

# Florida Interlock Program Driver Characteristics: Factors Predictive of Self- Selection & Compliance

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## 2 Primary Questions:

- Among those who are eligible, what type of driver chooses to install an interlock? *(26%)*
- Of this subset (those who install an interlock), what factors predict a higher likelihood of compliance and completion? *(82.4%)*

# Types of Predictive Factors

<b>Basic Personal Demographics</b>	Age, Gender, Ethnicity
<b>Prior Driving History</b> <i>(includes Licensing / Procedural Compliance)</i>	<ul style="list-style-type: none"><li>▪ Prior DUIs &amp; Test Refusals</li><li>▪ Suspensions for moving violations</li><li>▪ Failure to: Pay Tickets, Answer Summons, Comply with requirements for Traffic School and/or Alcohol Treatment</li></ul>
<b>Socio-economics</b> <i>(of Driver's Area of Residence)</i>	Education Attainment, Employment, Household Income, 'Urbanicity'

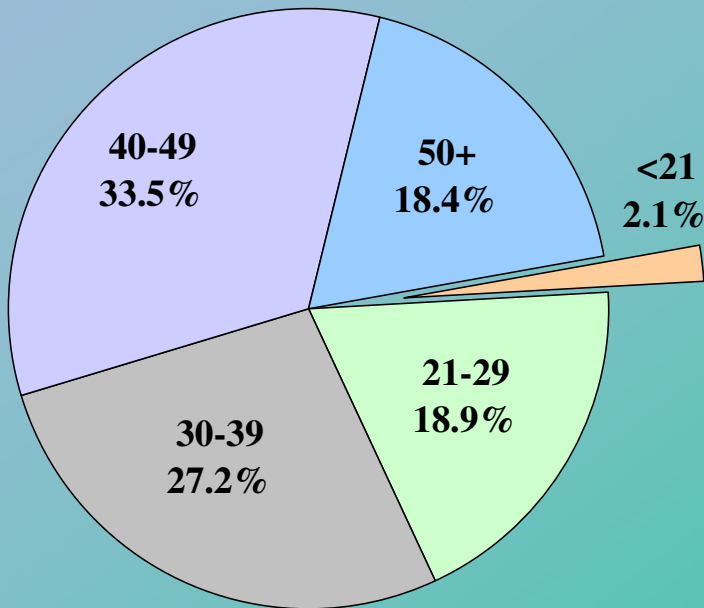
# Analytic Methods

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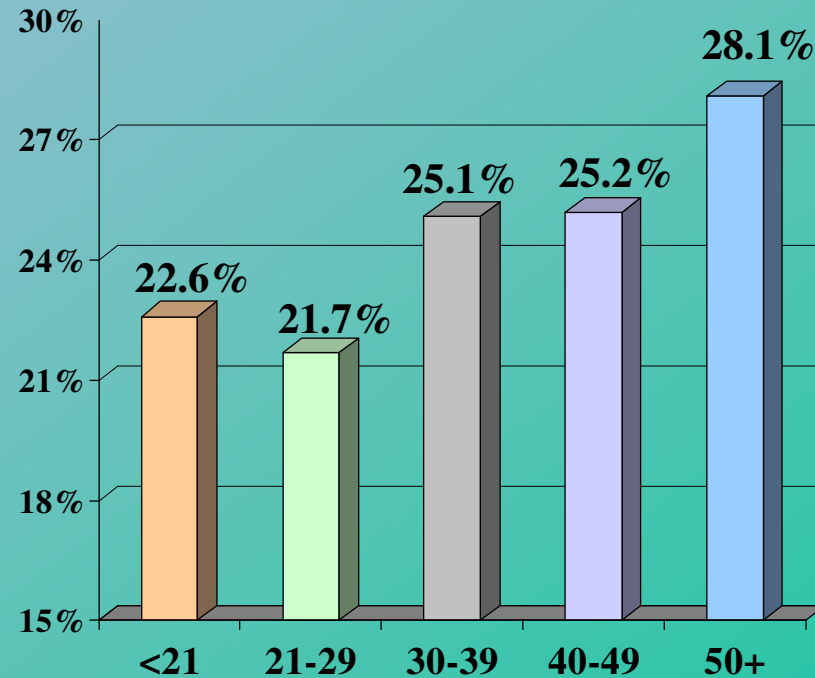
- **3 Logistic Regressions (3 outcome variables):**
  - of Total Eligible - Installed Interlock *vs.* Didn't Install
  - of Installed subgroup - BAC Test Violation *vs.* Not
  - of Installed subgroup - Dropped Out *vs.* Not
- **Forward Conditional Variable Selection**  
(only include/retain factors significant at  $p < .05$ )
- **2 models for each regression:**
  - predicting from Demographics & Driving Record only
  - same as above, *plus* 'residential SES' (imputed from ZipCode)

# Question #1: Who Chooses to Get an Interlock Installed? by Age

## Composition of All Those Eligible

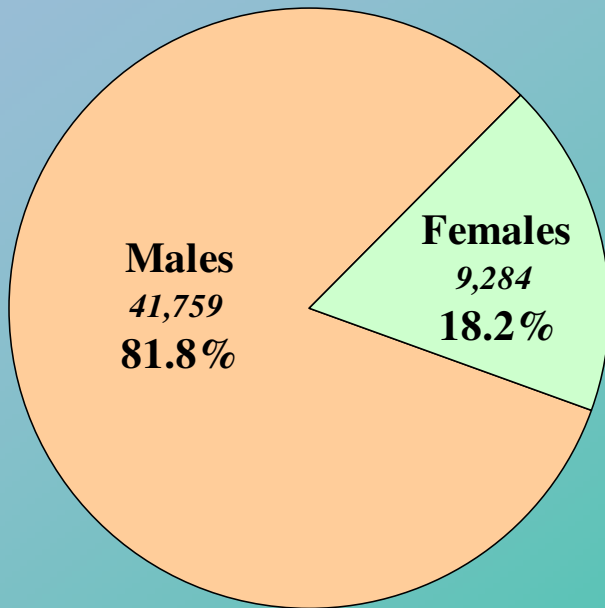


## Percent Installing

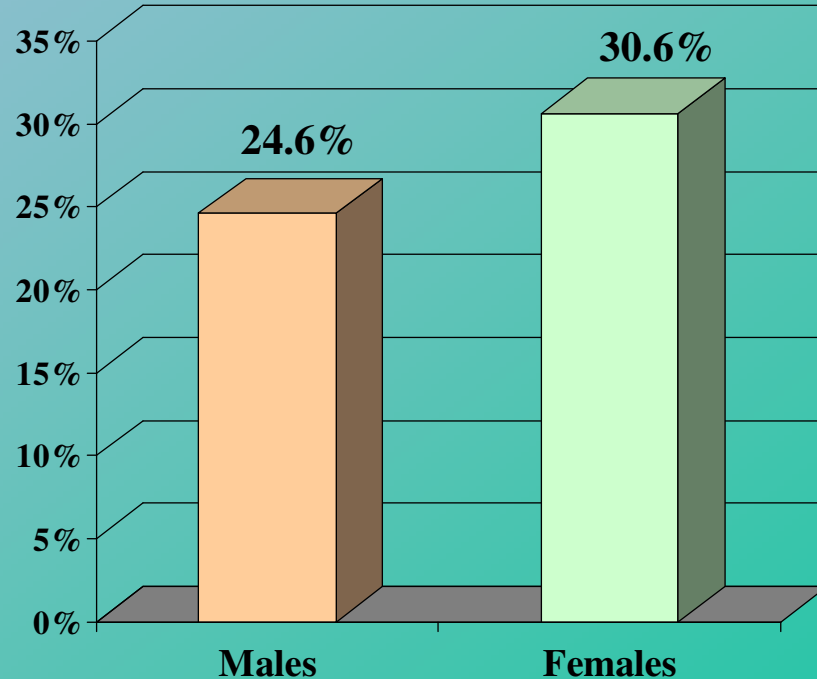


# Question #1: Who Chooses to Get an Interlock Installed? by Sex

## Composition of All Those Eligible

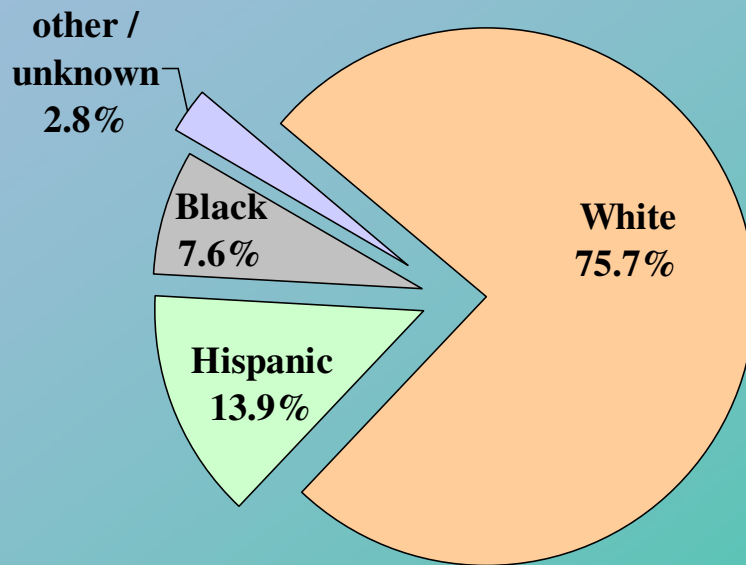


## Percent Installing

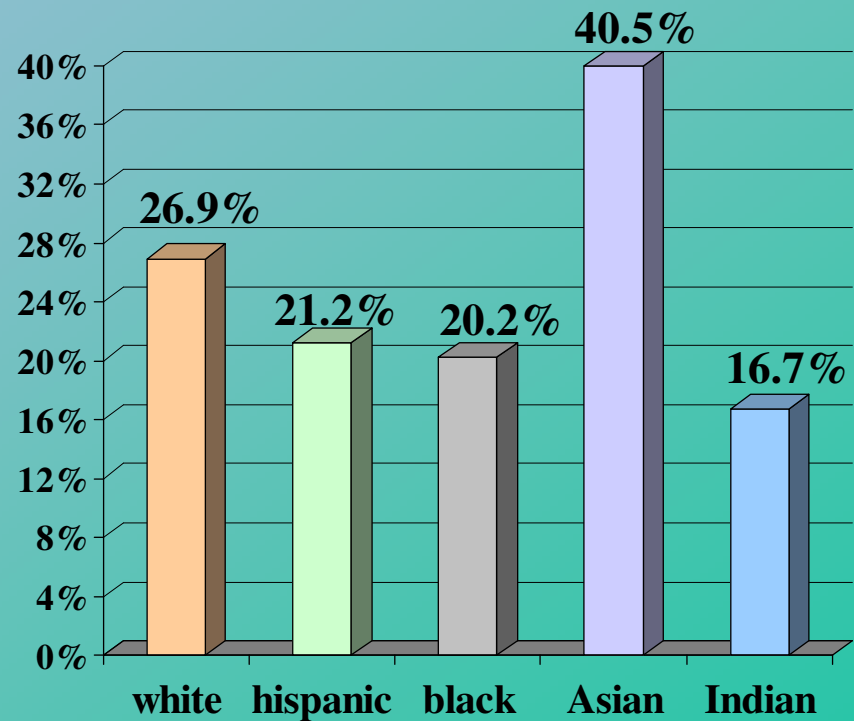


# Question #1: *Who Chooses to Get an Interlock Installed?* by Ethnicity

## Composition of All Those Eligible

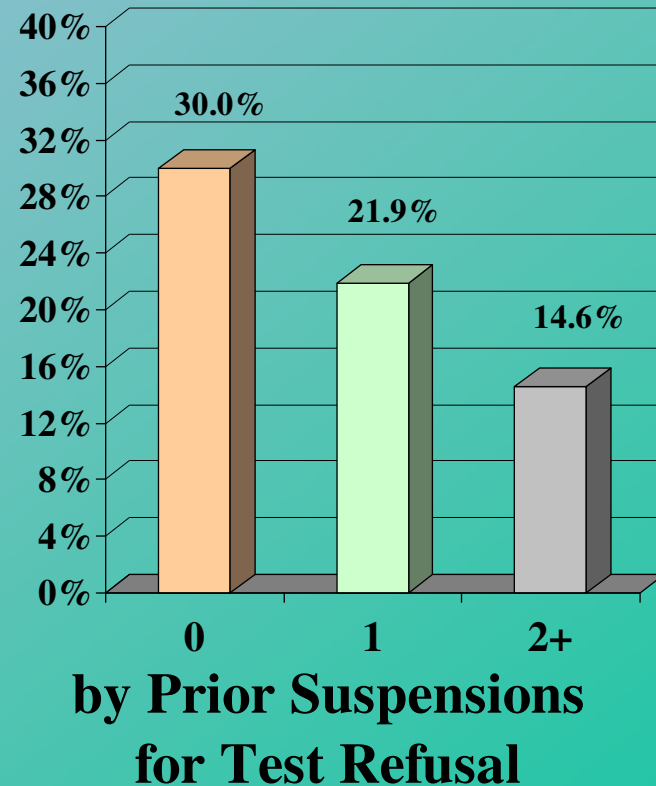
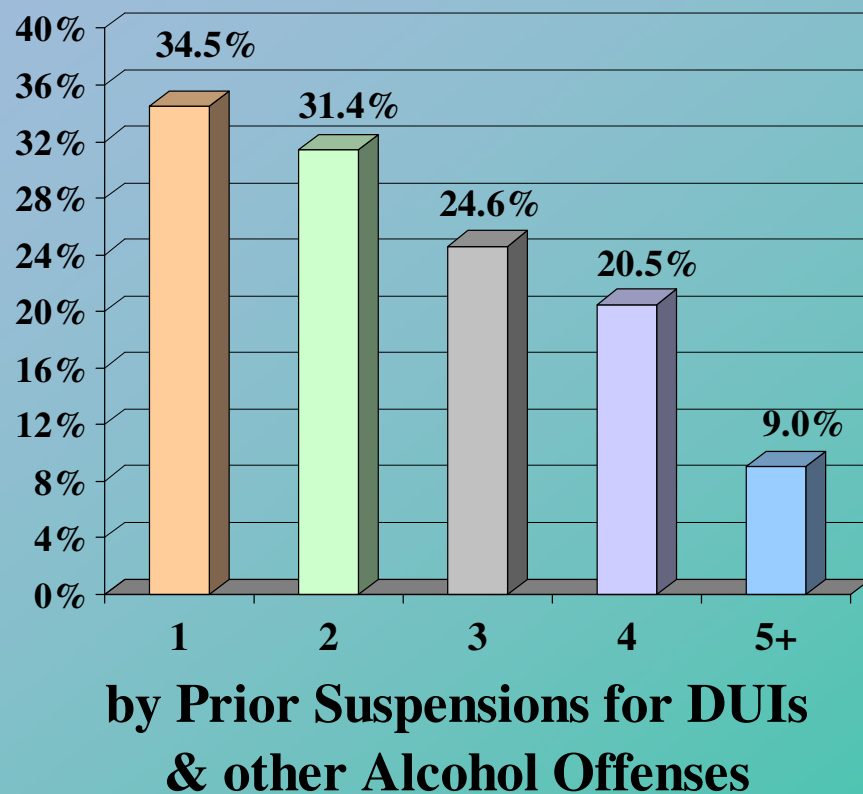


## Percent Installing



# Question #1: *Who Chooses to Get an Interlock Installed?* by Prior Offenses

Percent of Eligible Drivers Installing Interlock, by Priors



# Other Factors: Prior Driving Record / Licensing Procedural Compliance

<b>Crash Causing Serious Injury or Significant Property Damage</b> <i>(n=12,446)</i>	8.6% less
<b>Crash Causing Death</b> <i>(n=175)</i>	78.5% less
<b>Suspension, Habitual Traffic Offender</b> <i>(n=4,293)</i>	30.5% less
<b>Suspension, Points Accumulation</b> <i>(n=2,264)</i>	29.0% more
<b>Failure to Appear / Respond to Summons</b> <i>(n=4,658)</i>	67.0% less
<b>Failure to Pay Fines / Traffic Ticket</b> <i>(n=6,460)</i>	52.1% less
<b>Failure to Comply with Traffic School</b> <i>(n=394)</i>	74.3% less
<b>Failure to Complete Alcohol Treatment</b> <i>(n=758)</i>	92.8% less

## *Question #1, model 2:*

still predicting Self-Selection for Interlock Installation, but with imputed SES measures factored in

**College Graduates** ( $p=.010$ )

**Unemployment Rate** ( $p=.015$ )

**Low Income Households <25k / Poverty Rates** ( $p=.011$ )

### ***NOTABLE CHANGES IN OTHER PREDICTORS:***

➤ **Sex effect no longer significant** ( $p=.156$ )

➤ **Ethnicity effect dampened for Blacks and Hispanics**  
(from 30% less likely, to 24% less likely)

➤ **Ethnicity effect augmented slightly for Asians**  
(from 72% more likely, to 81% more likely)

# Question #2a: *What factors predict Interlock Violations?*

## DEMOGRAPHICS

- Sex not significant ( $p=.150$ )
- Age: younger = more likely, older = less ( $p=.027$ )  
(general monotonic relationship)
- Blacks = 23.6% more likely than whites ( $p=.035$ )
- Hispanics = 55.8% less likely than whites ( $<.001$ )

## PRIOR DRIVING RECORD

- Prior DUIs = 6.6% less likely per prior ( $p=.011$ )
- Prior Refusals = 16.0% less likely per prior ( $p<.001$ )
- Habitual Traffic Offender = 34.8% more likely ( $p=.016$ )

# Question #2a: *What factors predict Interlock Violations?* with SES

## SES of Driver's Neighborhood (imputed for group)

- More High School Graduates in zipcode = *more* likely to violate
- Higher Median Income of zipcode = *more* likely to violate
- Higher Employment rate in zipcode = *more* likely to violate
- Higher proportion urban area = *less* likely to violate

## DEMOGRAPHICS

- Age effect is no longer significant; (Sex still not)
- Blacks no longer any more likely than whites
- Hispanic effect (55.8% less likely) remains unchanged

## PRIOR DRIVING RECORD – *no change*

- Prior DUIs = 6.6% less likely per prior ( $p=.011$ )
- Prior Refusals = 16.0% less likely per prior ( $p<.001$ )
- Habitual Traffic Offender = 34.8% more likely ( $p=.016$ )

# Question #2b: *What factors predict Interlock Drop-Out?* (includes some violators)

## DEMOGRAPHICS

- Sex not significant ( $p=.253$ )
- Age: above 50 years = less likely ( $p=.018$ )
- Blacks = 47.4% more likely than whites ( $p=.034$ )
- *Hispanics – no effect* ( $p<.656$ )

## PRIOR DRIVING RECORD

- (*Prior Refusals, HTOs not significant this time*)
- Prior DUIs = 20.1% more likely per prior ( $p<.001$ )
- Failure to Pay Fines / Tickets = 35.3% more likely ( $p=.002$ )
- Failure to Appear (Summons) = 68.3% more likely ( $p=.044$ )

**NOTE:** inclusion of SES factors makes no difference

# *Conclusions & Implications*

- **Other studies of recidivism risk / correlates:**
  - **prior driving offenses of all types**
  - **males; 30-49 years; ethnic groups**
  - **SES factors**, which partially correlate with demographics
- **Those who install Interlocks are different, and likely have a lower a priori risk of recidivism to begin with**
- **Those who do go on Interlock, but then violate, fail to comply, or drop-out... are also different from those who complete, and are likely at a particularly high risk of future recidivism**
- **Implications for Screening / Promotion / Mandating?**
- **Implications for Evaluation & Analysis (e.g., comparing post-Interlock Recidivism with non-Interlock offenders)?**