Concealed Carry Holster: The View through the Rearview Mirror

A statistical summary: 1996-2004 & Research Design Presentation

Fran Fuller, for the North Carolina Rifle and Pistol Association General Meeting – December 2, 2007

Research Question (Fran Fuller) – how many concealed carry holsters* are there out there, anyway, and who's in danger?

*The joke among everyone interested in CCH (Concealed Carry Handgun) Permitting in North Carolina is that there are so many places your permit makes you promise not to carry, that in real life, all you are permitted is a concealed holster, not a handgun at all.

NCRPA Annual Meeting
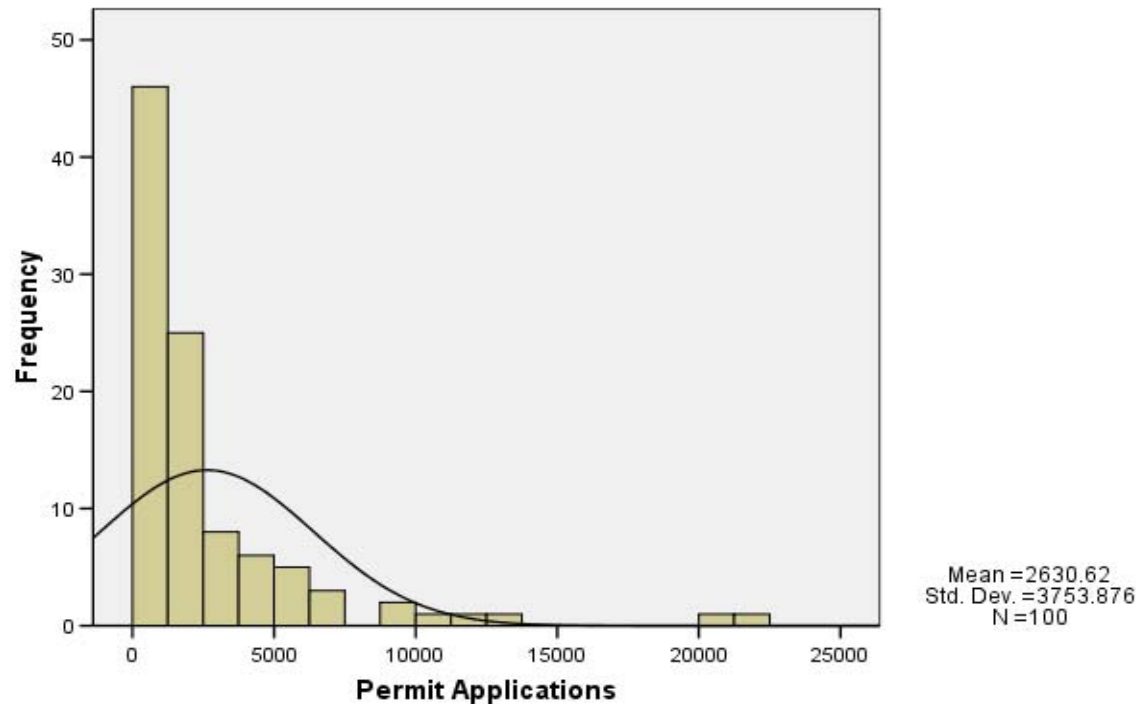
Sources --

- North Carolina Concealed Handgun Permit Statistics by County 12/01/1995 thru 9/30/2004. Accessed by FF on Nov 3, 2007, at http://sbi2.jus.state.nc.us/crp/public/other/chps.

- U.S. Census Bureau State & County QuickFacts, North Carolina. Accessed at http://quickfacts.census.gov/qfd/states/37/3701 by FF Nov 6 thru 15, 2007.

Permit applications by county

Permit Applications

Mean =2630.62
Std. Dev. =3753.876
N =100

Place:
100 – Tyrell 33
99 – Hyde 46
98 – Gates 93
97 – Perquimans 104
96 – Jones 108

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5 – Harnett 10,816
4 – Iredell 12,418
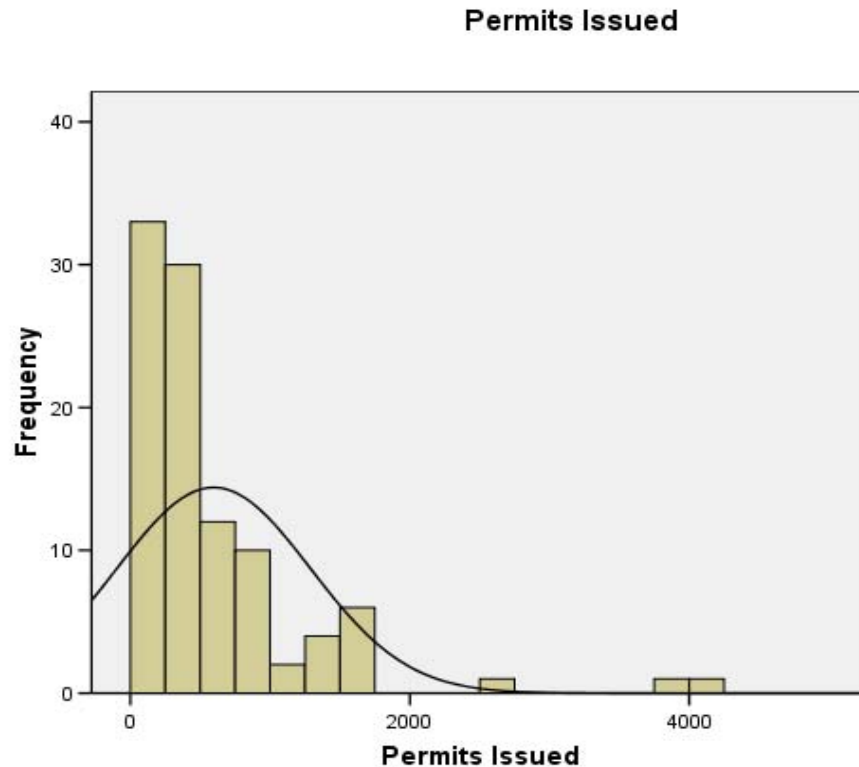3 – Mecklenburg 13,341
2 – Guilford 20,506
1 – Wake 21,805

1996-2004   NC Total = 59,597 (23%*)
Permits issued by county *Total as % of Apps

Permits Issued

Mean =595.77
Std. Dev. =692.421
N =100

Place:
100 – Tyrell 14 (42%)
99 – Hyde 18 (39%)
98 – Perquimans
                    42 (40%)
97 – Gates 46 (49%)
96 – Jones 48 (44%)
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5 – Forsyth 1,671 (18%)
4 – Cumberland 1,695 (26%)
3 – Guilford 2,573 (13%)
2 – Wake 3,859 (18%)
1 – Mecklenburg
                    4,207 (32%)

1996-2004

Permits denied

NC Total = 1,275 (0.5%*)

Permits Denied

Mean =12.74
Std. Dev. =25.232
N =100

Place:
100-86 with 0 denied: Craven, Wilkes, Scotland, Franklin, Person, Mitchell, Transylvania, Warren, Graham, Pasquotank, Clay, Alleghany, Chowan, & Gates
85 – Tyrell 1 (3.0%)
72 – Hyde 2 (4.3%)

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11 – Harnett 27 (0.2%)
10 – Richmond 36 (2.5%)
9 – Rowan 44 (0.5%)
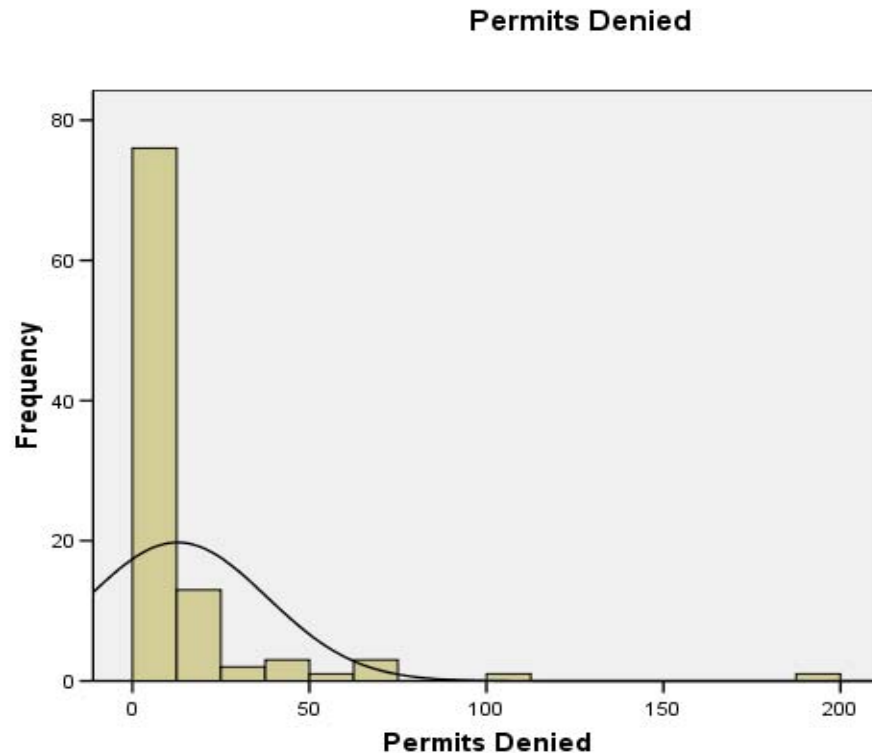8 – Davidson 45 (0.9%)
7 – Durham 48 (1.9%)
6 – Cumberland 51 (0.9%)
5 – Guilford 64 (.03%)
4 – Gaston 70 (1.1%)
3 – Buncombe 72 (1.1%)
2 – Wake 108 (0.5%)
1 – Mecklenburg 189 (1.4%)

1996-2004
Permits revoked

NC Total = 727 (1.2%*)

*Total revoked as % of permits issued

Place:

100-66 with 0 revoked: (34% of all counties had no permits revoked.)

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18 – Yadkin 7 (2.4%)

…

11 – Cabarrus 15 (1.0%)
10 – Cumberland 15 (0.9%)
9 – Vance 20 (5.8%)
8 – Rockingham 20 (2.0%)
7 – Mecklenburg 21 (0.5%)
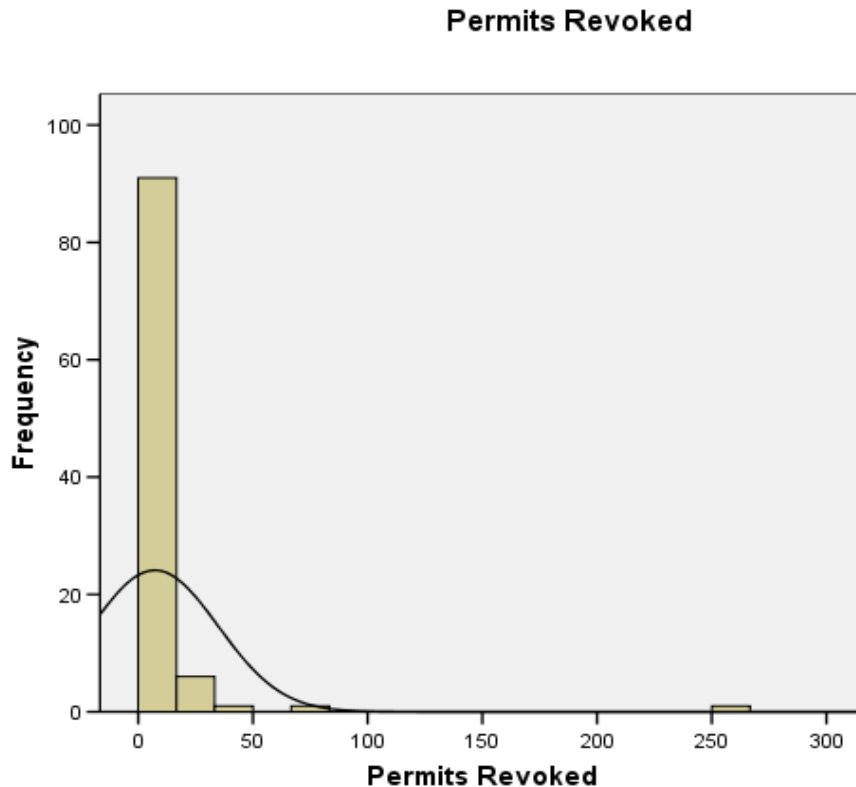6 – Johnston 24 (2.3%)
        5 – Gaston 25 (1.5%)
        4 – Wake 27 (0.7%)
      3 – Davidson 36 (2.7%)
2 – Guilford 76 (3.0%)
1 – Forsyth 264 (15.8%)

Permits Revoked

Mean =7.25
Std. Dev. =27.555
N =100

Permits revoked – in a bar graph

Permits Revoked
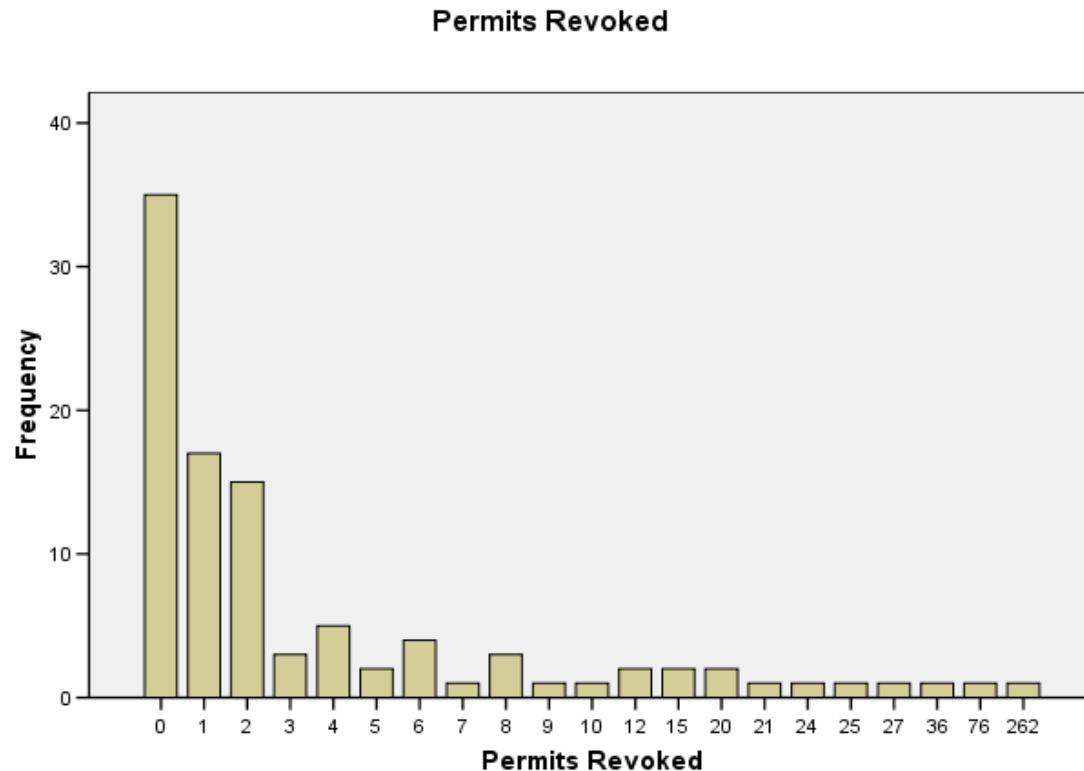
Place:

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18 – Yadkin 7

...

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6 – Johnston 24

5 – Gaston 25

4 – Wake 27

3 – Davidson 36

2 – Guilford 76

1 – Forsyth 264

Data reveals unexplained gap in the permitting process...

	263,102	Total NC CCH Permit Applications Out
–	59,597	Total NC CCH Permits Issued
–	1,274	Total NC CCH Permits Denied
=	232,231	Total NC CCH Applications Not Submitted

This means that **88%** of Total NC CCH Applications from 1996 to 2004 were NEVER SUBMITTED FOR PERMITTING

NC CCH Applications out, but never submitted, 1996-2004

Place:
27% Macon
30% Clay
31% Cherokee
39% Graham
41% Ashe
42% Alleghany
45% Mitchell, Northhampton
46% Hertford
47% Stokes
48% Madison
50% Davie, Chatham, Caswell Currituck
51% Gates, Warren, Hallifax
...

No Submits as % of Applications

Mean =66.55
Std. Dev. =15.371
N =100
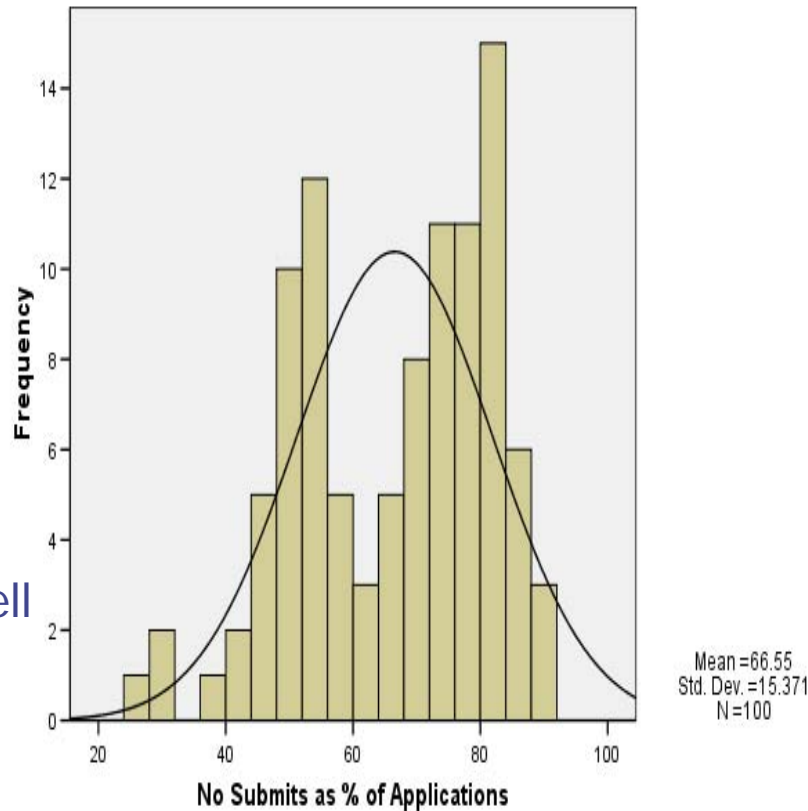
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81% Craven, Henderson
82% Columbus, Wake, Wayne, Wilson, Forsyth. Granville, Robeson, Duplin
83% Rowan, Pitt, Bertie
85% Yancey, Beaufort
87% Onslow, Scotland, Guilford, Iredell, Yancey
89% Anson
91% Pender, Harnett

Other ways to look at the numbers of CCH permit holders in North Carolina...

- 59,597 permits divided by 8,856,505 North Carolinians equals a per capita permitting rate of **1 permit per 148.6 people.**

- 59,597 permit holders divided by 3,132,013 NC households equals a permitting rate of 1.9 CCH permitted individuals to be divided among every 100 households, **or one permit for every 52 households**.
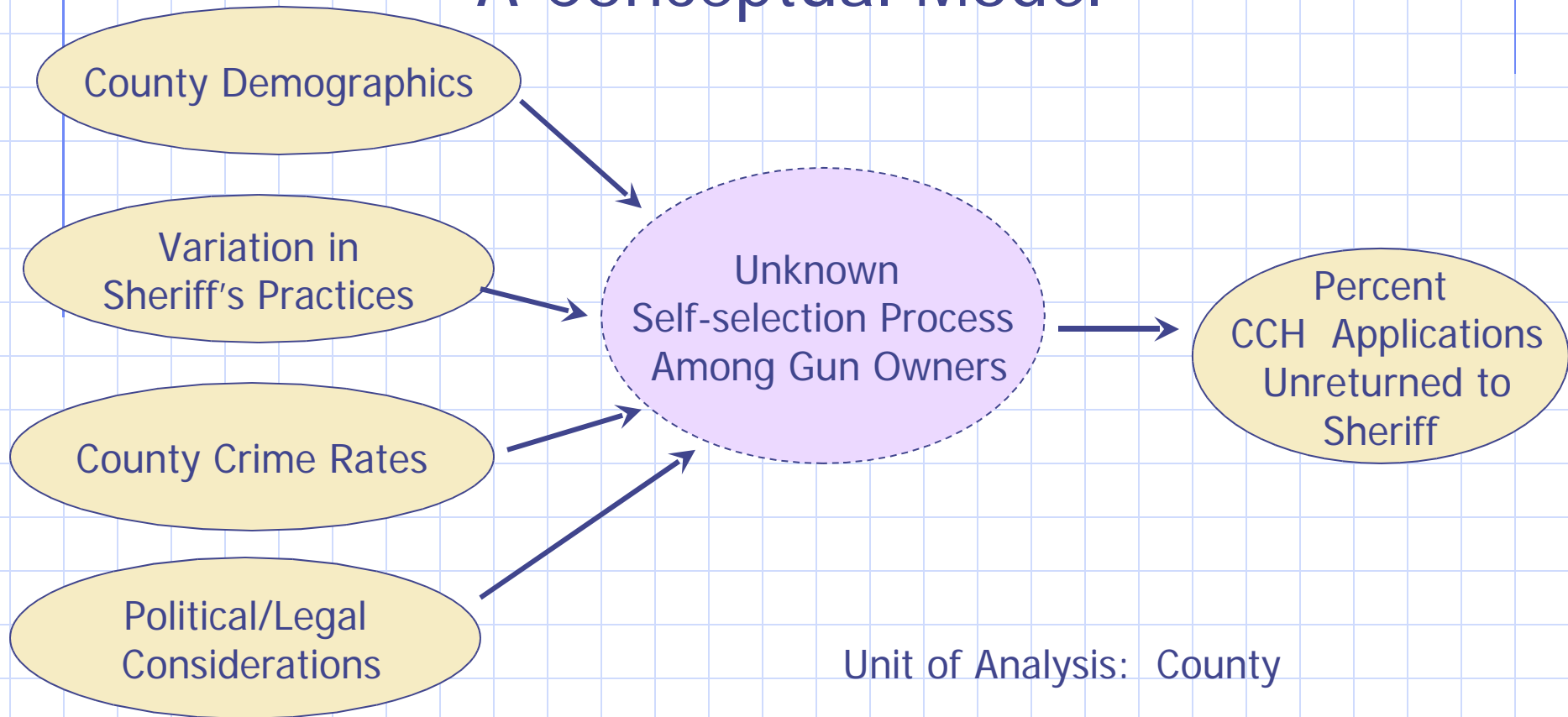
There is variation among the counties, but for every measure except size, the counties shift in their rank order...

So what is going on with our system?

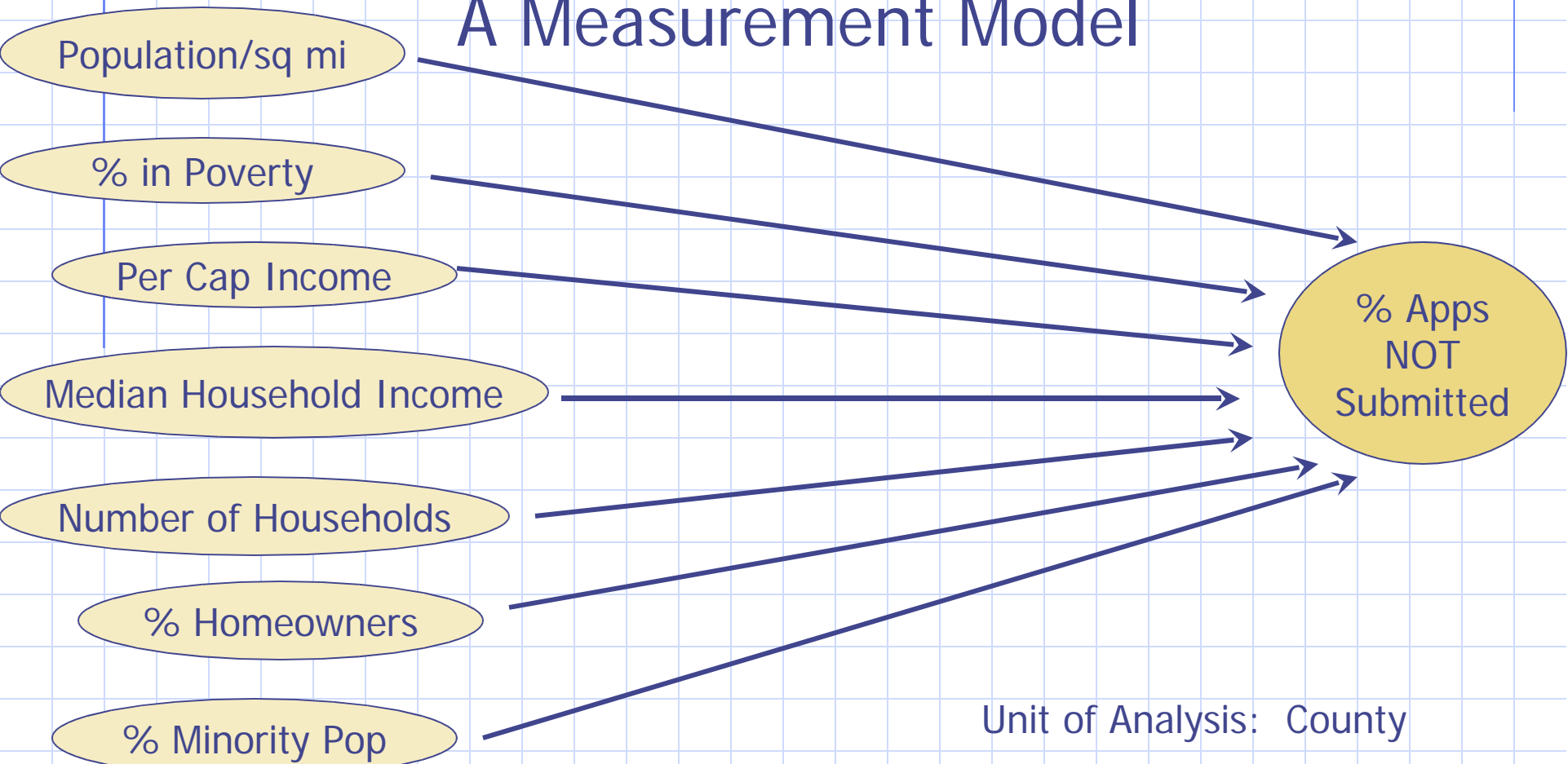# Research question (Fran Fuller): What might explain the variation in CCH applications submitted from county to county?

A Conceptual Model

County Demographics

Variation in Sheriff's Practices

County Crime Rates

Political/Legal Considerations

Unknown Self-selection Process Among Gun Owners

Percent CCH Applications Unreturned to Sheriff

Unit of Analysis: County

Research question (Fran Fuller): What might explain the variation in CCH applications submitted from county to county?

A Measurement Model

- Population/sq mi
- % in Poverty
- Per Cap Income
- Median Household Income
- Number of Households
- % Homeowners
- % Minority Pop

→ % Apps NOT Submitted

Unit of Analysis: County

Correlation Findings for the Association of No Submits with County Demographic Variables:

Pop per Sq Mi   **r=.273** (Sig. .006)

% in Poverty   N.S.

Per Capita Income   N.S.

Median Household Income N.S.

Number of Households **r= .293** (Sig. .003)

% Homeowners **r= -.417** (Sig. .000)

% Minority Population   **r= .209** (Sig. .037)

County Population   **r= .277** (Sig. .005)

Interpretation of the correlation findings:

- Any NC County's % of No-returns of CCH Applications to the Sheriff's Office has a modest tendency to rise in direct relationship to a rise in measured Population per Square Mile, Number of Households in the County, Total County Population, and as the Percentage of Minority Population rises in the County.

- The percentage of No-returns also rises when the percentage of Homeownership decreases.

Regression findings for the impact of NC County Demographics on No-returns of CCH Permit Applications to the Sheriff's Office

Population per Sq Mi   N.S.

% in Poverty   N.S.

Per Capita Income   N.S.

Median Household Income   N.S.

Number of Households   N.S.

% Homeowners **Beta = -.375** (Sig. .006)

% Minority Population   N.S.

F Statistic for the regression = 3.449 (Sig. .005)

R-square = .182

Interpretation of the regression findings:

- Among all the variables tested in the regression analysis, only % Homeowners showed a statistically significant predictive effect on the percentage of CCH Application Non-returns. The Beta of -.375 indicates a modest **tendency for Homeownership to decrease the number of CCH Application Non-returns**, controlling for the measurable, if statistically insignificant, effect of Population per Sq Mile, % in Poverty, Per Capita Income, Median Household Income, Number of Households, and % Minority Population.

- **The R-square of .182 indicates that only 18 percent of the variation in Non-returns is explained by County Demographics.**

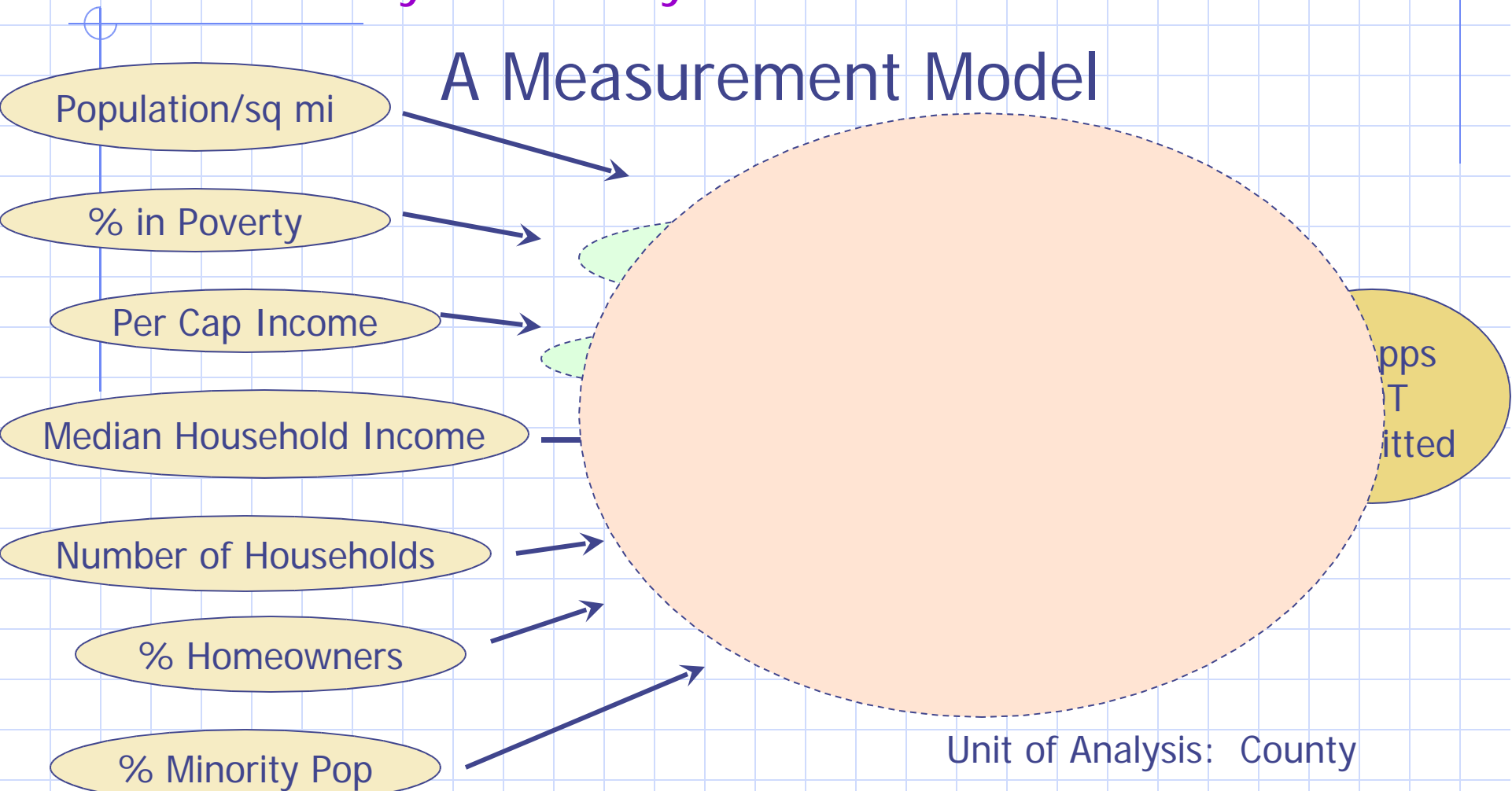NC County demographics leave **82%** of the variation in the Non-return of CCH Applications unexplained.

A fact of statistical analysis: A measurement model does not take into account the dreaded Rival Causal Factors. The R-square measures RCFs.

Research question (Fran Fuller): What might explain the variation in CCH applications submitted from county to county?

A Measurement Model

CFs

- Population/sq mi
- % in Poverty
- Per Cap Income
- Median Household Income
- Number of Households
- % Homeowners
- % Minority Pop

THE DREADED RCFs*

*RCF = Rival Causal Factors

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Unit of Analysis: County

Research question (Fran Fuller): What might explain the variation in CCH applications submitted from county to county?

A Measurement Model

- Population/sq mi
- % in Poverty
- Per Cap Income
- Median Household Income
- Number of Households
- % Homeowners
- % Minority Pop

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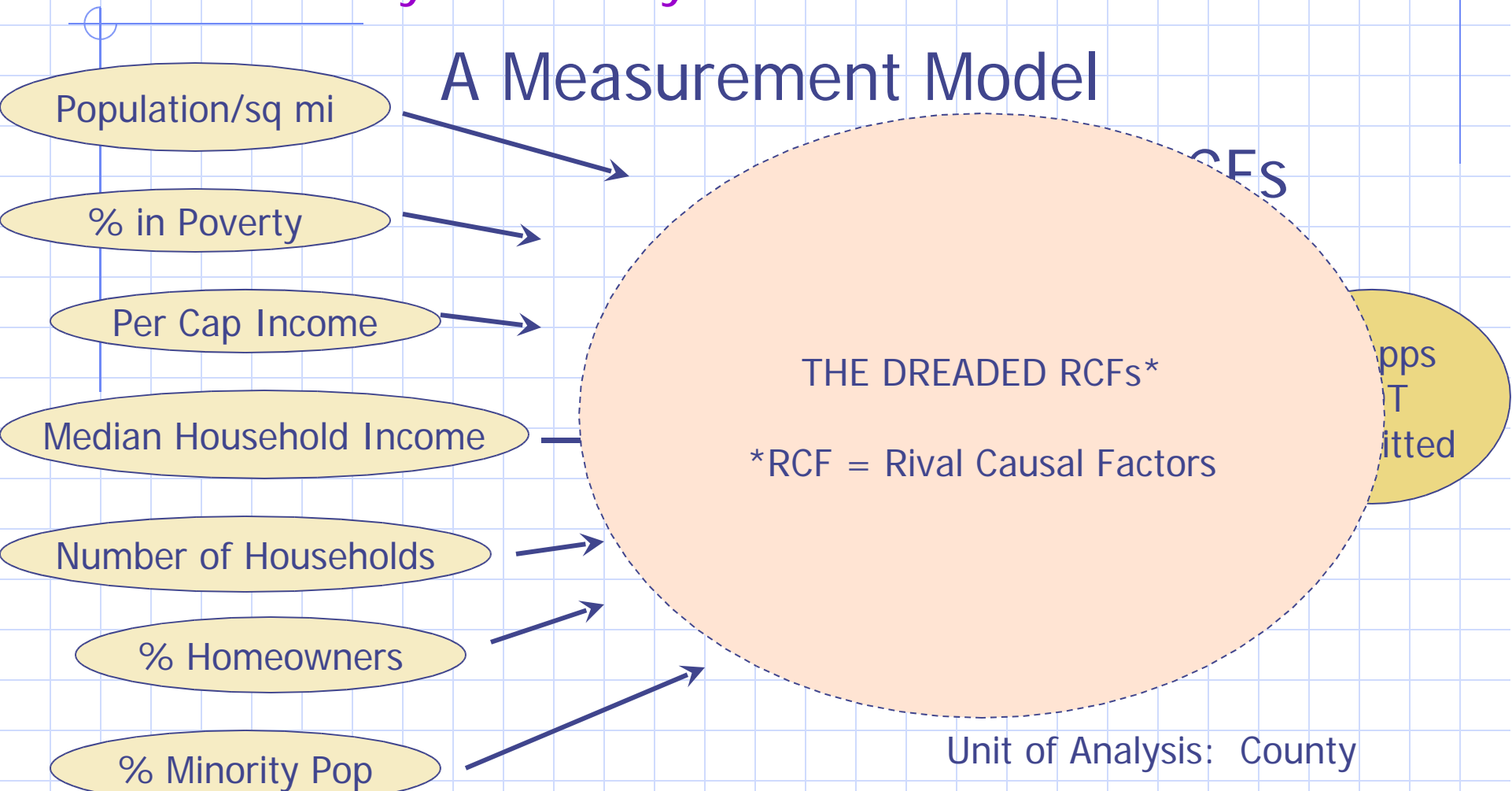
Unit of Analysis: County

NC gun owners who apply for CCH make their own assessment...

...of all the variables in their county, as well as their own situation.

Therefore, **knowing the criteria each gun owner uses in making their decisions** as to whether or not to go forward in the CCH permitting process at each step **would go a long way to gaining insight** into this currently unknown self-selection that goes on as gun owners across the State contact their local Sheriffs' Offices. **What do you think?**