

Survey Research 101

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Reasons for Surveys

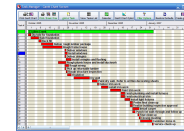
- **Description** : Determine the proportion of science teachers that used computers for instruction.
- **Hypothesis testing**: Students athletes training in their home states are less likely to report stress related disorders than students athletes training outside of their home states.
- **Needs assessment**: What type of professional training would math teachers be more interested in participating?
- **Evaluation**: Does the new science program high school X motivate the students to take more advanced science classes?
- **Longitudinal assessment**: Do high school students experience an increased positive view of mathematics from their freshman to senior years?

Overview of Survey Process

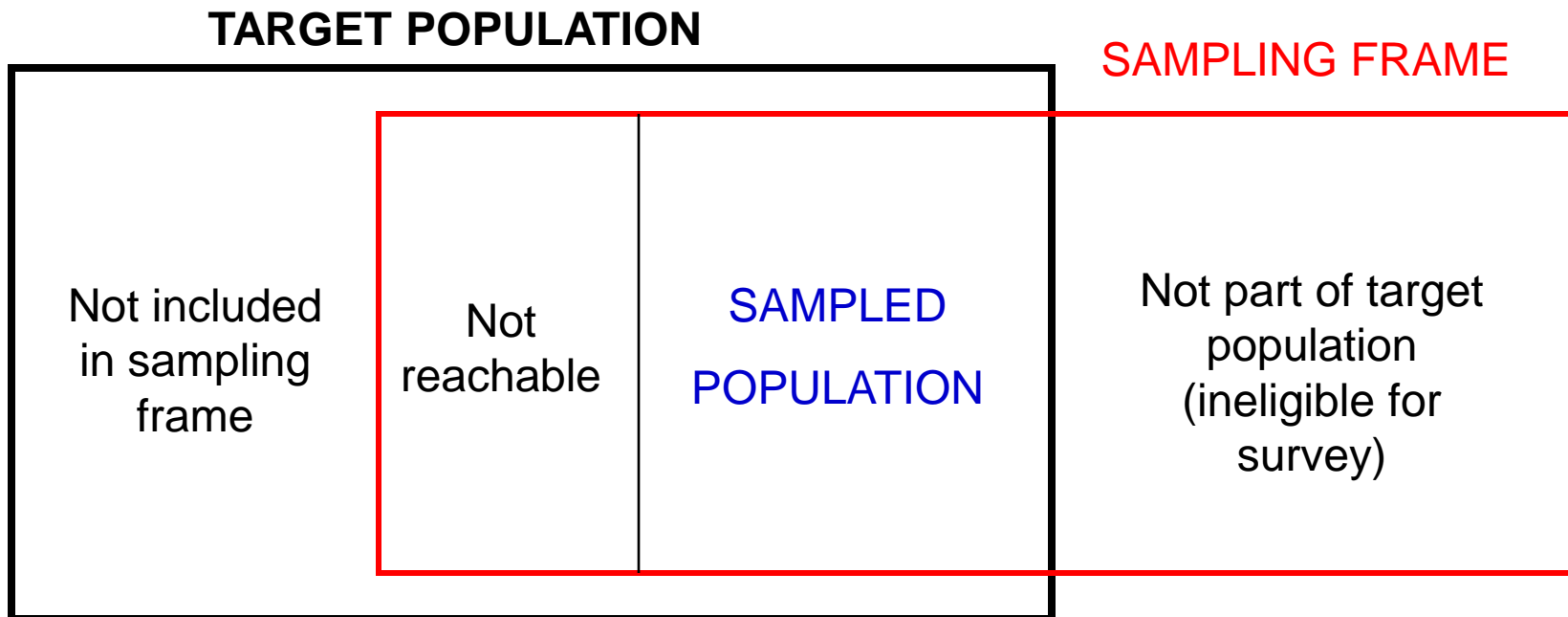
1. Preliminary planning
2. Questionnaire design
3. Pretesting
4. Survey implementation
5. Data coding, data-file construction
6. Data analysis
7. Report

Considerations for Survey Planning

1. Goals (*why*)
2. Survey design (*who, what, when, where, how*)
 - Population and sample (*who*)
 - Sample design
 - Method (*what, where, how*)
 - Timeline (*when*) and budget (*how*)
3. Survey integrity (beware of sources of bias)
4. Survey project team
5. Products



Relationship between target population, sampled population and sampling frame

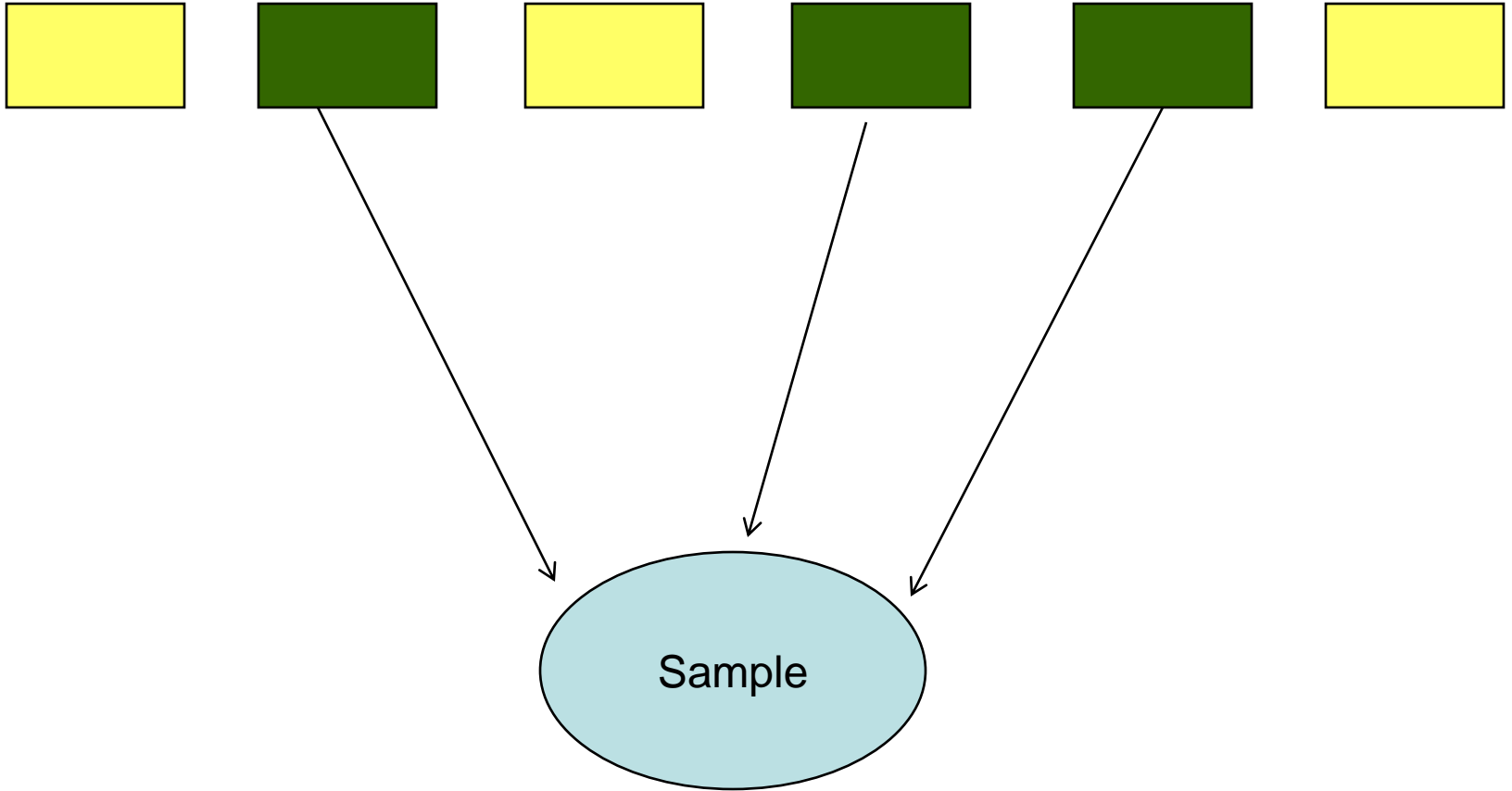


Sample Design

- Simple random sample
- Stratified sample
- Cluster sample
- Multistage sample

Simple Random Sample

Sampling
Frame:

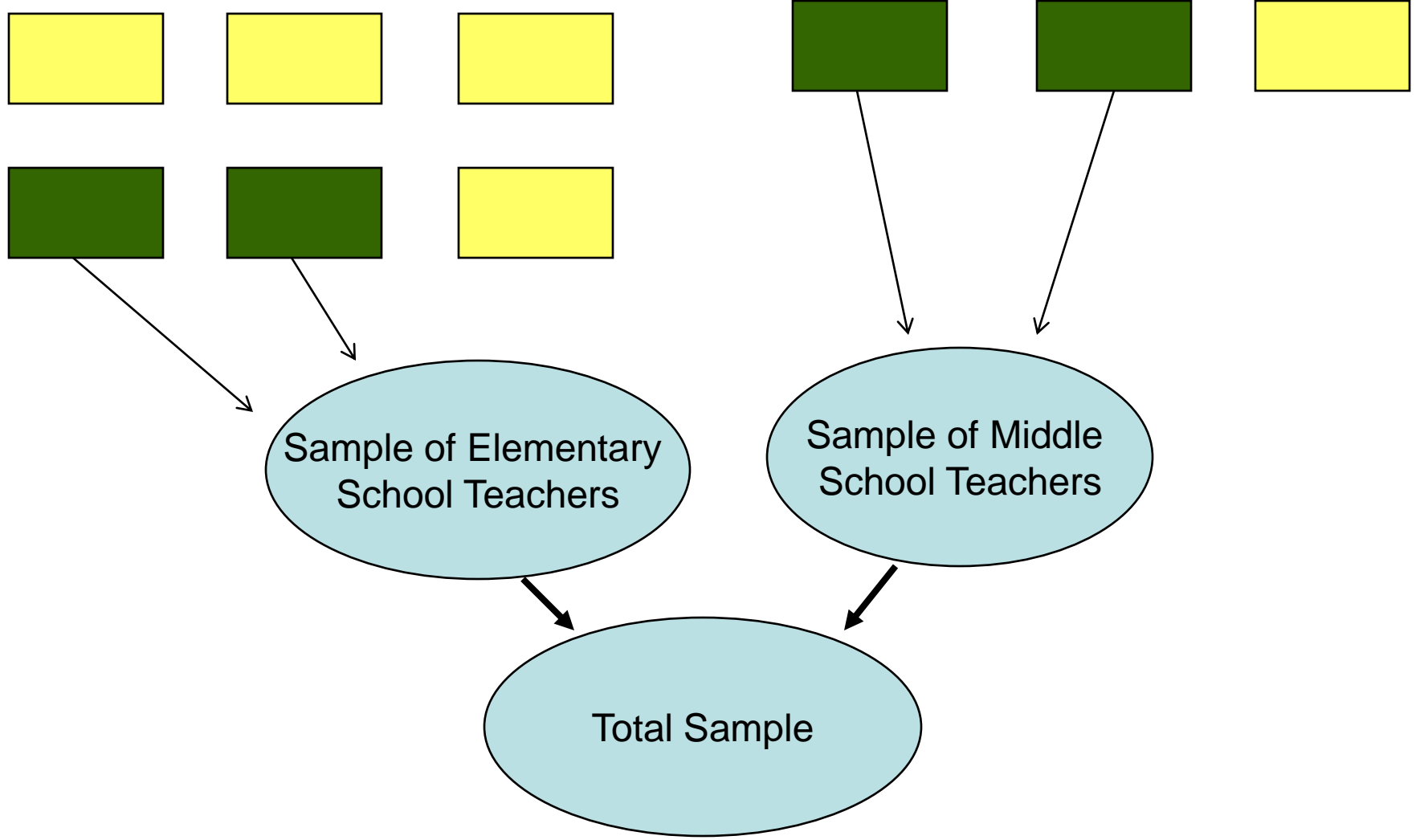


Sampling
Frame:

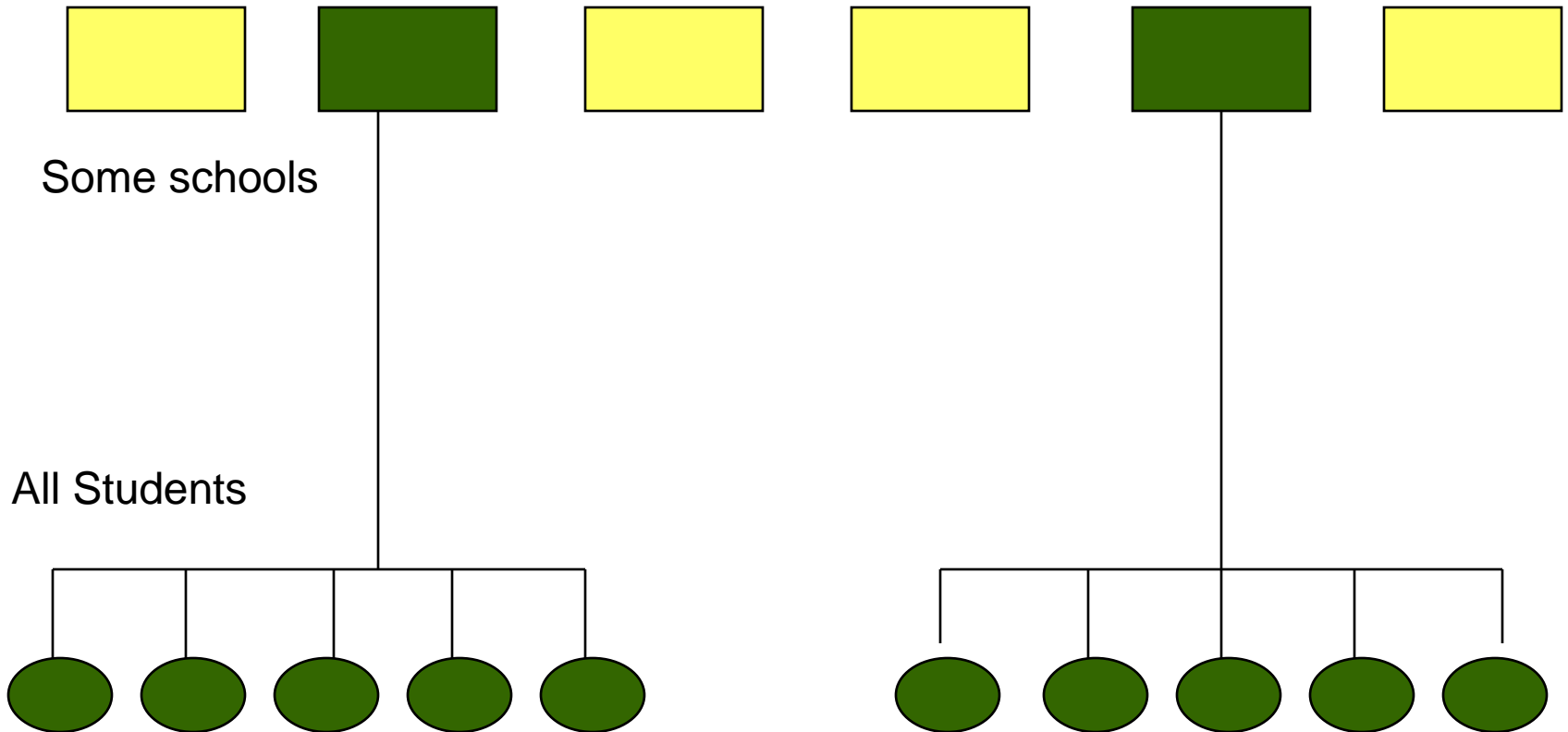
Stratified Sample

Elementary School Teachers

Middle School Teachers

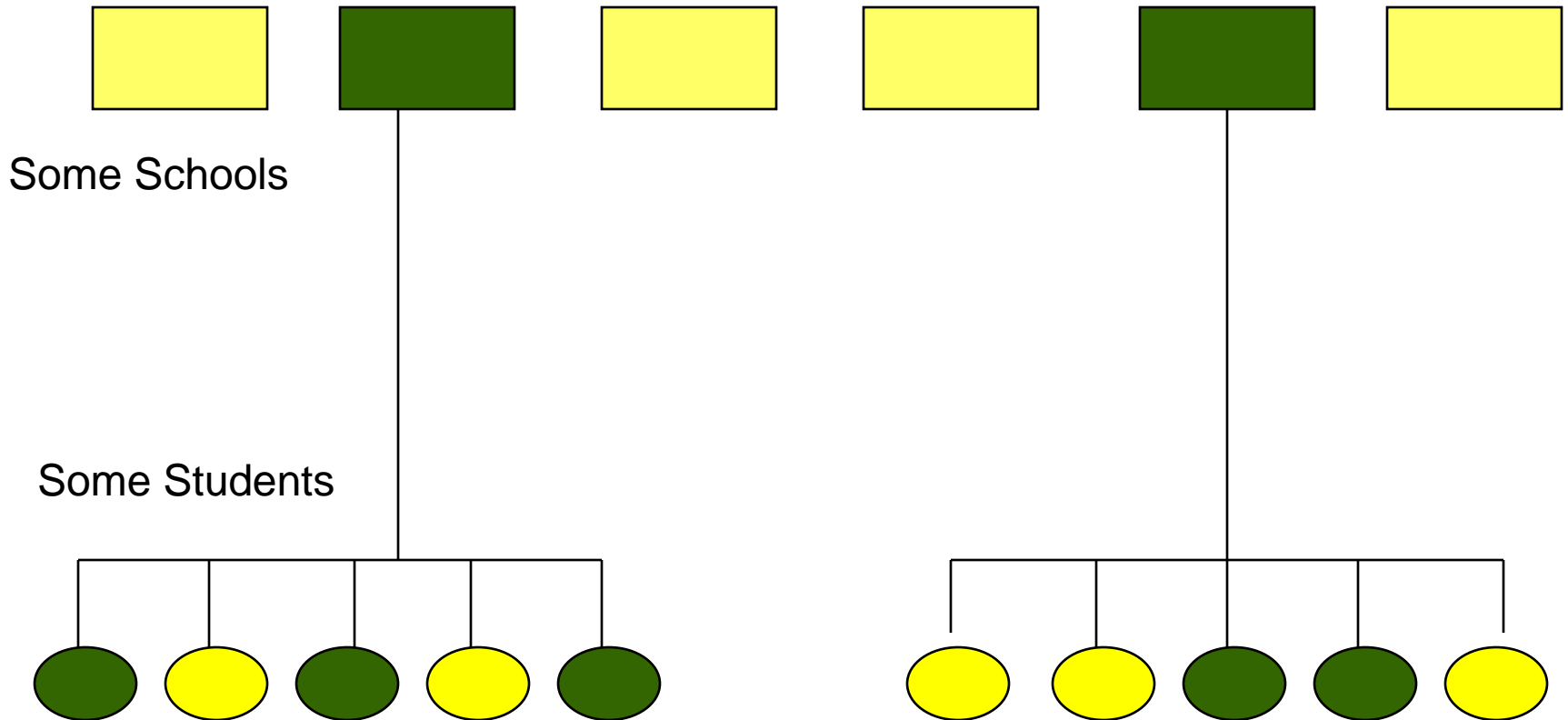


Cluster Sampling



e.g.) City blocks in census data, clusters of housing units in state and local governments.

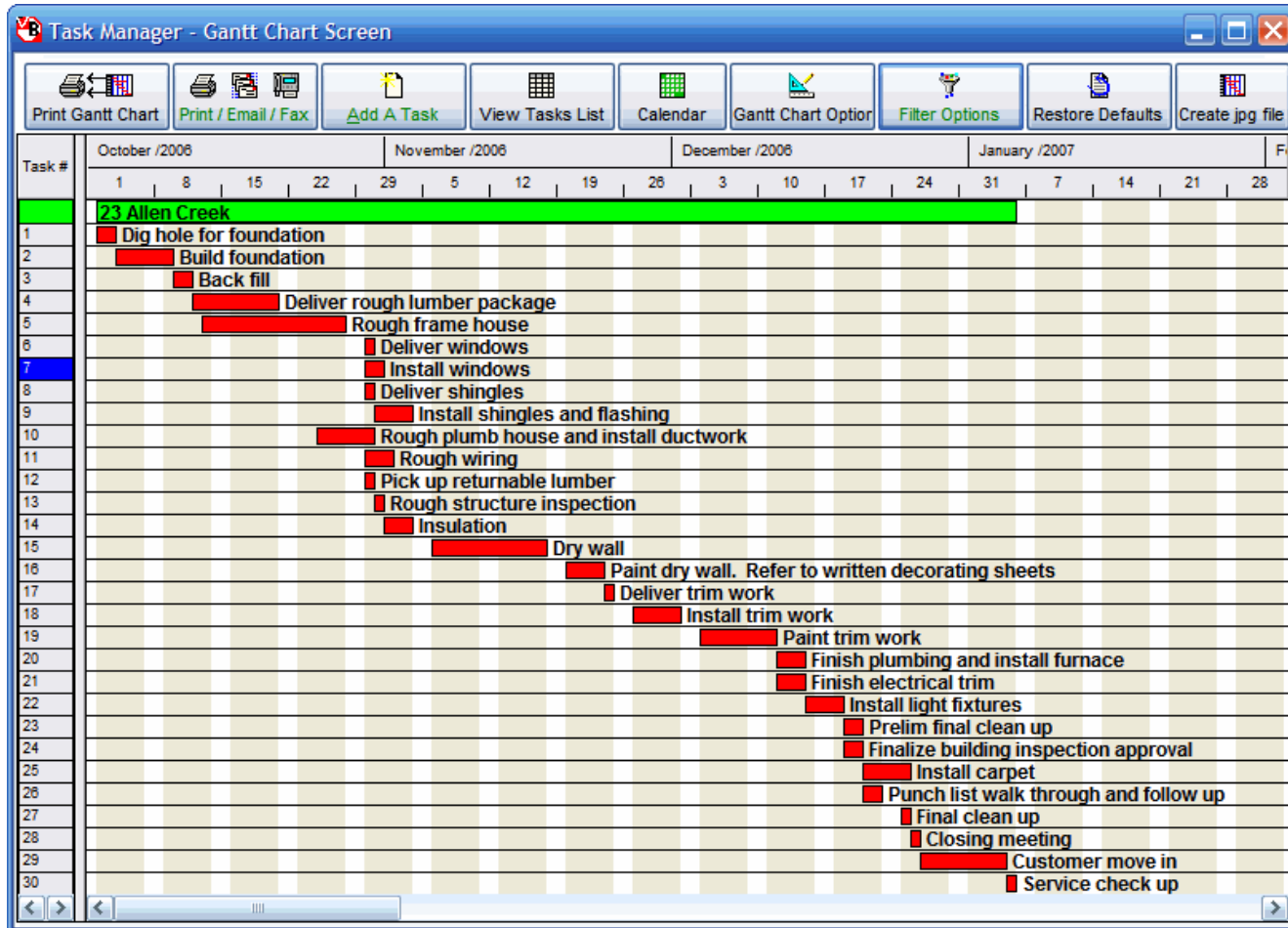
Multistage Sampling



Survey Methods

- Self-administered:
 - Mail
 - Internet
 - Group
- Interviewer-administered:
 - Phone
 - Face-to-face
- Mixed-mode

Gantt Chart





Sources of Bias

- Sample is not representative of population
 - Non-coverage (some persons of interest have no chance of being interviewed)
 - Non-response (segment of sample does not participate due to no contact or refusal)
- Poorly worded questions
- Social desirability bias
- Interviewer bias
- Item non-response
- Poor analysis

Assembling the survey team

- Principal investigator(s)
- Study coordinator
- Analyst
- Database technician
- Student assistants
- Advisory group

Ethical Issues in Survey Research

- Informing respondents
- Protecting respondents
 - Data safety
 - Respondent safety
- Protecting interviewers