# Forensic neuropsychology:

## A national survey of practitioner training and experience

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# What is forensic neuropsychology?

- Definition

- Rapid development
  - Civil versus criminal

- Next steps
  - Legal questions
  - Training
  - Practice and challenges

# Method

- Electronic survey
  - 500 NAN members
  - 672 AACN members

- Two sections
  - Demographics and neuropsychological training
  - Forensic experience, training, and practice

- Since 2005

# Sample

**Age**

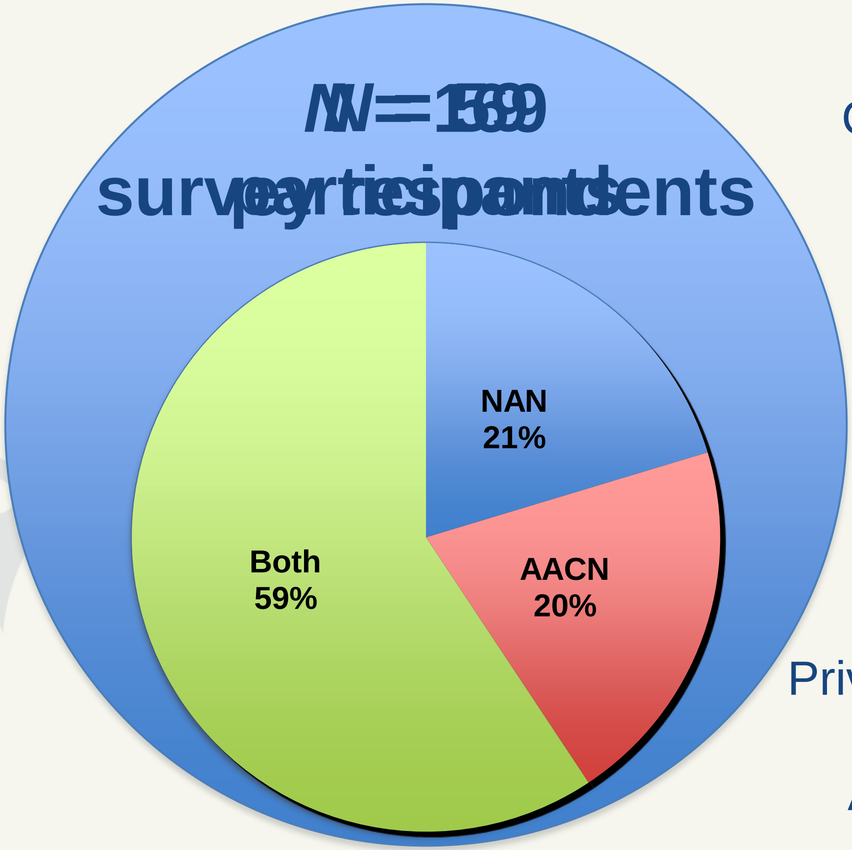
Range = 33-71 years
$M_{years}$ = 53.53
*SD* = 9.41

**Race/ethnicity***

Caucasian: 57 (97%)
Hispanic: 2 (3%)
Other: 2 (3%)

*N* = 169
survey respondents

*N* = 59
participants



**Area of practice***

34 states and DC

Urban: 37 (63%)
Suburban: 28 (47%)
Rural: 11 (19%)

**Practice setting***

Private practice: 37 (63%)
Medical: 26 (44%)
Academic: 13 (22%)
Other: 6 (10%)

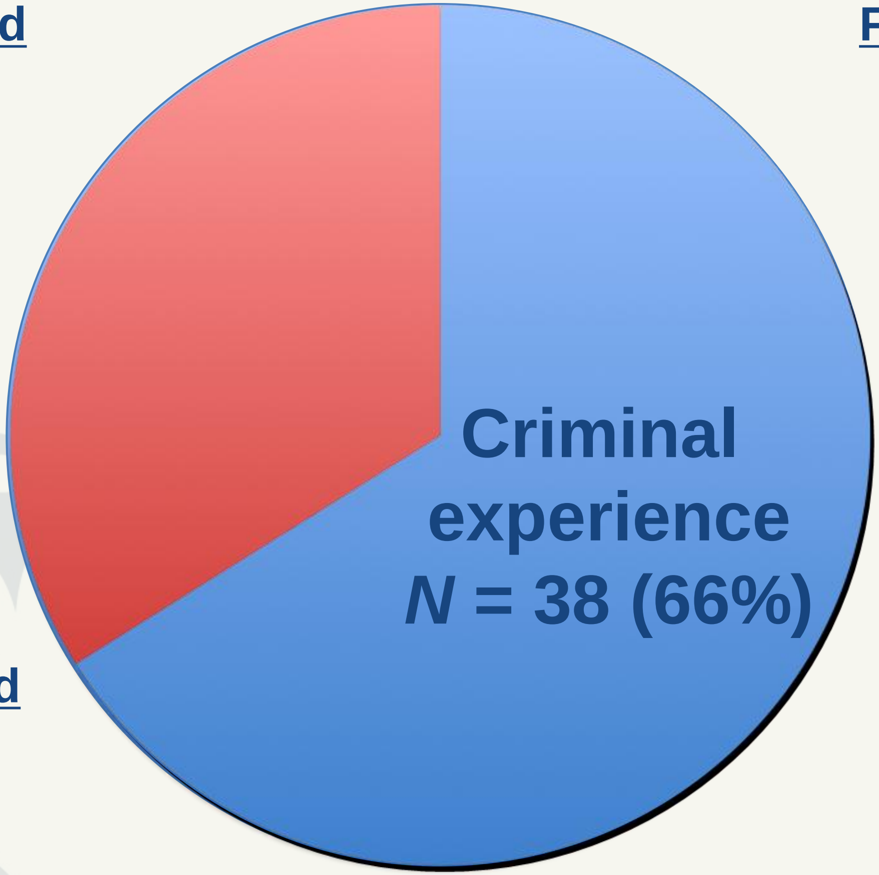
# Forensic experience

**Forensic caseload**

Range = 5-100%
$M_{percent}$ = 43.50
*SD* = 30.75

**Forensic experience**

Range = 2-35 years
$M_{years}$ = 18.24
*SD* = 9.31



**Criminal experience**
***N* = 38 (66%)**

**Civil forensic caseload**

Range = 1-100%
$M_{percent}$ = 51.25
*SD* = 37.27

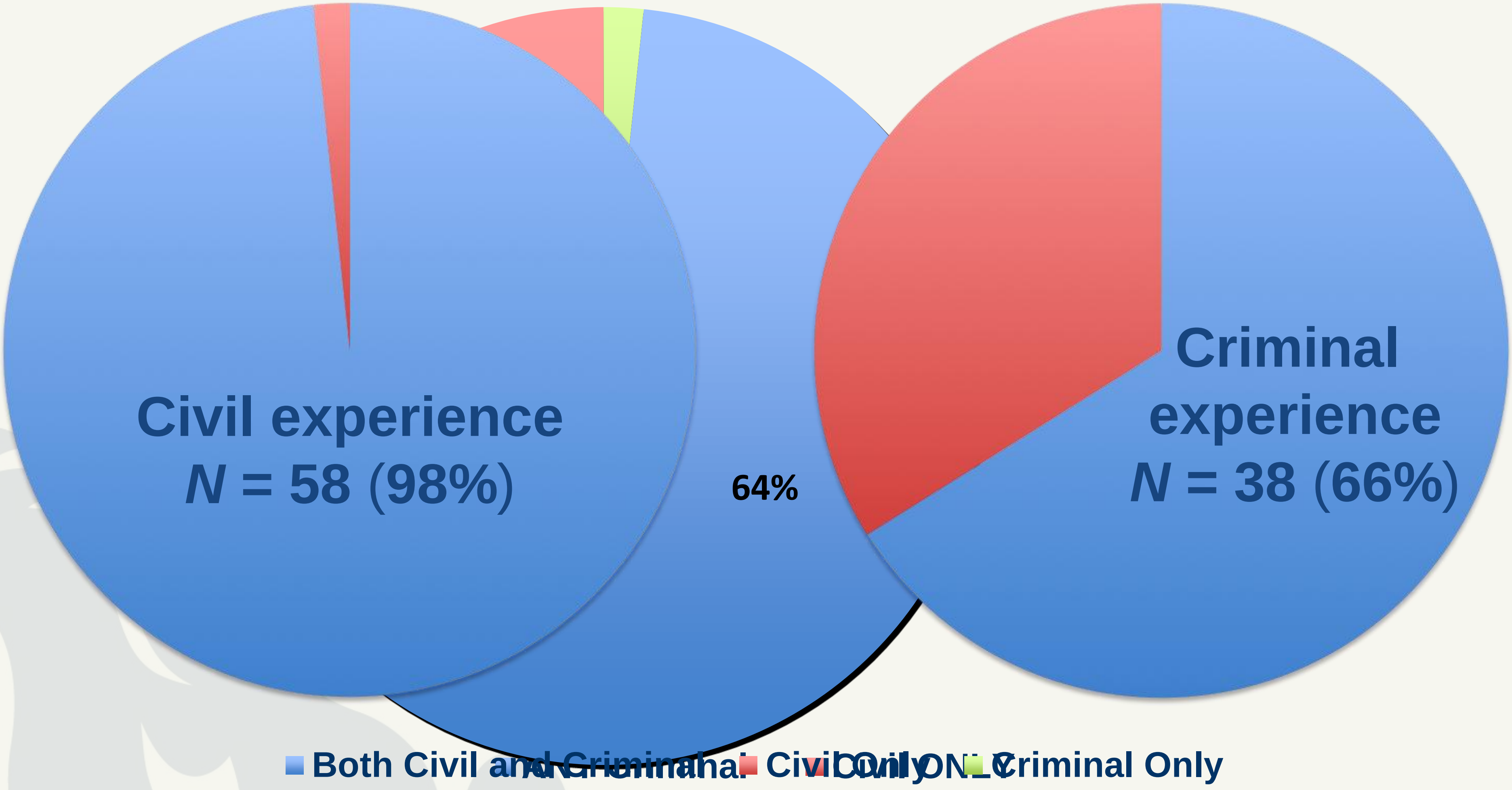
**Criminal forensic caseload**

Range = 1-100%
$M_{percent}$ = 24.39
*SD* = 31.32

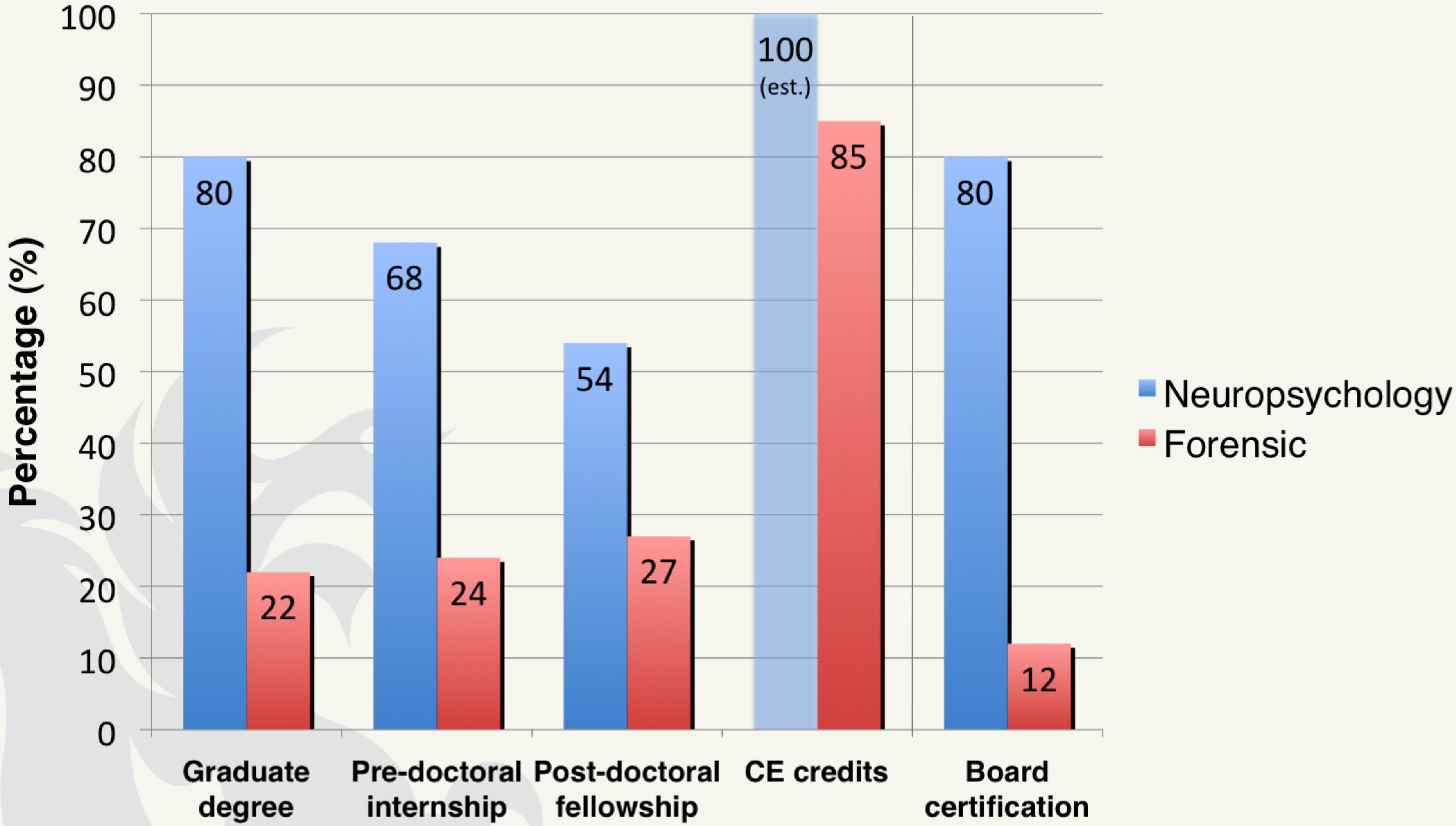
# Forensic experience

| | Forensic context | Prevalence (%) | Range | *M* | *SD* |
|---|---|---|---|---|---|
| **Personal injury** | Civil | 56 (97) | 1-100% | 55.21 | 36.06 |
| **Civil competency (overall)** | Civil | 42 (71) | 1-100% | 12.51 | 21.05 |
| **Criminal competency (overall)** | Criminal | 25 (42) | 1-100% | 37.37 | 38.45 |
| **Sentencing** | Criminal | 19 (32) | 1-100% | 27.83 | 36.60 |
| **Insanity** | Criminal | 14 (24) | 2-75% | 16.15 | 20.68 |
| **Child custody** | Civil | 4 (7) | 1-6% | 4.00 | 2.65 |

# Forensic experience groups



# Training



100
90
80
70
60
50
40
30
20
10
0
Percentage (%)
80
22
68
24
54
27
100
(est.)
85
80
12
Graduate degree
Pre-doctoral internship
Post-doctoral fellowship
CE credits
Board certification
Neuropsychology
Forensic

# Differences in training

- Neuropsychology BC > Forensic BC

| | ANY Criminal* | Civil ONLY |
|---|---|---|
| **Neuropsychology** | 26 | 15 |
| **Forensic** | 6 | 0 |

$\chi^2$ (1, $n$ = 32) = 12.50, $p < .001$, $\phi$ = 0.63 (large effect size)

# Differences in training

- Neuropsychology training > forensic

| | ANY Criminal | Civil ONLY |
|---|---|---|
| **Neuropsychology** | 23.18 (8.27) | 23.07 (8.69) |
| **Forensic** | 19.94 (9.97) | 18.70 (8.62) |

  - ANY criminal: $t(31) = 4.59$, $p < .001$, $r^2 = 0.40$ (large effect size)
  - Civil ONLY: $t(29) = 5.35$, $p < .001$, $r^2 = 0.50$ (large effect size)

- Mean years of experience among groups
  - Neuro: $t(49) = .16$, $p = .75$, $r^2 = .003$ (small effect size)
  - Forensic: $t(53) = .08$, $p = .47$, $r^2 = .01$ (small effect size)

# Jurisdictional differences

- ANY Criminal: *Frye > Daubert*

| Frye | Daubert |
|---|---|
| 22 | 10 |

$\chi^2$ (1, $n$ = 32) = 4.50, $p$ = .034, $\phi$ = 0.38 (medium effect size)

- Civil ONLY: *Frye ≈ Daubert*

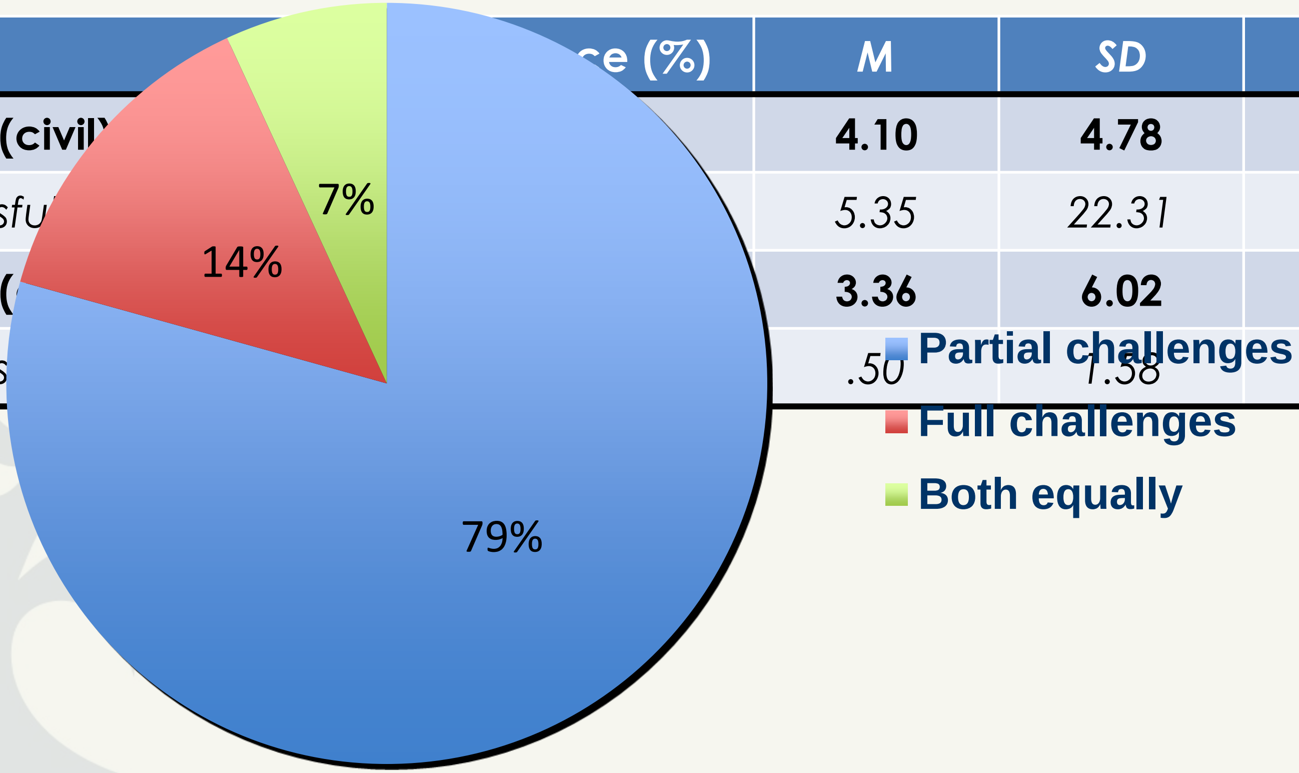
| Frye | Daubert |
|---|---|
| 10 | 7 |

$\chi^2$ (1, $n$ = 17) = .53, $p$ = .467, $\phi$ = 0.18 (small effect size)

# Challenges to admissibility

- 29 participants were aware of challenges to admissibility

| | ce (%) | *M* | *SD* | Range |
|---|---|---|---|---|
| **Challenges (civil** | | **4.10** | **4.78** | **0-20** |
| *Successfu* | | *5.35* | *22.31* | *0-100* |
| **Challenges (** | | **3.36** | **6.02** | **0-20** |
| *Success* | | *.50* | *1.58* | *0-5* |



**$\chi^2$ (2, $n$ = 29) = 27.79, $p$ < .001, $\phi$ = 0.98 (large effect size)**

# Implications

- Experience
  - Variability in experience
  - Civil vs. Criminal
  - Common practice?

- Training
  - Variability training, but some trends
  - Neuropsychological vs. forensic training
  - No differences between civil vs. criminal experience
  - Board certification

- Practice
  - Jurisdictional differences for criminal forensic experience
  - Challenges to admissibility

# Limitations

- Sample size
  - Response rate
  - 5% cutoff
- Generalizability
  - Board certification
  - Racial/ethnic minorities
  - Access issues
- Validity
  - Limited guidance around appropriate questions

# Conclusions

- Dramatic growth, and lingering questions

- Importance of common practices and training on admissibility

- Future directions
  - Larger, more representative surveys
  - Development of practice guidelines (and practice standards)
  - Training opportunities
  - Credentialing controversy
  - Jurisdictional differences
  - Incremental utility of neuropsychology in specific legal questions

# For more information…

LaDuke, C., DeMatteo, D., Heilbrun, K., & Swirsky-Sacchetti, T. (*in press*). Clinical neuropsychology in forensic contexts: Practitioners' experience, training, and practice. *Professional Psychology: Research and Practice*.