

# **Tópicos Avançados: Análise de Dados Amostrais Complexos com a POF**



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# Por que incorporar o desenho amostral?

**Estimativas pontuais:** não é necessário incorporar o delineamento amostral, apenas os pesos amostrais divulgados nos microdados é suficiente.

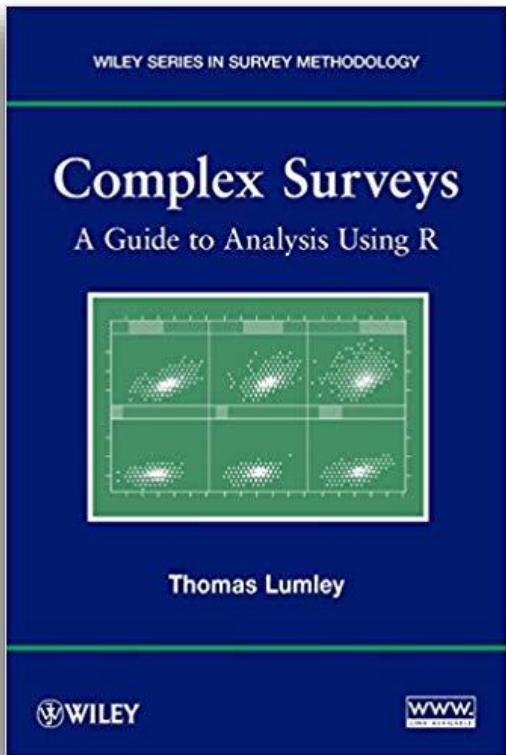
**Estimativas intervalares ou de precisão:** no caso de surveys com amostras complexas (para além da Amostra Aleatória Simples) é necessário utilizar a estrutura do planejamento amostral.

Caso isto não seja realizado a estimação de medidas de variabilidade é enviesada. Este erro é muito comum na estimação de testes de hipóteses, intervalos de confiança e modelos de regressão, onde a significância dos coeficientes de regressão pode estar incorreta.

# Como incorporar?

Alguns estimadores podem ser de difícil estimação (estimadores não facilmente linearizáveis).

Softwares como o R permitem incorporar as características do plano amostral.



Nem sempre a totalidade de informações que caracterizam o plano amostral estão disponíveis, por exemplo o detalhamento da pós-estratificação.

O IBGE, recentemente, está disponibilizando estas informações em algumas pesquisas, como Censo 2010, PNAD e POF.

# Package ‘survey’

January 28, 2019

**Title:** Analysis of Complex Survey Samples

**Description:** Summary statistics, two-sample tests, rank tests, generalized linear models, confidence interval models, Cox models, log-linear models, and general maximum pseudolikelihood estimation for multistage stratified, cluster-sampled, and possibly weighted survey samples. Variations by Taylor series linearization or single strata weights. Post-stratification, calibration, and raking. Two-phase subsampling designs. Graphics. FTS sampling without replacement. Principal components, factor analysis.

**Version:** 3.15-1

**Author:** Thomas Lumley

**Maintainer:** "Thomas Lumley" <tlumley@stat.columbia.edu>

**License:** GPL-2, GPL-3

**Depends:** R (>= 3.1.0), glm, methods, Matrix, survival

**Imports:** base, graphics, graphics2, lattice, stats, MASS

**Suggests:** Image, MASS, Rcmdr, Rcmdr2, Rcmdr.shiny, RGL, RGLui, RGLUI, rpart, survey, RGL, RGLUI, RGLUI2, RGLUI3, RGLUI4, RGLUI5, RGLUI6, RGLUI7, RGLUI8, RGLUI9, RGLUI10, RGLUI11, RGLUI12, RGLUI13, RGLUI14, RGLUI15, RGLUI16, RGLUI17, RGLUI18, RGLUI19, RGLUI20, RGLUI21, RGLUI22, RGLUI23, RGLUI24, RGLUI25, RGLUI26, RGLUI27, RGLUI28, RGLUI29, RGLUI30, RGLUI31, RGLUI32, RGLUI33, RGLUI34, RGLUI35, RGLUI36, RGLUI37, RGLUI38, RGLUI39, RGLUI40, RGLUI41, RGLUI42, RGLUI43, RGLUI44, RGLUI45, RGLUI46, RGLUI47, RGLUI48, RGLUI49, RGLUI50, RGLUI51, RGLUI52, RGLUI53, RGLUI54, RGLUI55, RGLUI56, RGLUI57, RGLUI58, RGLUI59, RGLUI60, RGLUI61, RGLUI62, RGLUI63, RGLUI64, RGLUI65, RGLUI66, RGLUI67, RGLUI68, RGLUI69, RGLUI70, RGLUI71, RGLUI72, RGLUI73, RGLUI74, RGLUI75, RGLUI76, RGLUI77, RGLUI78, RGLUI79, RGLUI80, RGLUI81, RGLUI82, RGLUI83, RGLUI84, RGLUI85, RGLUI86, RGLUI87, RGLUI88, RGLUI89, RGLUI90, RGLUI91, RGLUI92, RGLUI93, RGLUI94, RGLUI95, RGLUI96, RGLUI97, RGLUI98, RGLUI99, RGLUI100, RGLUI101, 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Indicadores

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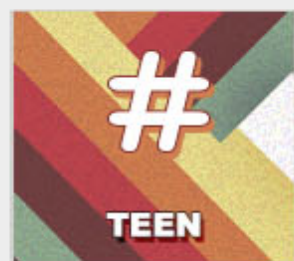
## Pesquisa de Orçamentos Familiares

### 2008-2009

- Análise do Consumo Alimentar Pessoal no Brasil
- Antropometria e estado nutricional de crianças, adolescentes e adultos no Brasil
- Aquisição alimentar domiciliar *per capita*: Brasil e Grandes Regiões
- Avaliação nutricional da disponibilidade domiciliar de alimentos no Brasil
- Despesas, rendimentos e condições de vida
- **Perfil das Despesas no Brasil: indicadores selecionados**
- Tabelas de Composição Nutricional dos Alimentos Consumidos no Brasil
- Tabela de Medidas Referidas para os Alimentos Consumidos no Brasil

### Análise dos dados da POF 2008-2009 utilizando o software R

- <http://www.asdfree.com/search/label/pesquisa%20de%20orcamentos%20familiares%20%28pof%29>





# Pesquisa de Orçamentos Familiares (POF)

*Contributed by Dr. Djalma Pessoa <[pessoad@gmail.com](mailto:pessoad@gmail.com)>*

The Pesquisa de Orçamentos Familiares is Brazil's national survey of household budgets.

- One table of survey responses per sampled household. Additional tables, many containing one record per expenditure.
- A complex sample survey designed to generalize to the civilian population of Brazil.
- Released at irregular intervals, with only 2002-2003 and 2008-2009 microdata available.
- Administered by the [Instituto Brasileiro de Geografia e Estatística](#).



# Vamos praticar?

**1º passo:** leitura de dados

**2º passo:** criação do objeto de desenho

**3º passo:** análise de dados



Aula 5 - Análise  
de Dados  
Amostrais  
Complexos PO...