

# Behavioral Genetics and Criminal Sentencing Across Two Decades

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# JARED LEE LOUGHNER (ARIZONA, 2012)

## Evidence

- Records of four generations of relatives affected by serious mental and behavioral disorders
- Diagnosed with paranoid schizophrenia
- History of substance abuse

## Court Decision

- Found incompetent to stand trial
- Pled guilty to all counts
- Sentenced to life in prison without parole



# BRADLEY WALDROUP (TENNESSEE, 2012)

## Evidence

- Genetic propensity for violence (“Warrior Gene”)
- Low activity allele of the MAOA gene
- History of severe child abuse

## Court Decision

- Evidence of gene-environment combination in Waldroup’s background led jury to decline issuing the death penalty.



# BALANCING AGGRAVATING AND MITIGATING FACTORS

- *Aggravating Factor*
  - Any fact or circumstance that increases the severity or culpability of a criminal act.
- *Mitigating Factor*
  - Information or evidence relevant to the defendant's character or the circumstances of the offense presented as a basis for a sentence less than death.



# AGGRAVATING VS. MITIGATING FACTORS

## ■ Aggravating Factors

- Commission of an offense in an especially heinous, cruel or depraved manner
- Use, threatened use or possession of a deadly weapon
- Commission of an offense expecting to receive something of pecuniary value

## ■ Mitigating Factors

- Information about a capital defendant's background/life prior to the crime
- Capacity to appreciate the wrongfulness of the conduct
- Aspects of the defendant's character

# BEHAVIORAL GENETICS

- Behavioral genetics researchers study genetic and environmental sources of variation in human behavioral traits to measure the inheritance of particular characteristics.



# BEHAVIORAL GENETICS AS MITIGATING EVIDENCE

- *Genes:*
  - Are controlled by environment
  - May potentially predispose an individual to behavioral tendencies, such as aggression.
- *Behavioral Genetics Evidence Includes:*
  - The study of a defendant's family history
  - Direct testing of the defendant's physiological makeup (via brain scans)





# SNAP SHOT OF THE LONGITUDINAL STUDY

## *Part 1*

- Unique study of courts' uses of behavioral genetics evidence over seventeen years through an analysis of 81 criminal cases decided between 1994 and 2011.

## *Part 2*

- The study focuses on the role of behavioral genetics evidence through an analysis of 33 criminal cases decided between June 1, 2007 and July 1, 2011.





# SUMMARY OF FINDINGS

- The use of behavioral genetics evidence within the last four years.
  - Applied almost exclusively as mitigating evidence in death penalty cases.
    1. To support claims of ineffective assistance of counsel.
    2. To provide proof and diagnosis of defendant's mitigating condition.
  - No case where evidence is introduced by the State.
- Breakaway trends within the last four years.

# GLENDASUE CALDWELL (GEORGIA, 1987)

## Woman wins acquittal in murder by blaming her brain disorder

Caldwell spent 9 years in prison

responsible for what I did. I'm a good person," Ms. Caldwell said by telephone Wednesday from a state mental health facility, where she is staying until her family can afford

reverse a conviction.

"Being penalized for something you're not able to control seems to be somewhat inappropriate," she said.

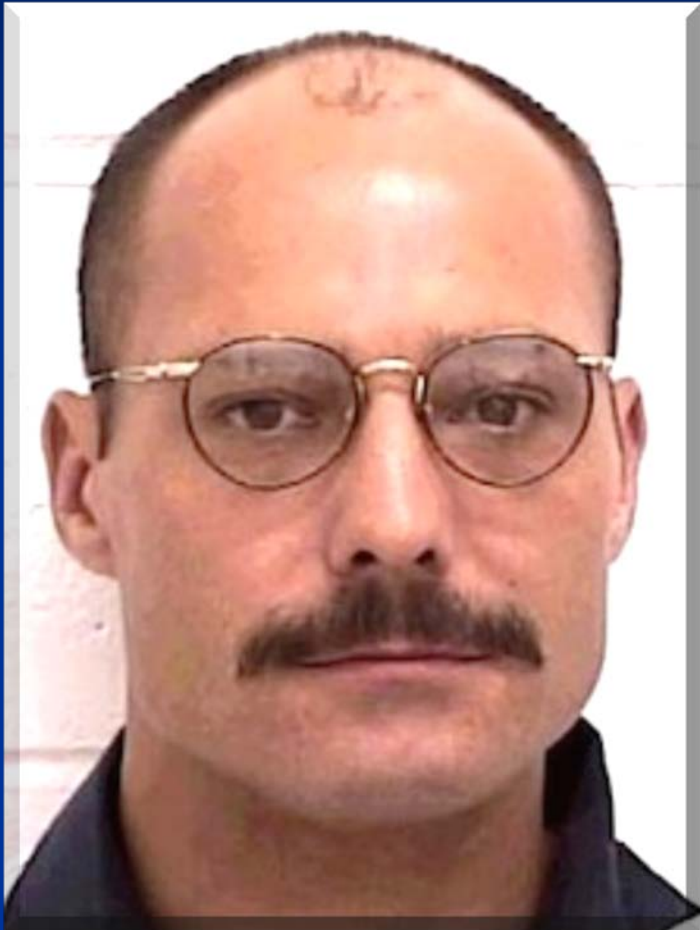
### Evidence

- Argued defense of insanity caused by marital separation and fear of contracting Huntington's Chorea Disease
  - Exhibited stress and a borderline personality

### Court Decision

- Found Caldwell guilty, but mentally ill
- Determined defense to be unsupported by evidence
- Acquitted 9 years later when officially diagnosed

# STEPHEN MOBLEY (GEORGIA, 1991)



## Evidence

- Four generations of Mobleys engaged in acts of violence, aggression, and behavioral disorder.

## Court Decision

- Court did not allow Mobley to be tested for genetic disability linked to high levels of aggression.

# JEFFREY LANDRIGAN (ARIZONA, 1993)

## Evidence

- Biological background indicating genetic propensity for violence.

## Court's Decision

- Landrigan received the death penalty.
- Held that Landrigan's biological background wouldn't have affected the outcome of his trial.
- Believed his behavioral genetics evidence could be used to predict future violence based on Landrigan's lack of remorse



# SUSAN SMITH (SOUTH CAROLINA, 1995)

## Evidence

- Depression and mental illness in family
- Was abused as a child
- Was attempting to commit suicide when she murdered her kids.

## Court Decision

- Found that she lacked the necessary mental state for premeditated murder.
- Did not issue death penalty based on evidence of depression and attempted suicide

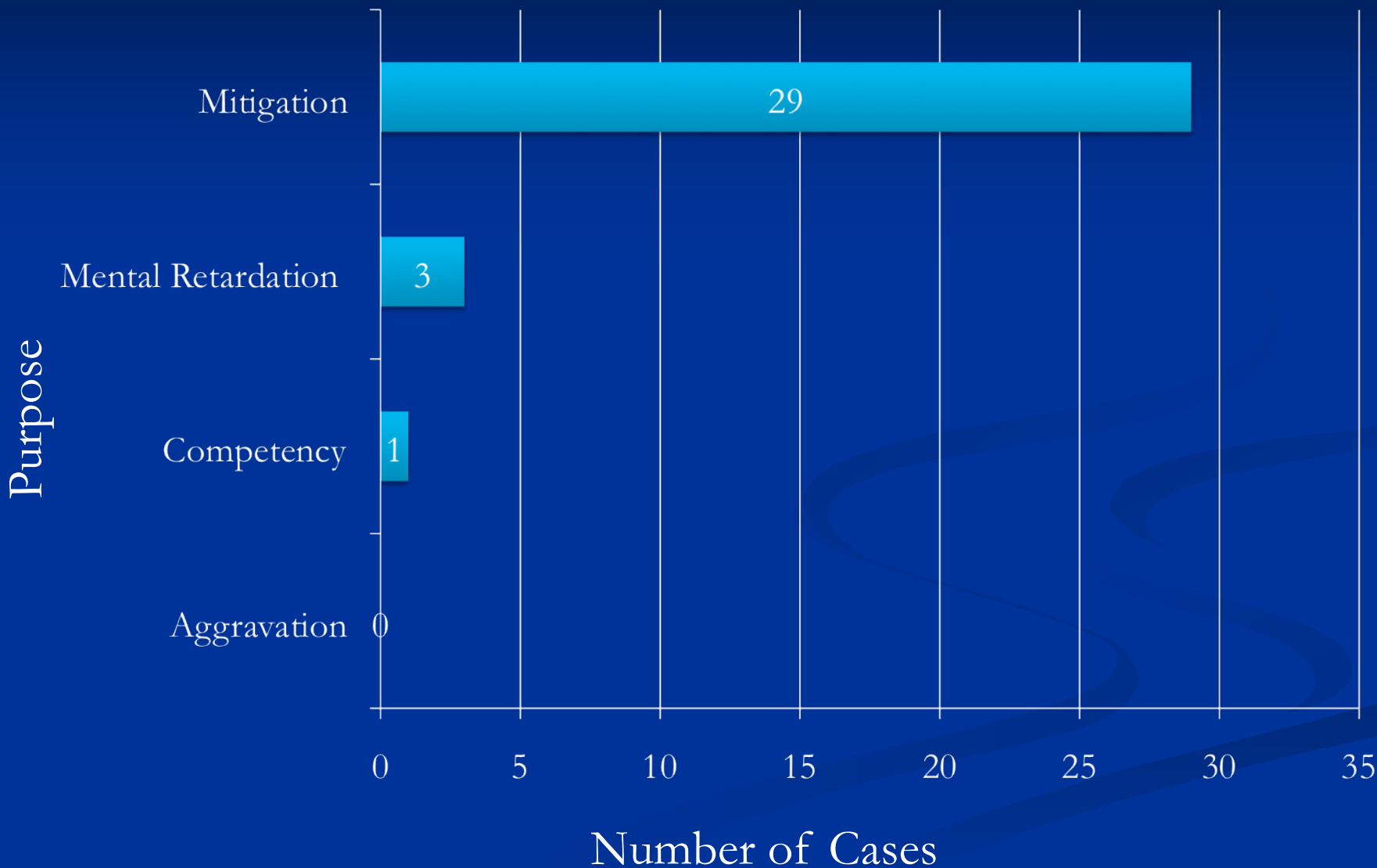


# THE ROLE OF BEHAVIORAL GENETICS EVIDENCE IN 33 CRIMINAL CASES OVER THE PAST 4 YEARS

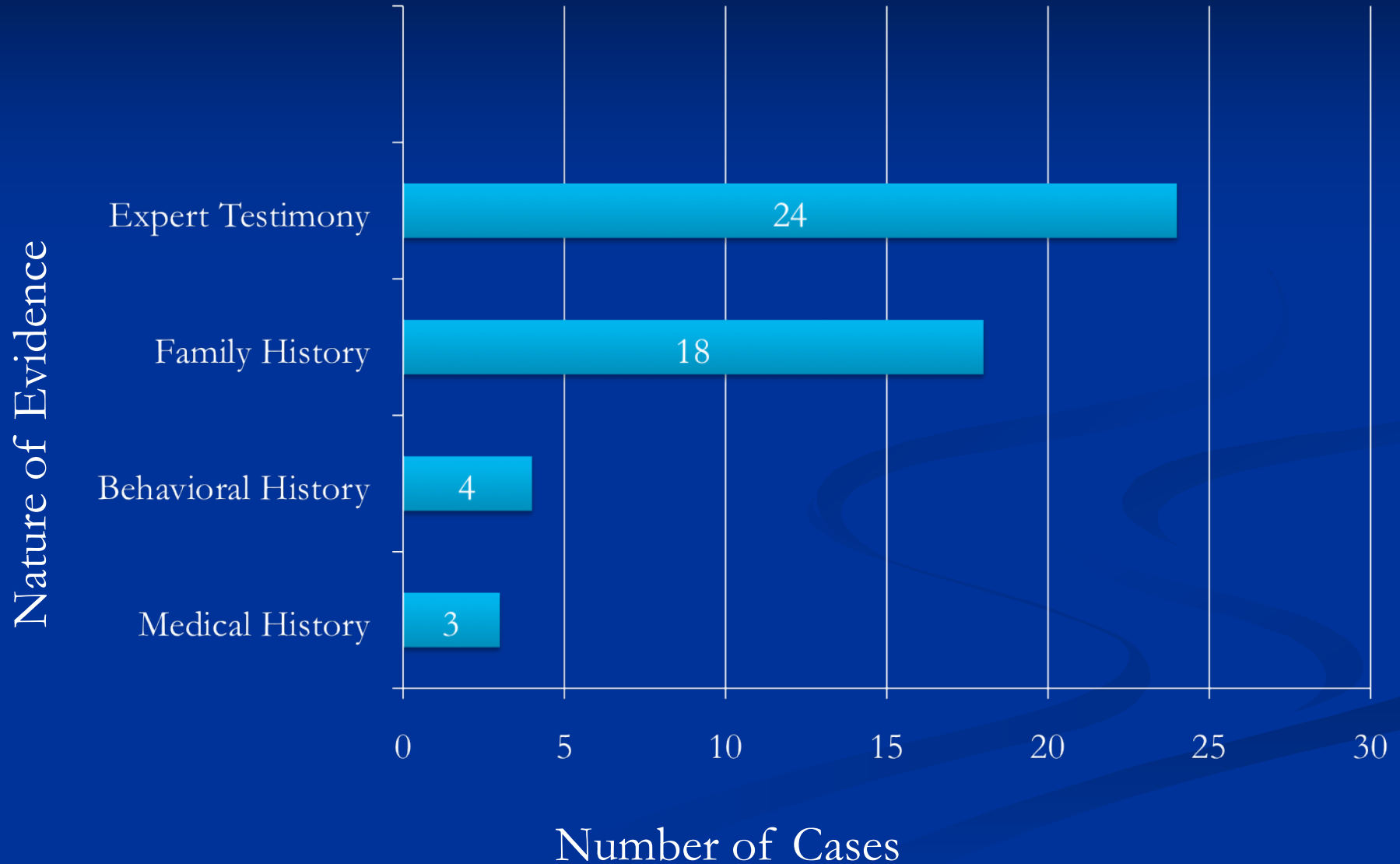
- Focus on the use of behavioral genetics evidence during the penalty phase of trial.
- Behavioral genetics evidence is of significance nearly exclusively in death penalty cases and is applied in no case involving less than a life sentence.
- In ten of this Study's thirty-three cases, defendants originally sentenced to death had their death sentence vacated on appeal.



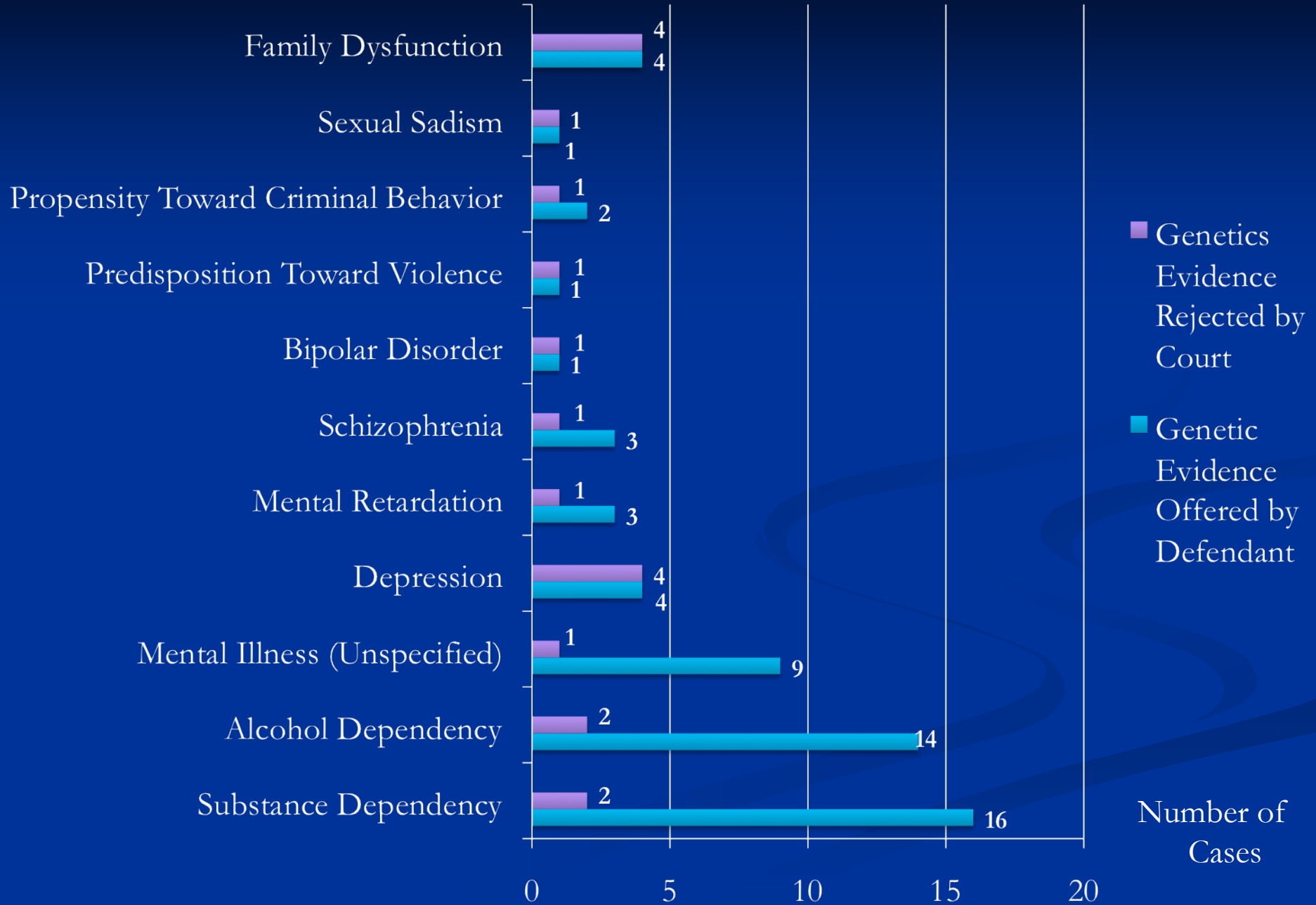
# PURPOSE OF PRESENTING GENETICS EVIDENCE



# NATURE OF EVIDENCE SOUGHT TO BE ADMITTED



# REASONS FOR INTRODUCING GENETICS EVIDENCE



# CHANGES IN THE USE OF BEHAVIORAL GENETICS EVIDENCE

- Judicial skepticism of use of such evidence has faded over last 4 years
  - In all 33 cases studied, courts accepted the validity of behavioral genetics evidence.
  - Weight of evidence determined by case facts
  - Some courts require a pretrial hearing on a defendant's genetic predisposition
  - Others have made it grounds for vacating a death sentence.



# CONCLUSION

- Findings debunk arguments that such evidence will be legally detrimental to defendant.
- Break-a-way trends from earlier years
  - Courts accept such evidence in most of the cases where it's offered and no longer view it as “exotic”
  - Courts rarely question the applicability or relevance of such information.
  - Courts emphasize the importance of determining whether the evidence, when used with other factors in mitigation, can outweigh the aggravating factors that support a death sentence.
  - Results indicate uses beyond mitigating evidence.