Risk Factors for Farm Vehicle Public Road Crashes

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Objectives
- Identify driver, vehicle, and environmental risk factors associated with farm vehicle public road crashes in NC
- Compare crash farms and no-crash farms: descriptive and multivariate analysis

Background
- Public road crashes major public health problem
- Increasing demand for public road use with population growth
- Urbanization impacting how public roads are shared
- Crash report data: 300 farm vehicle crashes annually in NC

Farm vehicle crashes: rare event
- Official statistics may underestimate problem
- Vehicle Miles Traveled (VMT)
- Severity
- NC farmer input through focus groups and mail surveys
- Public road conflict and crashes are major safety problems

Methods
- Telephone survey, Winter 2003
- NC farm owners or operators from USDA database

- Two stages of sampling and interviews
- Eligibility
  - over 18 yrs
  - actively farming
  - drive farm vehicle on public roads
  - Crash: farm vehicle public road crash since 1992

- Initial Sample: 424 total
  - Stage 1: 208 no crash, 28 crash (12.9% prevalence)
  - Stage 2: 188 crash

Limitations
- Data from one state
- Recall and self-report
- Lack information on specifics of crashes
- Lack information on road conditions and geography of crash and non-crash farms

Conclusion
- Crash Farms: use hired help, use non-English speaking help, report younger drivers, more public road conflict, and higher non-farm public road use
- Non-Crash Farms: report older drivers, low farm income, higher perception of public road driving danger
- Farm and non-farm vehicle public road sharing, conditions, and driver behaviors contribute to crashes.