CORRELATION BETWEEN HIGH RATES OF CORPORAL PUNISHMENT IN PUBLIC SCHOOLS AND SOCIAL PATHOLOGIES

By John Guthrow, December 2002

INTRODUCTION

The purpose of this study is to determine whether there is a correlation between the use of corporal punishment in public schools and larger societal outcomes. In other words, it seeks the answer to questions such as: Do states that use corporal punishment in public schools have higher or lower test scores, crime rates, and poverty rates relative to other states? Is there a difference in macro-level societal outcomes between states that paddle school children and those that do not? Or is there no difference at all? These questions have not received much attention in sociology literature, and this study is meant to pose these questions, to analyze sociological data, and to provide rudimentary answers to the questions such as those raised above.

As of this writing, corporal punishment in schools is still legal in twenty-two states in the United States. While corporal punishment in schools used to be common and widely accepted in schools across the U.S., it has become increasingly controversial. Those opposed to paddling claim that it creates a violent, negative educational environment and produces feelings of anger, anxiety, humiliation, and aggression in children who are victims of corporal punishment. Because of this controversy, many schools districts and individual schools within states that allow paddling have nevertheless banned the practice, joining those twenty-eight states that have banned it altogether.

Those who defend paddling in those places where it is still used often claim that it is a necessary tool to maintain discipline among increasingly out-of-control children. In short, they claim that it works and that it produces an educational environment conducive to learning. Many cite Biblical verses which seemingly encourage the physical punishment of children, and many claim that corporal punishment was used against them as children and they turned out well. And paddling proponents also point to states that have banned paddling as examples of places where teachers do not have control of the classroom anymore and where the educational environment suffers accordingly.

Since Americans increasingly view education as one of the most important foundations of society and a strong economy, the question of what kinds of educational environments really work and which ones do not has never been more important. Since many states have banned corporal punishment in schools and many others have not and still allow it, it is possible to study in a fairly scientific way whether one approach to education works better than the other. In short, the opportunity exists for a controlled experiment, in which it is possible to study whether those states that still paddle children do better or worse, in the classroom and in other areas of society, than those states that do not.

If the claims of those who defend paddling are true, and corporal punishment truly does produce an educational environment more conducive to learning, then one would expect, for example, better test scores and graduation rates in states that paddle children compared with states that do not And if the schools are better in paddling states, and to the extent that good schools produce a strong economy and society, one would also expect, in general, a stronger economy, less poverty, healthier citizens, etc.

This study tries to test that theory by objectively comparing paddling states and non-paddling states in various sociological categories, including test scores and graduation rates, poverty rates and crime rates, and so forth. By comparing the results from paddling states versus non-paddling states, it is possible to see whether there is a correlation, or not, between school paddling and larger societal

outcomes. Does paddling produce a better educational environment and a more orderly, successful society? Or not? Do non-paddling states perform better than paddling states in education and other categories? Or is there no correlation at all? Do paddling states and non-paddling perform at roughly equal levels in the classroom and in other areas? This study seeks the answer to these questions.

METHODS

In order to determine whether there is a correlation between corporal punishment in schools and macro-level societal outcomes, two sets of data were compared and analyzed. The first is the United States Department of Education's 1998 Elementary and Secondary School Civil Rights Compliance Report, which tracks the use of corporal punishment in public schools and, specifically, provides the number of incidents of corporal punishment in each state in which it is legal for the 1997-98 school year.

The second set of data studied were various sociological categories from Congressional Quarterly's State Fact Finder 2002. This publication analyzes data relating to the economy, crime, education, health care, and other categories for the fifty states in the United States. The data in the State Fact Finder 2002 are themselves taken from many different sources ---state governments, various departments and bureaus of the federal government, including the Census Bureau and the Department of Justice, to name a couple. The specific purpose of the State Fact Finder 2002 itself is to compile data relating to many different subject areas and to rank the states in various specific categories. For example, the State Fact Finder 2002 lists and ranks the states by murder rate, from highest murder rate to lowest murder rate. It also lists and ranks the states by graduation rate, best to worse. Etc. In short, the State Fact Finder 2002 allows readers and researchers to compare the states in various categories to see which states are performing well in a particular category, relative to the other states, which states are performing poorly, and which states are about average.

Comparing these two sets of data ---the list of states which use corporal punishment in schools and also the various rankings of the states in different sociological categories relating to crime, education, the economy, etc ---provides a mechanism for analyzing whether there is in fact a correlation between corporal punishment in schools and larger societal outcomes. For example, if one compares the state rankings for high school graduation rates with the list of states that use corporal punishment in schools, one can see whether there is a correlation between the two lists. For the purposes of this study, a "correlation" is defined as simply a disproportionate number of paddling states at one end or the other of the rankings of each category.

One can define "disproportionate" in fairly specific terms. There were, at the time the data in this study were collected, twenty-three states in the United States that allow corporal punishment in public schools. Twenty-three states represent 46% of the states in the United States. If there were no correlation between corporal punishment in public schools and larger societal outcomes, one would expect an even distribution of paddling and non-paddling states within each percentile of each category. In other words, within any random sample of ten states, one would expect 4.6 paddling states and 5.4 non-paddling states to appear. The "best ten" states in terms of the graduation rate, for example, would contain 4.6 paddling states and 5.4 non-paddling states. (In real terms, of course, that translates into 4 to 5 paddling states and 5 to 6 non-paddling states, but statistically, 4.6 and 5.4 are the expected numbers.) The "worst ten" states would also contain 4.6 paddling states and 5.4 non-paddling states. And so would the second tier (spots 11-20), the middle tier (spots 21-30), and the fourth tier (spots 31-40). Again, this would be the case in the theoretical scenario in which there was absolutely no correlation between corporal punishment in public schools and larger societal outcomes.

If there is a correlation between corporal punishment in schools and larger societal outcomes, then one would expect an uneven distribution of paddling and non-paddling states within each percentile of each category. In other words, within any random sample of ten states, one would expect either significantly more or significantly fewer than 4.6 paddling states to appear in any given sociological category and an inversely proportional number of non-paddling states. For example, the "best ten" states in terms of the graduation rate might include 2 paddling states (instead of 4 to 5) and 8 non-paddling states (instead of 5 to 6). Or visa versa, i.e., the "best ten" states might include 6 paddling states (instead of 4 to 5) and 4 non-paddling states (instead of 5 to 6). Either scenario would represent, by definition, a disproportionate representation within the sample. And this logic applies to each tier of ten states ---the "best ten," as well as the second tier, third tier, fourth tier, and the "worst ten" ---for any given sociological category, whether the murder rate or the graduation rate or any number of other categories.

This study examines thirteen sociological categories and applies the analytical logic described above to determine whether there is in fact a correlation between states that use corporal punishment in schools and larger societal outcomes. Specifically, the study targets the "best ten" states and the "worst ten" states in each sociological category to determine whether there is an even or uneven distribution of paddling and non-paddling states. In other words, the study examines, for example, whether a disproportionate number of paddling or non-paddling states appear among those states with the highest murder rates, and also the lowest murder rates, or whether there is an even distribution of paddling and non-paddling states in one or both tiers. By definition, of course, if there are a disproportionate number of paddling states in a given category, there is an inversely disproportionate number of non-paddling states. In other words (as described above), if there are 8 paddling states in a given tier, there are, by definition, 2 non-paddling states in the same tier.

The thirteen categories studied are: the murder rate, the incarceration rate, the condition of children index, the average proficiency in math for 8th graders, the high school completion rate, the percentage of the population over 25 with a high school diploma, state and local education spending, spending per pupil, the percentage of the population in poverty, the percentage of children in poverty, the percentage of births to unwed mothers, state health rankings, and the death rate. The results appear on the following pages.

RESULTS

Murder Rate (highest):

Of the states with the ten highest murder rates in the United States, educators paddle children in eight of them.

Those eight paddling states are. in order by murder rate: Louisiana, which has the highest murder rate in the nation (6th in the nation by percentage of students struck by educators); Mississippi, which has the 2nd highest murder rate in the nation (1st by percentage of students struck by educators); Georgia. which has the 4th highest murder rate (7th in the nation by percentage of students struck by educators); Alabama and New Mexico, tied with the 5th highest murder rate in the nation (3rd and 10th, respectively, by percentage of students struck by educators); Tennessee, which has the 7th highest murder rate (4th by percentage of students struck by educators); and North Carolina and Arizona, which are tied with the 9th highest murder rate in the nation (12th and 18th, respectively, by percentage of students struck by educators). The two non-paddling states are: Maryland, which has the 4th highest

murder rate; and Illinois, which is tied with Tennessee with the 7th highest murder rate.

Murder Rate (lowest):

Of the states with the ten lowest murder rates in the nation, educators paddle children in one of them.

That paddling state is Idaho, which has the 3rd lowest murder rate (18th by percentage of students hit).

The nine non-paddling states are: North Dakota, which has the lowest murder rate in the nation; South Dakota, which has the 2nd lowest murder rate; Maine, which is tied with Idaho with the 3rd lowest murder rate; Vermont, with the 5th lowest murder rate; Iowa, with the 6th lowest murder rate; New Hampshire, with the 7th lowest murder rate; Montana, with the 8th lowest murder rate; Utah, which has the 9th lowest murder rate; and Oregon and Massachusetts, which are tied with the 10th lowest murder rate.

Incarceration Rate (highest):

Of the ten states with the highest percentage of the population in prison, educators paddle children in nine of them.

Those states are, in order by incarceration rate: Louisiana, which has the highest incarceration rate in the nation (6th by percentage of students hit); Texas, which has the 2nd highest incarceration rate (8th by percentage of students hit); Mississippi, which has the 3rd highest incarceration rate (1st by percentage of students hit); Oklahoma, which has the 4th highest incarceration rate (5th by percentage of students hit); Georgia, which has the 5th highest incarceration rate (7th by percentage of students hit); Alabama, which has the 6th highest incarceration rate (3rd by percentage of students hit); South Carolina, which has the 7th highest incarceration rate (11th by percentage of students hit); Arizona, which has the 9th highest incarceration rate (18th by percentage of students hit); and Delaware, which has the 10th highest incarceration rate (16th by percentage of students hit).

The non-paddling state is: Nevada, which has the 9th highest incarceration rate.

Incarceration Rate (lowest):

Of the ten states with the lowest percentage of the population in prison, educators do not paddle children in any of them.

Those non-paddling states are: Minnesota, which has the lowest incarceration rate in the nation; Maine, which has the 2nd lowest incarceration rate; North Dakota, which has the 3rd lowest incarceration rate; New Hampshire, which has the 4th lowest incarceration rate; Rhode Island, which has the 5th lowest incarceration rate; West Virginia, which has the 6th lowest incarceration rate; Vermont, which has the 7th lowest incarceration rate; Nebraska, which has the 8th lowest incarceration rate; Washington, which has the 9th lowest incarceration rate; and Massachusetts, which has the 10th lowest incarceration rate.

Condition of Children lndex* (worst):

Of the ten worst states in the United States in which to raise children, as measured by the condition of children index, educators paddle children in all ten of them.

Those states are, in reverse order of the condition of children index (worst to best):
Mississippi, which ranks 50th on the condition of children index (1st by percentage of students hit);
Louisiana, which ranks 49th on the condition of children index (6th by percentage of students hit);
New Mexico, which ranks 48th on the condition of children index (10th by percentage of students hit);
Arkansas, which ranks 47th on the condition of children index (2nd by percentage of students hit);
Alabama, which ranks 46th on the condition of children index (3rd by percentage of students hit);
Arizona, which ranks 45th on the condition of children index (18th by percentage of students hit);
Georgia, which ranks 44th on the condition of children index (7th by percentage of students hit);
Tennessee, which ranks 43rd on the condition of children index (4th by percentage of students hit);
South Carolina, which ranks 42nd on the condition of children index (11th by percentage of students hit); and
North Carolina, which ranks 41st on the condition of children index (12th by percentage of students hit).

* The condition of children index measures the overall well-being of children in terms of poverty, education, health, etc.

Condition of Children lndex* (best):

Of the ten best states in the United States in which to raise children, as measured by the condition of children index, educators do not paddle children in any of them.

Those states are: New Hampshire, which ranks 1st on the condition of children index; Minnesota, which ranks 2nd; Utah, which ranks 3rd; Massachusetts, which ranks 4th; Wisconsin, which ranks 5th; Iowa, which ranks 6th; New Jersey, which ranks 7th; Nebraska, which ranks 8th; Washington, which ranks 9th; and Maine, which ranks 10th.

* The condition of children index measures the overall well-being of children in terms of poverty, education, health, etc.

Average Proficiency in Math --8th grade (worst):

Of the states in the bottom ten percent* in terms of average proficiency in math, educators paddle children in all of them.

These states are, in reverse order of math proficiency: Mississippi, which ranks last, 39th out of 39, in average math proficiency for 8th graders (1st by percentage of students hit by educators); Louisiana, which ranks 38th out of 39 in average math proficiency (6th by percentage of students hit by educators); New Mexico, which ranks 37th out of 39 in math proficiency (10th by percentage of students hit); and Arkansas, which ranks 36th out of 39 in math proficiency (2nd by percentage of students hit).

* Note: Only 39 states submitted data for this category; therefore, rather than the worst ten states, the

lowest ten percent of states are evaluated. For 39 states, ten percent represents approximately 4 positions. Thus, the worst four states (36th to 39th in math proficiency) are evaluated. -

Average Proficiency in Math --8th grade (best):

Of the states in the top ten percent* in terms of average proficiency in math, educators paddle children in one of them.

The paddling state is: Kansas, which ranks 2nd out of 39 in math proficiency (18th by percentage of students hit). The non-paddling states are, in order of math proficiency: Minnesota, which ranks 1st out of 39 in average math proficiency for 8th graders; Montana, which ranks 2nd out of 39; and Maine, which ranks 3rd out of 39.

* Note: Only 39 states submitted data for this category; therefore, rather than the best ten states, the best ten percent of states are evaluated. For 39 states, ten percent represents approximately 4 positions. Thus, the best four states (1st to 4th in math proficiency) are evaluated.

High School Completion Rate (worst):

Of the states with the ten worst high school completion rates, educators paddle children in seven of them.

Those states are, in reverse order of high school completion rate: Arizona, which has the worst high school completion rate in the nation (18th by percentage of students hit by educators); Texas, which ranks 48th out of 50 by high school completion rate (8th by percentage of students hit by educators); Alabama and Colorado, which ~e tied at 46th out of 50 by high school completion rate (3rd and 18th, respectively, by percentage of students hit)~ Lousiana, which ranks 45th (6th by percentage of students hit); Mississippi, which ranks 43rd (1st by percentage of students hit); and New Mexico, which ranks 41st (10th by percentage of students hit). The non-paddling states are: Nevada, which ranks 49th out of 50 by high school completion rate; Oregon, which ranks 43rd out of 50 by high school completion rate; and California, which ranks 41st out of 50.

High School Completion Rate (best):

Of the states with the ten best high school completion rates, educators paddle children in one of them.

That paddling state is: Missouri, which has the 4th best high school completion rate in the nation (9th by percentage of students hit). The non-paddling states are: Maine, which has the best high school completion rate in the nation; North Dakota, which has the 2nd best high school completion rate; Alaska, which has the 3rd best rate; South Dakota, which has the 5th best rate; Minnesota, which has the 6th best rate; Hawaii, which has the 7th best rate; Connecticut, which has the 8th best rate; Nebraska, which has the 9th best rate; and Montana, which has the 10th best rate.

State and Local Education Spending (worst):

Of the ten worst states in terms of state and local education spending, educators paddle children in seven of them.

Those paddling states are, in reverse order of spending: Horida, which ranks last in the nation in state and local education spending (12th by percentage of students hit by educators); Tennessee, which ranks 49th out of 50 in state and local education spending (4th by percentage of students hit); Kentucky, which ranks 47th (14th by percentage of students hit); Arizona, which ranks 45th (18th by percentage of students hit); Arkansas, which ranks 43rd (2nd by percentage of students hit); Missouri, which ranks 42nd (9th by percentage of students hit); and Louisiana, which ranks 41st (6th by percentage of students hit).

The non-paddling states are: Hawaii, which ranks 48th in the nation in state and local education spending; New Hampshire, which ranks 46th; and South Dakota, which ranks 44th.

State and Local Education Spending (best):

Of the ten best states in terms of state and local education spending, educators paddle children in one of them.

That paddling state is: Delaware, which ranks 4th in terms of state and local education spending (16th by percentage of students hit). The non-paddling states are: Alaska, which ranks 1st in the nation in state and local education spending; Wyoming, which ranks 2nd; Michigan, which ranks 3rd; Vermont, which ranks 5th; New York, which ranks 6th; Wisconsin, which ranks 7th; New Jersey, which ranks 8th; Minnesota, which ranks 9th; and Iowa, which ranks 10th.

Spending per Pupil (worst):

Of the ten worst states in terms of spending per pupil, educators paddle children in seven of them.

Those states are, in reverse order of spending per pupil: Arizona, which ranks 48th out of 50 in spending per pupil (18th by percentage of students hit); Alabama, which ranks 47th out of 50 in spending per pupil (3rd by percentage of students hit); Mississippi, which ranks 46th (1st by percentage of students hit); Colorado, which ranks 45th (18th by percentage of students hit); Arkansas, which ranks 43rd (2nd by percentage of students hit); Tennessee, which ranks 42nd (4th by percentage of students hit); and Idaho, which ranks 41st (18th by percentage of students hit).

The non-paddling states are: Utah, which ranks 50th out of 50 in terms of spending per pupil; North Dakota, which ranks 49th; and Nevada, which ranks 44th.

Spending per Pupil (best):

Of the ten best states in terms of spending per pupil, educators paddle children in one of them.

That paddling state is: Delaware, which ranks 6th in terms of spending per pupil (16th by percentage of students hit). The non-paddling states are: Connecticut, which ranks 1st in the nation in terms of

spending per pupil; New York, which ranks 2nd; New Jersey, which ranks 3rd; Alaska, which ranks 4th; Massachusetts, which ranks 5th; Vermont, which ranks 7th; Rhode Island, which ranks 8th; Wisconsin, which ranks 9th; and Illinois, which ranks 10th.

Percentage of the Population Over 25 With a High School Diploma in 2000 (worst):

Of the ten worst states in terms of percentage of the population over 25 with a high school diploma, educators paddle children in seven of them.

Those paddling states are, in reverse order of the percentage of the population over 25 with a high school diploma: Alabama, which ranks 49th out of 50 (3rd by percentage of students hit); Kentucky, which ranks 48th out of 50 (14th by percentage of students hit); Texas and North Carolina, which are tied at 46th (8th and 12th, respectively, by percentage of students hit); Tennessee, which ranks 45th (4th by percentage of students hit); Mississippi, which ranks 44th (1st by percentage of students hit); and Louisiana, which ranks 43rd (6th by percentage of students hit).

The non-paddling states are: West Virginia, which ranks 50th out of 50 by percentage of the population over 25 with a high school diploma; California, which ranks 42nd; and Rhode Island, which ranks 41st.

Percentage of the Population Over 25 With a High School Diploma in 2000 (best):

Of the ten best states in terms of percentage of the population over 25 with a high school diploma, educators paddle children in one of them.

That paddling state is: Colorado, which ranks 9th (tied with Iowa) by percentage of the population over 25 with a high school diploma (18th by percentage of students hit).

The non-paddling states are: South Dakota, which had the highest percentage of the population over 25 with a high school diploma; Washington, which ranks 2nd; Minnesota, which ranks 3rd; Utah, which ranks 4th; Alaska and Nebraska, which are tied at 5th; Vermont and Wyoming, which are tied at 7th, and Iowa (tied with Colorado) at 9th.

Percentage of the Population in Poverty (worst):

Of the ten most impoverished states in the United States, educators paddle children school in seven of them.

Those paddling states are, from highest to lowest percentage of the population in poverty: Arkansas, which ranks 1st by percentage of the population in poverty (2nd by percentage of students hit by educators); Louisiana, which ranks 2nd by percentage of the population in poverty (6th by percentage of students hit); New Mexico, which ranks 3rd in poverty (10th by percentage of students hit); Oklahoma, which ranks 5th in poverty (and also 5th by percentage of students hit); Texas, which ranks 6th in poverty (8th by percentage of students hit); Tennessee, which ranks 7th in poverty (4th by percentage of students hit); and Alabama, which ranks 8th in poverty (3rd by percentage of students).

The non-paddling states are: Montana, which ranks 4th by percentage of the population in poverty; West Virginia, which ranks 9th; and New York, which ranks 10th.

Percentage of the Population in Poverty (best):

Of the ten least impoverished states in the United States, educators paddle children school in two of them.

Those paddling states are: Missouri, which ranks 44th by percentage of the population in poverty (9th by percentage of students hit); and Colorado, which ranks 43rd by percentage of the population in poverty (18th by percentage of students hit). The non-paddling states are: New Hampshire, which has the lowest poverty rate in the nation; Minnesota, which ranks 49th in poverty; Connecticut, which ranks 48th; Iowa, which ranks 47th; Virginia and Maryland, which are tied at 45th; Alaska, which ranks 42nd; and New Jersey, which ranks 41st.

Percentage of Children in Poverty (worst):

Of the ten states in the United States with the highest percentage of children in poverty, educators paddle children in eight of them.

Those states are, from highest to lowest percentage of children in poverty: Arkansas, which has the highest child poverty rate in the nation (2nd by percentage of students hit by educators); Oklahoma, which has the 3rd highest child poverty rate in the nation (5th by percentage of students hit); Louisiana, which ranks 4th highest in child poverty (6th by percentage of students hit); New Mexico, which ranks 5th highest in child poverty (10th by percentage of students hit); Texas, which ranks 6th highest in child poverty (8th by percentage of students hit); Alabama, which ranks 7th highest in child poverty (3rd by percentage of students hit); Tennessee, which ranks 8th highest in child poverty (4th by percentage of students hit); and Arizona, which ranks 9th highest in child poverty (18th by percentage of students hit).

The non-paddling states are: Montana, which ranks 2nd in child poverty; and California, which ranks 10th in child poverty.

Percentage of Children in Poverty (best):

Of the ten states in the United States with the lowest percentage of children in poverty, educators paddle children in two of them.

Those paddling states are: Missouri, which has the 10th lowest child poverty rate (9th by percentage of students hit); and Indiana, which has the 8th lowest child poverty rate (15th by percentage of students hit).

The non-paddling states are: Maryland, which has the lowest child poverty rate in the nation; New Hampshire, which has the 2nd lowest child poverty rate; Virginia, which ranks 3rd lowest in child poverty; Maine, which ranks 4th lowest in child poverty; Minnesota and Iowa, which are tied with the 5th lowest child poverty rate; Connecticut, which ranks 6th lowest, and Alaska, which ranks 9th lowest.

Percentage of Births to Unwed Mothers (worst):

Of the ten states in the United States with the highest percentage of births to unwed mothers, educators paddle children in nine of them.

Those states are: Mississippi, which has the highest percentage of births to unwed mothers in the nation (also 1st by percentage of students hit); Louisiana, which has the 2nd highest percentage of births to unwed mothers in the nation (6th by percentage of students hit); New Mexico, which has the 3rd highest percentage of births to unwed mothers (10th by percentage of students hit); South Carolina, which has the 4th highest percentage of births to unwed mothers (11th by percentage of students hit); Arizona, which has the 5th highest percentage of births to unwed mothers (18th by percentage of students hit); Florida, which has the 6th highest percentage of births to unwed mothers (12th by percentage of students hit); Delaware, which has the 7th highest percentage of births to unwed mothers (16th by percentage of students hit); and Georgia, which has the 8th highest percentage of births to unwed mothers (7th by percentage of students hit).

The non-paddling state is: New York, with the 9th highest percentage of births to unwed mothers.

Percentage of Births to Unwed Mothers (best):

Of the ten states in the United States with the lowest percentage of births to unwed mothers, educators paddle children in two of them.

Those paddling states are: Colorado, which ranks 46th by percentage of births to unwed mothers (18th by percentage of students hit); and Idaho, which ranks 48th by percentage of births to unwed mothers (tied at 18th by percentage of students hit).

The non-paddling states are: Utah, which has the lowest percentage of births to unwed mothers in the nation; New Hampshire, which ranks 47th by percentage of births to unwed mothers; Minnesota, which ranks 45th; Massachusetts, which ranks 44th; Nebraska, which ranks 43rd; Iowa, which ranks 42nd; and Washington and Vermont, tied at 40th.

State Health Rankings (worst):

Of the states with the ten worst state health rankings, educators paddle children in eight of them.

Those paddling states are, in reverse order by state health ranking: Louisiana, which ranks 50th (the worst in the nation) by state health ranking (6th by percentage of students hit); Mississippi, which ranks 49th out of 50 by state health ranking (1st by percentage of students hit); South Carolina, which ranks 48th by state health ranking (11th by percentage of students hit); Florida, which ranks 46th by state health ranking (12th by percentage of students hit); Alabama, which ranks 45th by state health ranking (3rd by percentage of students hit); Tennessee, which ranks 44th by state health ranking (4th by percentage of students hit); Arkansas, which ranks 42nd by state health ranking (2nd by percentage of students hit); and Oklahoma, which ranks 41st by state health ranking (5th by percentage of students hit).

The non-paddling states are: West Virginia, which ranks 47th by state health ranking; and Nevada,

which ranks 42nd by state health ranking.

State Health Rankings (best):

Of the states with the ten best state health rankings, educators paddle children in one of them.

That paddling state is: Colorado, which ranks 10th by state health ranking (18th by percentage of students hit). The non-paddling states are: Minnesota, which ranks 1st by state health ranking; New Hampshire, which ranks 2nd by state health ranking; Utah, which ranks 3rd by state health ranking; Connecticut, which ranks 4th by state health ranking; Massachusetts, which ranks 5th by state health ranking; Vermont, which ranks 6th by state health ranking; Hawaii, which ranks 7th by state health ranking; and Iowa and Maine, which are tied at 8th by state health ranking.

Age-Adjusted Death Rate (worst):

Of the ten states with the highest age-adjusted death rates, educators paddle children in nine of them.

Those states are, in order by age-adjusted death rate, highest to lowest: Mississippi, which has the highest age-adjusted death rate in the nation (also 1st by percentage of students hit); Tennessee, which has the 2nd highest death rate (4th by percentage of students hit); Louisiana, which has the 3rd highest death rate (6th by percentage of students hit); Alabama, which has the 4th highest death rate (3rd by percentage of students hit); Kentucky, which has the 6th highest death rate (14th by percentage of students hit); Georgia, which has the 7th highest death rate (also 7th by percentage of students hit); Arkansas, which has the 8th highest death rate (2nd by percentage of students hit); South Carolina, which has the 9th highest death rate (11th by percentage of students hit); and Oklahoma, which has the 10th highest death rate in the nation (5th by percentage of students hit).

The non-paddling state is: West Virginia, which has the 5th highest age-adjusted death rate in the nation.

Age-Adiusted Death Rate (best):

Of the ten states with the lowest age-adjusted death rates, educators paddle children in one of them.

That paddling state is: Colorado, which has the 6th lowest age-adjusted death rate in the nation (18th by percentage of students hit).

The non-paddling states are: Hawaii, which has the lowest age-adjusted death rate in the nation; California, which has the 2nd lowest death rate; North Dakota, which has the 3rd lowest death rate; Minnesota, which has the 4th lowest death rate; Utah, which has the 5th lowest death rate; Nebraska, which has the 7th lowest death rate; Connecticut, which has the 8th lowest death rate; Iowa, which has the 9th lowest death rate; and Washington, which has the 10th lowest death rate.

ANALYSIS

There is a clear statistical correlation between corporal punishment in public schools and larger societal outcomes. *Specifically, there is a strong correlation between those states that use corporal punishment in public schools and negative societal outcomes, and there is an equally strong correlation between those states that have banned corporal punishment in public schools and positive societal outcomes.* As was stated earlier, if there were no correlation between corporal punishment in public schools and larger societal outcomes, one would expect an even distribution of paddling and non-paddling states within each tier of each category. In other words, within any random sample of ten states, including the "best ten" and the "worst ten," one would expect 4.6 paddling states and 5.4 non-paddling states to appear.

Clearly that is not the case. *The data presented in this study show that there is clearly a correlation between the use of corporal punishment in public schools and negative social pathologies.* In category after category, the "worst ten" states are disproportionately represented by paddling states. Instead of 4.6 (or 4 to 5, in real terms) paddling states appearing in the bottom tier, or "worst ten," of each category, we consistently see seven, eight, nine, and even ten paddling states appearing there. And in the top tier ---the "best ten" tier ---we consistently see non-paddling states dominating, and we see zero, one, and, in rare cases, two paddling states appearing. Again, there is clearly a correlation between corporal punishment in public schools and negative social pathologies.

In layman's terms, this correlation means the following: non-paddling states like Minnesota have relatively better test scores, lower drop-out rates, lower poverty rates, and better health care. Paddling states like Louisiana have relatively lower test scores, higher drop-out rates, higher poverty rates, and lower-quality health care. Those findings cannot be more clear.

It is important to note that correlation does not equal causation. For example, the fact that paddling states have relatively higher death rates obviously does not mean that people are dying at a higher rate directly because of school paddlings. The question of why there is in fact a correlation between corporal punishment in schools and social pathologies is, for the most part, beyond the scope of this study.

Having said that, the following is a very brief hypothosis as to why there may be such a strong correlation between corporal punishment in schools and negative social pathologies. ..There is existing research, such as that of Dr. Murray Strauss of the University of New Hampshire, that has linked physical punishment of children to increased aggression and anti-social activity. This research suggests that children who are physically punished experience long-term feelings of anger, fear, humiliation, and withdrawal more than children who are not physically punished. If one accepts these results, it is not a great leap to suggest that children who are punished violently at school on a regular basis probably display aggression and anti-social behavior, and experience feelings of anger, fear, humiliation, and withdrawal, with far greater frequency and intensity than other children. Children in this stressful, negative social environment find it relatively more difficult to learn and succeed in school ---this would explain the paddling states' relatively lower test scores and higher dropout rates. And once educational achievement suffers, other aspects of society suffer proportionately. Economic development suffers, for example, and in turn, education and health care suffer. This in turn makes it even harder to grow the economy, and so on. In short, the society becomes locked in a cycle of dysfunction.

Of course, many factors account for any given society's relative level of success or dysfunction, and

the suggestion is not that school paddling in and of itself causes economic stagnation and societal dysfunction. However, to the extent that education is the foundation of any society's success, and to the extent that school paddling has created a hostile, violent, negative educational environment for generations of children in states where it is still used, it does not seem unreasonable to suggest that paddling is in fact at least one of the factors that contributes to the overall societal troubles that are clearly so prevalent in those states where the paddle is used.

In any case, it would be beneficial to have more research studying the possible links between violence directed en mass at children and subsequent societal consequences such as low educational achievement and poor economic growth. Again, the technical question of why exactly there is a strong correlation between corporal punishment and social pathologies is beyond the scope of this study. However, the hypothesis described above, along with the undeniable correlation presented in this study between paddling and pathology, should at the very least cause educators to question the effectiveness of paddling as a disciplinary method and to seek alternatives. In short, one way to be certain that paddling is not causing larger societal problems is simply to end the practice of paddling and to employ more positive disciplinary methods that have worked so well for so long in states such as Minnesota and Vermont. In an age when educators, parents, and politicians are desperately trying to reduce violence in schools in order to produce a more peaceful and functional society, it seems a no-brainer to begin this endeavor by banning the practice of state-sponsored, teacher-inflicted violence towards schoolchildren.

As was stated earlier, educators in paddling states often defend the practice of paddling by saying that it maintains the discipline necessary to create educational achievement and, by extension, a successful society. They further claim that in places where paddling has been banned, discipline and educational achievement have suffered. If nothing else, this study shows that that line of reasoning is simply absurd. Clearly, those states which have banned paddling altogether and which employ more positive disciplinary measures in the classroom achieve far greater educational success and have created far more functional societies than those states which still use the paddle. That fact is simply irrefutable.