EXHIBIT 1

Grosso O'Brien Affidavit

Affidavit of Catherine Grosso and Barbara O'Brien

1. Our names are Catherine Grosso and Barbara O'Brien. We are both professors at the Michigan State University (MSU) College of Law. Together we have undertaken extensive studies of: (1) capital charging and sentencing in North Carolina between the years of 1990 and 2009; and (2) jury selection in capital cases in North Carolina between the years 1990 and 2010. Our statistical consultant is University of Iowa Professor of Statistics and Actuarial Science George Woodworth.

2. I, Catherine Grosso, graduated from the University of Iowa College of Law in 2001 with high distinction and was admitted to the *Order of the Coif.* I am currently an Associate Professor of Law at the MSU College of Law where I teach courses in criminal procedure and corrections law. Prior to joining the faculty at the Michigan State University College of Law, I was a Visiting Assistant Professor of Law at the University of Illinois College of Law where I taught courses in criminal procedure, constitutional law, evidence, and capital punishment law. In my professional career, I have been involved in conducting research and empirical studies on race and the death penalty. My publications on race and the death penalty include: David C. Baldus, Catherine M. Grosso, George Woodworth & Richard Newell, *Racial Discrimination in the Administration of the Death Penalty: The Experience of the United States Armed Forces (1984-2005)*, 101 J. CRIM. L. & CRIMINOLOGY 1227 (2011); David Baldus, George Woodworth, Neil Alan Weiner, David Zuckerman, and Catherine M. Grosso, *Empirical Studies of Race and Geographic Discrimination in the Administration of the Death Penalty: A Primer on Key Methodological Issues*, *in* THE FUTURE OF AMERICA'S DEATH PENALTY: AN AGENDA FOR THE NEXT GENERATION OF CAPITAL PUNISHMENT RESEARCH (Charles S. Lanier, William Bowers, and James Acker eds., 2009); David C. Baldus, George Woodworth, and Catherine M. Grosso, *Race and Proportionality Since McCleskey v. Kemp (1987): Different Actors with Mixed Strategies of Denial and Avoidance*, 39 COLUM. HUM. RTS. L. REV. 143 (2007); David C. Baldus, George Woodworth, Catherine M. Grosso, and Aaron M. Christ, *Arbitrariness and Discrimination in the Administration of the Death Penalty: A Legal and Empirical Analysis of the Nebraska Experience (1973-1999)*, 81 NEB. L. REV. 486 (2002).

1. I, Barbara O'Brien, am an Associate Professor of Law at the MSU College of Law where I teach courses in criminal law and criminal procedure. I received my J.D. from the University of Colorado School of Law and was admitted to the *Order of the Coif.* I received a Ph.D. in social psychology from the University of Michigan. My doctoral training involved advanced courses in research methods and statistics. I have published several articles applying empirical methodology to legal questions, such as identifying predictors of false capital convictions and understanding prosecutorial decision making. Some of my publications include: Barbara O'Brien, Samuel Sommers, & Phoebe Ellsworth, *Ask and What Shall Ye Receive? A Guide for Using and Interpreting What Jurors Tell Us*, 14 U. PA. J. L. & SOC. CHANGE 201 (2011); Barbara O'Brien, *A Recipe for Bias: An Empirical Look at the Interplay Between Institutional Incentives and Bounded Rationality in Prosecutorial Decision Making*, 74 MO. L. REV. 999 (2009); Barbara O'Brien, *Prime Suspect: An Examination of Factors that Aggravate and Counteract Confirmation Bias in Criminal Investigations*, 15 PSYCHOL. PUB. POL'Y & L. 315 (2009); Barbara O'Brien & Daphna Oyserman, *It's Not Just What You Think, But How You*

Think about It: The Effect of Situationally-Primed Mindsets on Legal Judgments and Decision-making, 92 MARQ. L. REV. 149 (2008); Samuel R. Gross & Barbara O'Brien, *Frequency and Predictors of False Conviction: Why We Know So Little, and New Data on Capital Cases*, 5 J. EMPIRICAL LEGAL STUD. 927 (2008).

3. This affidavit presents an overview of our methodology with respect to the charging and sentencing and jury selection studies. We have prepared a table with some of the findings from the jury selection study, which is attached hereto as Exhibit 1. We have also written a report with respect to our jury selection study, a copy of which is attached hereto as Exhibit 2.

SUMMARY OF METHODOLOGY

Jury Selection Study

4. This study documented racial disparities in the prosecutorial use of peremptory strikes in the cases of persons on death row between the years of 1990 and 2010.[1] Of the 159 defendants on death row on July 1, 2010, we obtained data to analyze strike patterns by race in 173 proceedings. The number of proceedings is higher than the number of defendants because some defendants had multiple trials, and one defendant had separate juries for the guilt and penalty phases of the trial. Our database contains information about 7,421 venire members, of whom 7,400 were qualified to be struck by the state.

5. We analyzed the prosecutors' strike patterns of all "qualified" venire members. A venire member was considered "qualified" if he or she was present at the *voir dire* selection and was not excluded for cause. Data collection and coding was performed by law graduates (herein "coders"), under our direct supervision. The coders determined the prosecution's strike patterns based on the venire members the prosecution either passed to the defense or struck with a peremptory strike. We collected strike data about these jurors by reviewing *voir dire* transcripts, court files, and jury seating charts.

6. We then collected information regarding the race of each venire member. We first relied on venire members' self-reported race in jury questionnaires and transcripts. When such information was not available, the coders with assistance from law students used a protocol to search for venire members' race in public record databases, including voter registration, motor vehicle, and death records. Unless a coder was relying on a transcript for identifying information about venire member, all coders searched for race information without knowing the strike information.[2] We are missing race information for only 7 out of 7,400 (0.1%) venire members.

[1] The study also analyzed peremptory strike data from one 1985 capital proceeding. The defendants involved in these three proceedings are currently on death row. For current death row inmates with vacated convictions or sentences, peremptory strikes in the vacated proceeding were considered if the trial occurred in 1990 or later.

[2] In order to ensure that the race coders were blind to the strike information we used separate data collection questionnaires for the strike and race data and in no case did the same person who coded a case for strikes also search for race information.

7. We documented racial disparities in prosecution strike rates of venire members statewide, by judicial division, by prosecutorial district, by county, and among the cases that were tried by the same prosecutor and district attorney. Across all strike-eligible venire members in the study, prosecutors struck 52.6% (636/1,208) of eligible black venire members, compared to only 25.7% (1,592/6,185) of all other eligible venire members. This difference is statistically significant, p. <.001. The average rate per case at which prosecutors struck eligible black venire members is significantly higher than the rate at which they struck other eligible venire members. Of the 166 cases that included at least one eligible black venire members, prosecutors struck an average of 56.05% of eligible black venire members, compared to only 24.8% of all other eligible venire members. This difference is statistically significant, p<.001.

8. These disparities are even greater in cases involving black defendants. In cases with non-black defendants, the average strike rate was 51.4% against black venire members and 26.8% against all other venire members. In contrast, in cases with black defendants, the average strike rate was 60.0% against black venire members and 23.1% against all other qualified venire members.

9. These disparities further persist across the jurisdictions implicated in individual death sentenced cases. We observed significant racial disparities in the exercise of peremptory strikes by the prosecution in the majority of judicial division, prosecutorial district, county, and individual case levels. A summary of the disparities found in the division, district, and county levels is reported in Exhibit 1.

Charging and Sentencing Study

10. In conducting the charging and sentencing study, we reviewed thousands of murder cases in North Carolina. Based on this review we estimated that 5,772 cases were eligible for the death penalty in North Carolina between the years of 1990 and 2009. All of the case screening work was done by graduates with law degrees and supervised by a full-time project manager who is also a trained lawyer and a member of the North Carolina bar. Retired North Carolina Superior Court Judge Melzer A. Morgan, Jr., reviewed all cases in which the only potential basis for death eligibility was a fact-intensive aggravating circumstance, such as the crime being especially heinous, atrocious, or cruel. For these cases, Judge Morgan made final determinations as to death eligibility under North Carolina law.

11. The charging and sentencing study includes detailed information from every death eligible murder case that was brought to a penalty trial, a total of 690 cases. Our study also includes detailed information from 871 death eligible murder cases that did not advance to a capital trial. These 871 cases are a random sample of the universe of death eligible cases. Thus, our study includes detailed information for a total of 1,562 cases. For each case, we collected information on the race of the defendant and victim and over 200 factors, including the statutory aggravating and mitigating factors, as well as numerous other factors identified in the case law and previous research as potentially relevant. Our sources of data included:

a. Superior Court files;
b. Appellate court opinions and records on appeal;
c. Official Crime Versions prepared by the Department of Correction, obtained with the cooperation of the Department of Correction and Attorney General;
d. Homicide victim data obtained from the Office of the Chief Medical Examiner;
e. Department of Correction website;
f. Media reports;
g. Lexis Nexis;
h. Archived issues of the Capital Update, published by the Center for Death Penalty Litigation; and
i. In limited circumstances, conversations with attorneys involved in the case.

12. We analyzed the statewide evidence of disparities based on race of the victim in three ways. First, we used cross-tabular procedures to calculate racial disparities in capital charging or sentencing practices, without considering the impact of other potential explanatory factors ("unadjusted disparities"). Second, we constructed a logistic multiple regression model that analyzed the relationship between race and charging and sentencing, after accounting for the statutory aggravating and mitigating factors ("statutory controls regression model"). Third, we constructed a regression model that analyzed the role of race in charging and sentencing, after analyzing the importance of and where appropriate controlling for over 200 potentially explanatory variables in addition to the statutory aggravating and mitigating circumstances that might impact the outcome of a capital case ("all meaningful controls regression model"). The regression models have been "adjusted" by the controls to take into account potentially explanatory variables.

13. We analyzed four individual or combined charging and sentencing decision points: (1) the combined impact of the charging and sentencing decisions in the issuance of death sentences; (2) the prosecutor's decisions to seek death at any point in the charging process; (3) the prosecutor's decision to advance the case to capital trial; and (4) the jury's penalty trial sentencing decision.

14. The statewide analysis of charging and sentencing in death eligible murder cases shows significant, strong, and consistent disparities based on the race of the victim. The statewide data analysis reveals that between 1990 and 2009 defendants in North Carolina were significantly more likely to be charged and sentenced to death if at least one of the victims was white.

15. *Combined Effect of Charging and Sentencing Decisions.* Statewide, from 1990 to 2009, 8.26% of death eligible cases with at least one white victim resulted in death sentences, while only 3.19% of death eligible cases without white victims resulted in death sentences. Thus, death eligible cases with at least one white victim were 2.59 times more likely to result in a death sentence than all other cases.

16. We also measured race disparities in adjusted analyses that account for the impact of non-racial factors that bear on charging and sentencing outcomes. Even after controlling for statutory aggravating and mitigating circumstances in the statutory controls regression model, death eligible defendants in cases with at least one white victim faced odds of receiving a death sentence that were 2.067 times higher than the odds faced by all other similarly situated defendants.

17. *Prosecutors' Decisions to Advance to Capital Trial.* Statewide, from 1990 to 2009, prosecutors brought 17.21% of death eligible cases with at least one white victim to a capital trial, but brought only 8.86% of those cases without at least one white victim to a capital trial. Thus, prosecutors were 1.94 times more likely to bring a case to a capital trial if the case involved at least one white victim.

18. These disparities also persisted in regression models that account for the impact of non-racial statutory aggravating and mitigating circumstances in the cases. Even after controlling for statutory aggravating and mitigating circumstances in the statutory controls model, death eligible defendants in cases with least one white victim faced odds of advancing to a capital trial that were 1.530 times higher than the odds faced by all other similarly situated defendants.

Catherine Grosso, J.D.
Associate Professor of Law
Michigan State University College of Law

Barbara O'Brien, J.D., Ph.D.
Associate Professor of Law
Michigan State University College of Law

Sworn and subscribed to before me, a notary public for the County of Ingham, State of Michigan, on this the 15 day of May 2012.

NOTARY PUBLIC

MY COMMISSION EXPIRES ON:

BETH ANNE WEY
Notary Public, State of Michigan
County of Clinton
My Commission Expires Nov. 29, 2015
Acting in the County of Ingham

Table I. Strike Rates by Prosecutorial District

Prosecutorial District	Number of cases	Black Venire Members	Other Venire Members	Strike Rate Ratio
1	3	47.8%	23.3%	2.1
2	3	63.0%	17.2%	3.7
3A	3	59.7%	18.3%	3.3
3B	3	61.1%	20.4%	3.0
4	6	71.7%	19.0%	3.8
5	5	56.6%	27.0%	2.1
6A	2	47.4%	9.0%	5.3
6B	5	48.6%	17.3%	2.8
7	4	38.3%	17.4%	2.2
8	6	60.7%	21.8%	2.8
9A	1	42.1%	33.3%	1.3
10	10	61.5%	24.9%	2.5
11	12	48.5%	27.6%	1.8
12	11	52.7%	20.5%	2.6
13	4	59.0%	23.2%	2.5
14	1	50.0%	17.9%	2.8
15A	1	66.7%	25.7%	2.6
16A	2	40.9%	31.1%	1.3
16B	5	56.0%	21.4%	2.6
17A	2	62.5%	25.7%	2.4
17B	2	50.0%	23.9%	2.1
18	4	45.6%	23.2%	2.0
19A	3	55.6%	25.4%	2.2
19B	9	69.4%	28.6%	2.4
19C	1	16.7%	22.9%	0.7
19D	1	0.0%	31.8%	0.0
20	7	87.0%	24.0%	3.6
21	13	54.2%	24.4%	2.2
22	8	65.6%	27.8%	2.4
22.1	1	100.0%	23.8%	4.2
23	1	50.0%	31.4%	1.6
25	1	25.0%	33.9%	0.7
26	5	56.4%	27.0%	2.1
27A	7	37.3%	31.7%	1.2
28	9	56.9%	30.7%	1.9
29	5	42.0%	31.6%	1.3

Table II. Prosecutorial Strike Rates by County

County	Number of cases	Black Venire Members	Other Venire Members	Strike Rate Ratio
Alamance	1	67.67%	25.71%	2.6
Anson	1	62.50%	13.33%	4.7
Ashe	1	50.00%	31.71%	1.6
Beaufort	1	62.50%	27.03%	2.3
Bertie	2	54.73%	14.17%	3.9
Bladen	1	33.33%	26.32%	1.3
Brunswick	2	72.12%	23.24%	3.1
Buncombe	9	56.88%	30.64%	1.9
Cabarrus	1	50.00%	25.00%	2.0
Camden	1	66.67%	28.21%	2.4
Caswell	1	42.11%	33.33%	1.3
Catawba	1	25.00%	33.87%	0.7
Columbus	1	58.33%	20.00%	2.9
Craven	3	61.11%	20.43%	3.0
Cumberland	11	52.69%	20.48%	2.6
Davidson	3	77.78%	31.33%	2.5
Davie	4	54.17%	24.51%	2.2
Durham	1	50.00%	17.86%	2.8
Forsyth	13	54.17%	24.41%	2.2
Gaston	7	37.31%	31.74%	1.2
Gates	2	38.39%	20.87%	1.8
Guilford	4	45.58%	23.17%	2.0
Halifax	2	47.43%	9.02%	5.3
Harnett	5	42.97%	26.79%	1.6
Hertford	1	50.00%	23.81%	2.1
Hoke	1	36.36%	25.81%	1.4
Iredell	2	87.50%	27.18%	3.2
Johnston	7	52.38%	28.23%	1.9
Lenoir	1	44.40%	28.57%	1.6
Martin	1	88.89%	6.45%	13.8
Mecklenburg	5	56.36%	27.04%	2.1
Montgomery	1	33.33%	32.35%	1.0
Moore	2	25.00%	32.98%	0.8
Nash	1	30.00%	27.78%	1.1
New Hanover	4	54.05%	27.79%	1.9
Northhampton	2	41.67%	17.26%	2.4
Onslow	3	69.44%	18.63%	3.7
Pender	1	66.67%	23.68%	2.8

Pitt	3	59.72%	18.26%	3.3
Polk	2	0.00%	33.75%	0.0
Randolph	7	77.38%	27.82%	2.8
Richmond	1	71.43%	20.00%	3.6
Robeson	5	56.00%	21.43%	2.6
Rockingham	2	62.50%	25.68%	2.4
Rowan	3	44.44%	24.69%	1.8
Rutherford	3	70.00%	30.63%	2.3
Sampson	3	73.94%	19.43%	3.8
Scotland	1	45.45%	36.36%	1.3
Stanly	2	100.00%	26.91%	3.7
Stokes	1	0.00%	31.71%	0.0
Surry	1	100.00%	18.92%	5.3
Union	3	91.67%	27.01%	3.4
Wake	10	61.50%	24.88%	2.5
Washington	1	37.50%	18.18%	2.1
Wayne	5	63.92%	20.44%	3.1
Wilson	3	41.11%	13.93%	3.0