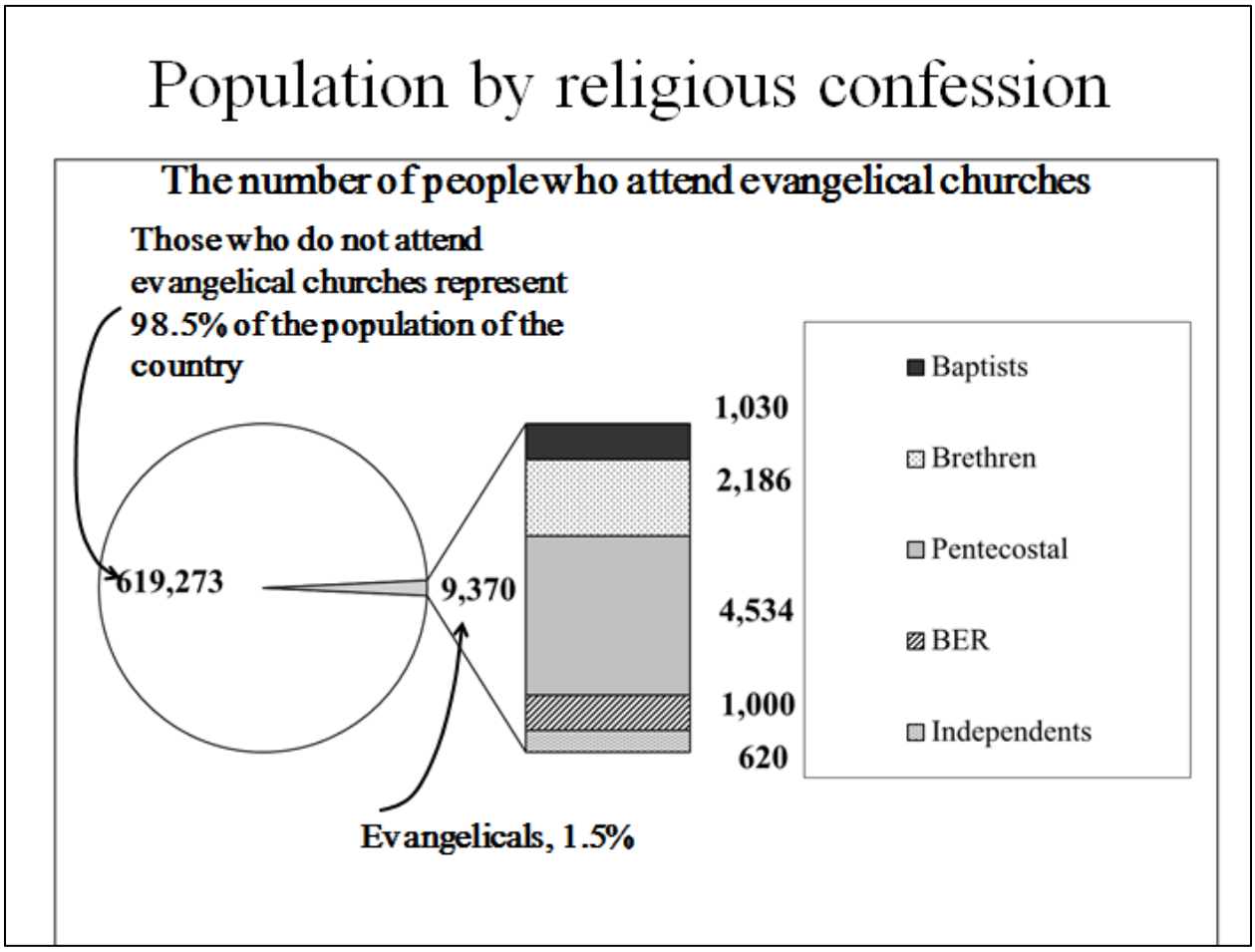
This analysis by denomination was prepared by using a query from the Church Data Base. Church starts for three periods were given: 1900-1989; 1990-1995; 1996-2000. Rational for these periods: The establishment of evangelical churches in Romania was largely a 20th century phenomenon. It was extremely difficult to start churches during the communist period. In fact, numerous churches were forcibly closed. The collapse of communism in Romania in December of 1989 ushered in a new era where it was possible to openly evangelize and establish churches. So here was an explosion of church planting from 1990-1995. We also wanted to compare the AAGRs for the latter half of the decade. Average Annual Growth Rates were calculated using the tables in the Church Growth Survey Handbook. Noting the differing rates between denominations sparked many good conversations that led to the determination of the **factors** that influenced growth (or the lack of growth).

4. Growth in the number of evangelicals



This chart was prepared using information from the 1992 and 2002 Romanian National Census and data for the number of church members and adherents from our Church Data Base. The Census specified the "evangelical groups" we were working with. In this particular county we had some difficulty in getting membership figures from all churches. We found a good correlation between the 2002 Census and our survey information in other counties where we were able to get more complete survey data. The Decadal Growth Rate (DGR) was calculated using information from the 1992 and 2002 Census data. Church leaders often did not accept the Census figures as realistic. (They considered the number of evangelicals to be larger, based on mass responses at public evangelistic events in the early 1990s) But our research showed that they were quite reliable.

5. Population by religious confession



The intent of this chart is to show the Harvest Force (the number of people who attend evangelical churches) and the Harvest Field (The number of people who do not attend evangelical churches). The figures for the number of evangelicals came from our Church Data Base. The population of the county was taken from Census data. A spread sheet was used to calculate the numbers and percentages based on this information.

6. Nr. of evangelical churches in urban areas

Evangelical churches in urban areas

	Nr. of evangelical churches in each cityî								
City	Bapt	CDE	Pent	BER	Other	Total	Pop.	Ratio①	5000:1②
Brașov	4	3	2	1	5	15	309.671	20.645	47
Făgăraș	1	2	1	0	0	4	43.938	10.985	5
Victoria	1	0	0	0	0	1	10.745	10.745	2
Zărnești	0	3	0	0	1	5	26.650	5.330	1
Săcele	0	1	1	0	4	6	30.205	5.034	1
Râșnov	1	1	0	0	2	4	16.108	4.027	0
Codlea	0	2	2	0	3	7	24.918	3.560	0
Predeal	0	0	0	0	2	2	6.547	3.274	0
Rupea	0	0	1	0	4	5	6.317	1.263	0
Total	7	12	8	1	21	49	475.099	9.696	58

① Ratio refers to how many people per each church

② Represents the number of churches that should be started in each city so that there is a maximum of 5,000 per evangelical church

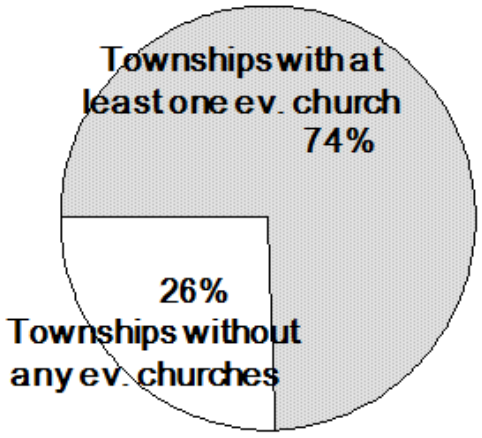
This table shows the number of evangelical churches in each city in the “county”. We also wanted to make a case for church planting in urban areas. So we included the population from the census and calculated the church to population ratio (Population/Nr. of Churches). For this example we also wanted to determine how many churches would be needed in each location to achieve a population to church ratio of 5,000 people per evangelical church. (Calculation: Population/5000- Nr evangelical Churches). In other areas, this table highlighted cities without churches.

A separate list of 13 cities was eventually prepared that indicated all of the cities in Romania that did not have an Evangelical Church. By publishing this list we (1) motivated people to pray and prepare to plant churches in these cities or (2) received information that a church had been started in one of these “church-less“ cities.

7. Nr. of evangelical churches in rural area

Nr. of evangelical churches in rural areas

Percent of Towneships with and without Evangelical Churches

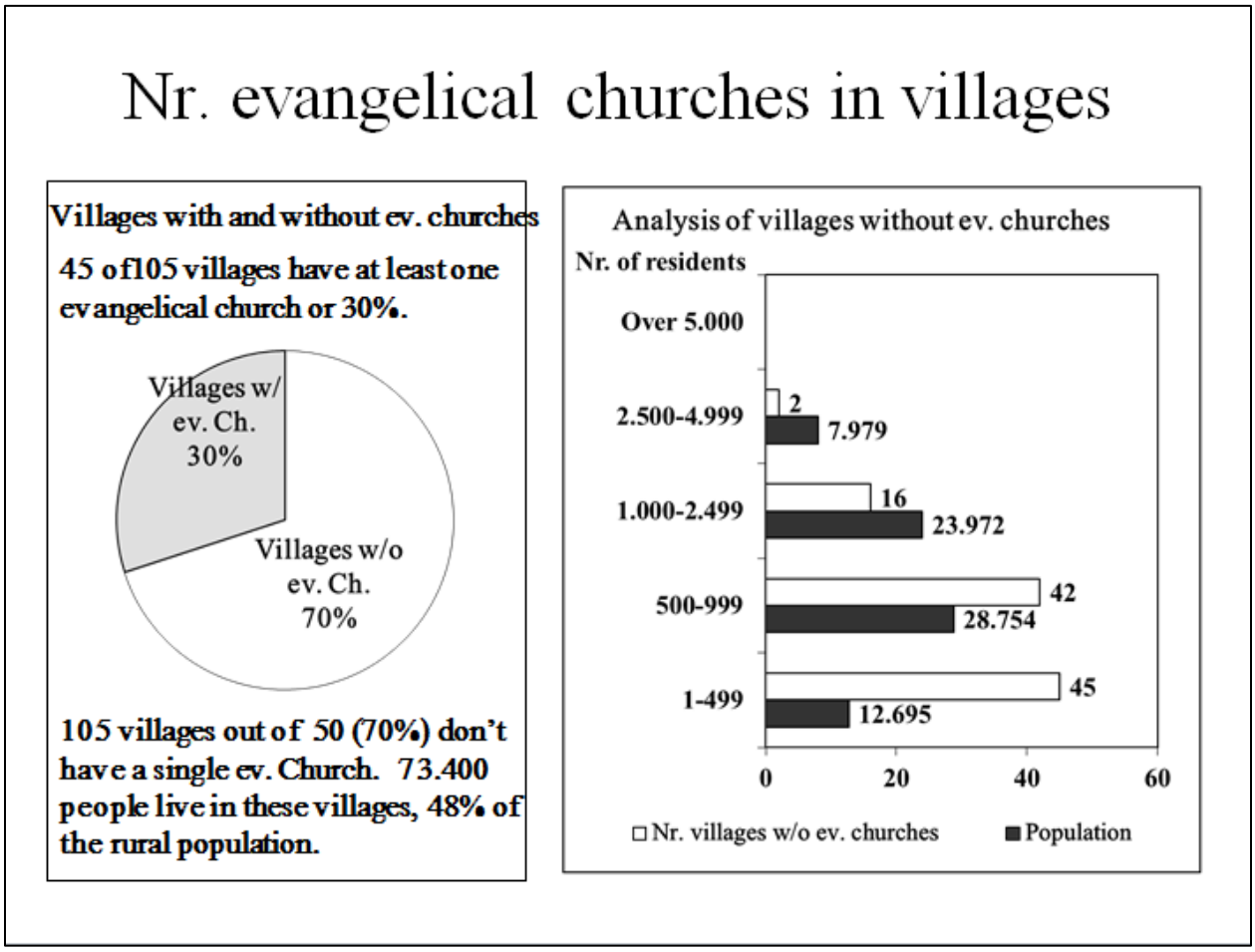


Nr. of evangelical churches present in rural areas by denomination

	Nr. of townships	%
Baptist	9	21%
CDE	14	33%
Pentecostal	14	33%
Other indep. churches	13	30%
Townships w/ ev.ch.	32	74%
Townships w/o ev. Ch.	11	26%
Nr of townships:	43	
Nr of townships with a church in each village	10	
Nr of "saturtated" townships:	0	

The pie chart on the left shows the number of townships with and without churches. We were able to use a query in Access to show how many Townships did not have an evangelical church. We also had a table with the total number of townships. The percentage was calculated by the chart tool in PowerPoint. The data table on the right shows the evangelical presence in rural areas by denomination. We also included the number of townships with churches, without churches. We also gave figures pertaining to "saturation", namely, townships with a church in each village and truly "saturated" townships, e.g., a church for every 1,000 people. In this example there were no "saturated" townships. This slide is basically a numerical summary of the data that appears on the map.

8. Nr. of evangelical churches in villages

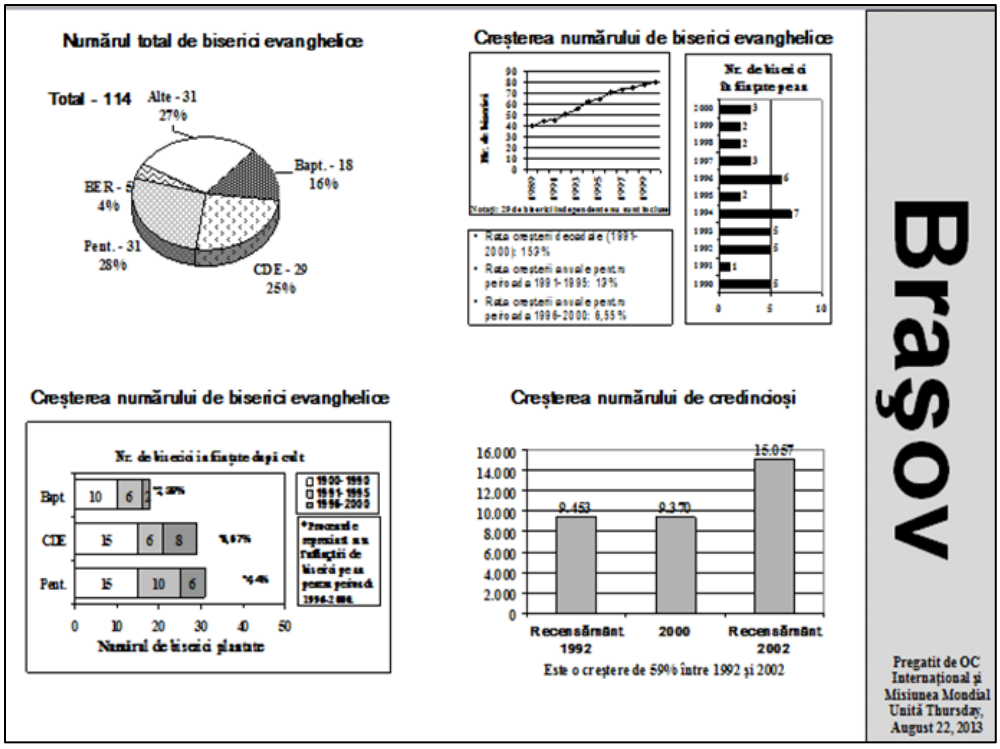


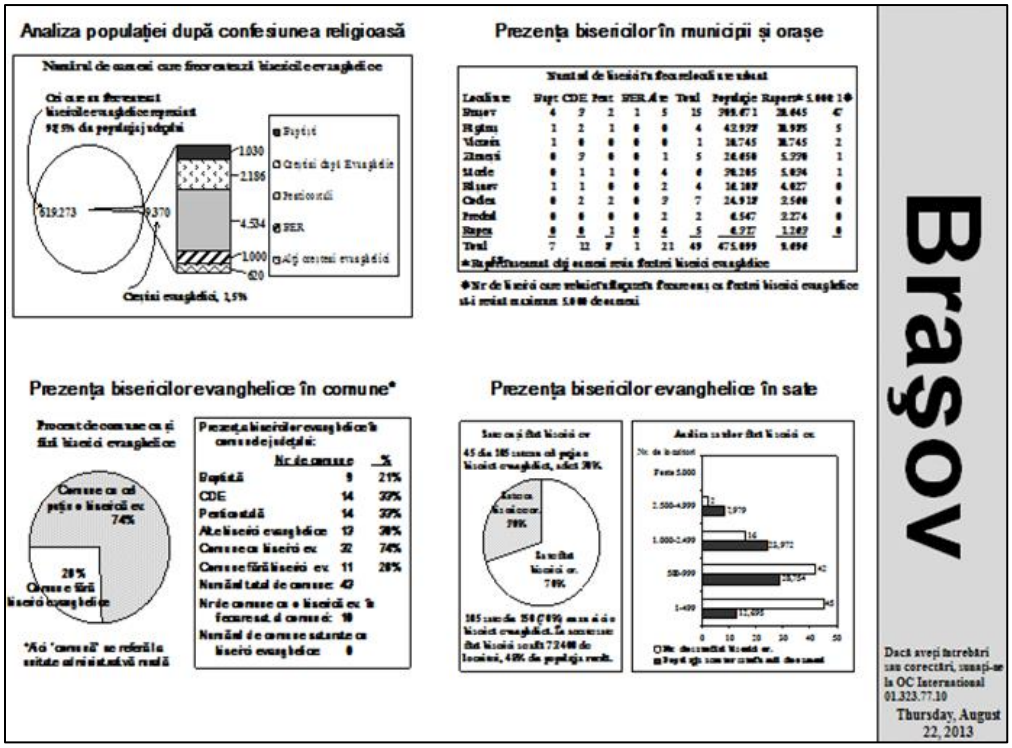
The pie chart shows the number of villages with and without churches. By linking our Church Data Base and the Government Census Data, we could use a query to provide the number of people who did not have access to an evangelical church. We also calculated the percentage of the rural population that did not have access to an evangelical church. The bar chart looks at the number of villages in a respective county without evangelical churches. Using a query, we determined the villages without an evangelical church and the population. This data was exported to a spread sheet where population was sorted in descending order and the populations for each range were calculated. A standard data analysis form was used to note these results. Then the bar graph was created using the Chart tool in PowerPoint.

HANDOUTS

We prepared handouts for Christian workers from these eight "standard" slides that fit on the front and back of a sheet of paper. We created a "template" in Power Point that enabled us to cut-and-paste the slides we prepared into the handout format. These handouts were easy to duplicate in house on our copier for regional meetings with Christian workers. We included the date, because we would update these handouts as new information was received. It also was a part of our protocol with our partner

organization to include their name on the handout, so that they too would receive recognition. Examples follow.





LISTS OF LOCATIONS WITHOUT CHURCHES

From our data bases we were able to use a query to compile a list of locations without evangelical churches. The list included the township and population. Such lists proved to be very helpful in workers meetings. As workers looked at such lists, they would indicate that there was a preaching point or a new church or an independent church in a particular village. We had research forms ready to collect new information and incorporate this into our data base.

It was also dramatic to unfold the list like a scroll at the regional meetings. People were often shocked at how many locations did not have evangelical churches. This motivated prayer, training and church planting activity.

LISTS OF CHURCHES

We also went to regional meetings with lists of churches in that area. This was an opportunity for workers to verify data and fill in gaps (like the number of baptized members or adherents, or founding dates). Sometimes we would learn of new church starts. Other times, we would learn of church starts that cease to exist. Collecting this feedback on research forms allowed us to update our data base.

We also prepared lists of churches with high potential for church planting. Our local partners determined from their field experience that churches with 50 or more members could field at least one church planting team and that churches that were started after 1989 having just 20 members could field a church planting team. These newer churches seemed to have more evangelistic zeal and were easier to mobilize. This list of churches with high potential represents the Harvest Force.

CUSTOM PRESENTATIONS

We did provide custom analysis and presentations upon request or when a there were specific features of an area that required a custom presentation. Often our regional meetings involved several counties or just one denomination. This setting led us to modify our “standard” presentation to suit the context.