RESEARCH METHODOLOGY

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What our work involved

1) The analysis of data gathered over the past decade from the annual returns made by parishes and collated by the Research and Statistics Unit, in conjunction with descriptive statistics for parishes derived from population census data;

2) The collection and analysis of new data from a purpose-built survey of growing, stable and declining churches across all dioceses.

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The survey

- Origins

- Mode: online

- Sample size and response

- Content

Identifying growth

- An 'objective' measure of growth

- Average of the standardised rates of change between 2001-3 and 2009-11 in four indicators:

  - usual adult Sunday attendance

  - all age average weekly attendance

  - child average Sunday attendance

  - Easter attendance

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Identifying growth

- A 'subjective' or self-reported measure of growth

- "During the past five years, has the number of people who attend for worship at least monthly...

    Declined a little

    Declined substantially

    Grown a little

    Grown substantially

    Stayed about the same"

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How closely linked?

- Correlation between the two measures is only 0.29, i.e. some churches with poor statistical returns claim to be doing well and vice versa.

- Measurement error in the objective growth rates, or inaccuracy in the subjective assessment, or both.

- The results were similar whichever measure of growth was used as the variable to be explained, though typically self-reported growth had the stronger associations with other factors.

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The analysis – step 1

•Inspect the descriptive statistics, in particular the frequency distributions of each explanatory variable.

•Interesting to see how much variation is found and at what levels.

•In some instances it may be necessary to exclude outlying values.

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The analysis – step 2

- Check the relationship between growth and the potential explanatory factors.

- Bivariate correlations: is X positively or negatively related to growth?

The analysis – step 3

• Need to control for possibly confounding variables: multivariate analysis is essential.

• Use linear (or ordinary least-squares) regression.

• Growth was the dependent variable, i.e. the value to be explained.

• A variety of explanatory variables were considered simultaneously in order to identify which had significant effects, controlling for the others.

The analysis – step 4

- The initial objective was to find which variables on a particular topic had the clearest connection to growth or decline.

- Also constructed regression models that include all of the variables that seem possible candidates for overall significance.

Warnings

- A number of different factors may be associated with growth along the same causal chain.

- There is an element of chance about which one emerges with the largest coefficients.

- The factors that are less proximate to growth will often but not always be pushed out of the picture by those that mediate their effects.

- Sometimes the variables that appear to be most significant are simply proxies for causal factors to which they happen to be related.

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What can and can't be explained

- The models account for only a quarter of the variance in self-reported growth.

- Random measurement error is partly to blame.

- Also probable that numerical growth in any given case is the product of a host of idiosyncratic factors that cannot easily be detected.

- Cannot rule out the possibility that some major explanatory factor has escaped consideration, but the sheer diversity of parish experience is more likely to be responsible.

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What can and can't be explained

- The amount of variation that cannot be pinned down may ultimately be good news; the scope for action is broad.

- Growth does not result from following a rule book, but from local reflection on what the church and its parish need.

And another issue …

- The direction of causality is often unclear.

- If X, Y and Z are associated with growth, it may be because churches with the ability to grow tend to be interested in X, Y and Z.

Why might church/clergy characteristics be associated with growth?

- direct effects
- contextual effects
- social effects
- affective influence
- confounding selection
- conscious selection
- reverse causation
- social desirability bias

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