

Preliminary Findings of ACLU “Teach Kids, Not Stereotypes” Campaign

PREPARED FOR
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Office for Civil Rights

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Executive Summary

This report represents the initial findings from the ACLU's multi-state "Teach Kids, Not Stereotypes" campaign. This initiative was launched in May 2012 to assess the growing trend in public education of separating boys and girls based on discredited science and gender stereotypes, such as the idea that boys are better than girls in math because boys' brains receive several daily "surges" of testosterone, whereas girls can perform well on tests only a few days per month when they experience "increased estrogen during the menstrual cycle."¹ Although our analysis of documents is ongoing with many more programs to be evaluated, our findings thus far demonstrate that many public school districts misapprehend the Department of Education's 2006 regulations under Title IX of the Education Amendments of 1972 relating to single-sex classes and have instituted programs based on sex-stereotyped instruction. As such, the 2006 regulations must be rescinded, the prior regulations must be reinstated, the Department must issue guidance explaining that programs based on stereotypes are impermissible, and the Department's enforcement efforts must be increased.

The "Teach Kids, Not Stereotypes" initiative seeks to gather information on the scope and characteristics of single-sex education programs, especially those in coeducational public schools across the country. To this end, ACLU affiliate offices around the country sent public records requests to states, school districts, and individual schools seeking documents related to the implementation of single-sex education programs in 15 states—Alabama, Florida, Idaho, Illinois, Indiana, Massachusetts, Maine, Missouri, Mississippi, North Carolina, South Carolina, Virginia, Washington, West Virginia, and Wisconsin. Our goals in releasing this information are to inform the public, educators, and school administrators at the state and local levels regarding the scope and character of single-sex education programs, and to inform policy decisions of the U.S. Department of Education Office for Civil Rights in its interpretation and enforcement of Title IX.

Our early findings demonstrate that single-sex education programs within coeducational schools are widely out of compliance with the stringent legal requirements governing separation of students on the basis of sex, mandated by the United States Constitution, Title IX of the Education Amendments of 1972, and the Department of Education's (ED) Title IX regulations.

Key findings from our investigation over the past 12 months include the following:

- Virtually all of the programs in the 21 districts profiled below were premised on the theory that "hardwired" physiological and developmental differences between boys and girls necessitated the use of different teaching methods in sex-separated classrooms;
- There is strong evidence from the documents produced and from news reports that teachers in the single-sex classes incorporated into their teaching stereotyped attitudes

about boys' and girls' purportedly different interests, talents, and capacities. For instance,

- Committee meeting notes of a community working group for single-sex programs in secondary schools in Pennsylvania documented a desire among the participants to ensure that students would experience “male-hood and female-hood defined space” exhibiting characteristics of “warrior, protector, and provider” for boys and giving girls “space/time to explore things that young women like [including] writing, applying and doing make-up & hair, art.”
- A Virginia school stated that “[b]oys prefer reading material that is non-fiction, or if fiction, adventure oriented. In math, boys can get interested in ‘pure’ math and geometry, without linking it to the real world applications. The female brain does not prefer such action. ... girls prefer reading fiction material that does not necessarily contain much action. In math, girls generally prefer a real world application that shows them why it is meaningful. They are generally not interested in ‘pure’ math for its own sake.”
- A school newsletter from Maine describes different routines for the sixth-grade girls’ and boys’ classes: “[Y]oung ladies have . . . a daily cup of cocoa as they read the Portland Press Herald and discuss local, national and global events,” while the boys’ class contained “an exercise area within the class and all the young men have the opportunity to exercise . . . [and] signed up with the NFL Experience,” a program sponsored by the National Football League aimed at encouraging daily physical activity.
- A Wisconsin school district collected materials that trained teachers to ask boys about literature, “What would you DO if...” while asking girls, “How might/would you FEEL if...?”; motivating boys with “hierarchy!!! Competition!!!” while motivating girls by getting them to “care”; and recognizing that boys like “[b]eing ‘On Top’ ... Being a Winner!!!” while girls like “[b]eing ‘Accepted’, liked, loved!!!”
- A significant number of the schools articulated no justification whatsoever for their programs, other than a belief that gender-differentiated teaching is its own good;
- Data and research relied on in support of the programs for the most part consisted of material that fell far short of accepted standards for valid educational research;
- Several programs were out of compliance with the requirements that participation in sex-separated programming be voluntary and that there be a substantially equal coeducational alternative available;
- Several programs that had been in place for at least two years appear to have failed to conduct any evaluation whatsoever of their efficacy, and none of the programs profiled complied with the requirement that the evaluation include an assessment of whether the program was based on sex stereotypes.

In light of these serious legal problems, we sent cease-and-desist letters to several school districts asking that they take steps to terminate programs operating in violation of the law. Some of that correspondence is available at our Web site, <http://www.aclu.org/womens-rights/teach-kids-not-stereotypes>. In other states, we continue to receive and review records.

The widespread legal violations uncovered by our investigation underscore the need for greater public accountability and oversight by state authorities, and for more enforcement efforts at the federal level. Specifically, the Department of Education should act swiftly to rescind the 2006 regulations that have led to a widespread misunderstanding of the requirements for implementation of single-sex education in public schools, to reinstate the prior regulations, and to provide immediate and much-needed guidance making clear that programs based on sex-stereotyped instruction violate Title IX and the Constitution.

Introduction

In recent years, largely based on widely debunked theories positing that boys and girls learn differently, numerous public school districts have introduced single-sex education programs, often seeking “quick-fix” solutions to the array of problems facing many public schools. This trend sharply accelerated in October 2006, when, over the objections of a wide range of stakeholders and advocacy organizations, the U.S. Department of Education announced new regulations under Title IX of the Education Amendments of 1972 that were supposed to clarify the standards pursuant to which public schools could implement single-sex schools and classrooms.² The regulations have led to broad implementation of single-sex classrooms in neighborhood public schools, in a manner contrary to both the Constitution and Title IX and even contrary to the regulations themselves. Estimates suggest that today at least 500 public schools in the United States have implemented single-sex instruction.³

There is no question that our country is facing an educational crisis. Too many of our schools are failing our students, especially poor students of color, and new strategies are desperately needed. But coeducation is not the problem, and single-sex education premised on stereotyping is not the solution. Separating the boys from the girls is not going to turn a struggling education system around.⁴

This report describes the characteristics of the “sex-stereotyped instruction” approach, and explains the fundamental legal flaws with this approach. It then seeks to expose the extent to which sex-stereotyped instruction has formed the basis of many of the single-sex public education programs operating across the country.

The widespread legal violations that our investigation has uncovered underscore the need for greater public accountability and oversight by local school districts and state authorities, and for more enforcement efforts at the federal level. Specifically, the Department of Education should act swiftly to rescind the 2006 regulations, which confused rather than clarified the requirements for implementation of single-sex education in public schools, and reinstate the prior regulations.⁵ At a minimum, the Department must provide immediate and much-needed guidance on the scope of schools’ legal obligations for compliance with Title IX and the Constitution, making clear that single-sex programs based on sex-stereotyped instruction violate the law. Additionally, the Department must increase its enforcement of these regulations, because our findings demonstrate that programs based on sex-stereotyped instruction are now widespread.

The “Sex-Stereotyped Instruction” Approach:

Many public single-sex education programs, like their chief proponents, rely for their justification on faulty theories about supposed “hard-wired”⁶ differences between boys’ and girls’ brains and development. These sources espouse the view that boys and girls learn and

develop so differently that they should be educated using radically different teaching techniques. As a recent article in the prestigious journal *Science* noted, “[a]lthough scientists have debunked many such claims as ‘pseudoscience,’ this message has yet to reach many educators who are implementing such recommendations in single-sex classes within coeducational schools.”⁷

For example, Leonard Sax, the founder of the National Association for Single-Sex Public Education (NASSPE), has argued that because of physiological differences in how boys and girls hear sounds, teachers in boys’ classrooms should “speak loudly and in short, direct sentences with clear instructions: ‘Put down your papers. Open your books. Let’s get to work! Mr. Jefferson, that includes you,’ ” while in the girls’ classrooms, they should “speak much more softly, using more first names with more terms of endearment and fewer direct commands: ‘Lisa, sweetie, it’s time to open your book. Emily, darling, would you please sit down for me and join this exercise?’ ”⁸ He recommends that because of differences in the ways boys and girls process emotion, teachers can ask girls to role-play characters from any kind of literature as a fruitful method of analysis, while boys should only be assigned books with “strong male characters who take dramatic action to change their world” and should avoid “weak, disabled male characters [who] are helpless to change their miserable destiny.”⁹ He also argues that because of sex differences in learning in stressful situations, “[m]any young boys are energized by confrontation and by time-constrained tasks,” while “removing the time constraints and having the girls kick off their shoes . . . [is] a good way to keep stress from impairing girls’ test performance.”¹⁰

Michael Gurian, cofounder of the Gurian Institute, has claimed that boys are better than girls in math because their bodies receive daily surges of testosterone, while girls have similar skills only “a few days per month” when they experience “increased estrogen during the menstrual cycle”; that boys are abstract thinkers and so are naturally good at things like philosophy and engineering, while girls are concrete thinkers and should be given objects that they can touch to learn about math and science; and that boys should be given Nerf baseball bats with which to hit things so they can release tensions during class.¹¹

Another proponent, David Chadwell, suggests teachers have boys predict their grades before they turn in tests and projects, provide justifications for their predictions, and reflect on any differences when the grade is announced, while his instruction for girls is that they be provided with colored pens, pencils, markers, and paper, to be used while taking notes and doing projects, although teachers must be careful not to allow girls to spend more time on decorating than quality content.¹²

These are merely re-packaged sex stereotypes. There is no evidence that brain differences translate into a need for different instructional approaches for boys and girls.¹³ A recent review of the literature by a multidisciplinary team of academics and experts concluded single-sex education programs are “often justified by weak, cherry-picked, or misconstrued scientific claims rather than by valid scientific evidence.”¹⁴ In fact, the behavioral, psychological, and cognitive differences *among* the individual members of any group of girls or any group of boys are much greater, and more relevant from an instructional standpoint, than the differences

between boys and girls as groups.¹⁵ There are plenty of girls who can't sit still and prefer sports to doing each other's hair; there are plenty of quiet, artistic boys. Under the sex-stereotyped instructional agenda, these students are forced into a classroom designed around a stereotype that they do not fit.

What is more, no valid evidence establishes a causal connection between single-sex education in public primary and secondary schools and better educational outcomes.¹⁶ Studies purporting to establish such a link have been widely criticized as methodologically flawed on numerous grounds—for example, because they fail to compare the children in a given study sample with a comparable coeducational cohort, or to control for factors such as socioeconomic status, class size, resources, parental involvement, sample bias, the prior achievement levels of students, or other similar factors.¹⁷ In fact, those literature surveys and studies that have taken such variables into account in assessing public primary and secondary education have concluded that “[t]here is no well-designed research showing that single-sex education improves students’ academic performance, but there is evidence that sex segregation increases gender stereotyping and legitimizes institutional sexism.¹⁸ While there is no doubt that there are some successful examples of single-sex schools, there is also no evidence that it is the single-sex structure of these schools that has made them successful.¹⁹

What the Law Requires:

The Equal Protection Clause of the U.S. Constitution prohibits separation of students based on sex in public education unless the government has an “exceedingly persuasive justification” for the separation, and only permits it where it is “substantially related to the achievement” of important educational needs,²⁰ rather than based on “overbroad generalizations about the different talents, capacities, or preferences of males and females.”²¹ Title IX of the Education Amendments of 1972, which applies to both public and private educational institutions that receive federal funds, requires that students should have equal access to educational programs, regardless of their sex.²²

Although the Department of Education amended its regulations implementing Title IX in 2006 to allow schools to offer single-sex programs under certain limited circumstances, the regulations still “make clear that single-sex classes are the exception rather than the rule and place the burden on recipients wishing to establish such classes to show that they have met the criteria specified in the regulations.”²³ The regulations tolerate single-sex classes only where

Each single-sex class or extracurricular activity is based on the recipient’s important objective [established at the program’s inception]

(A) To improve educational achievement of its students, through a recipient’s overall established policy to provide diverse educational opportunities [of which single-sex education cannot be the sole example], provided that the single-sex nature of the class or extracurricular activity is substantially related to achieving that objective; or

(B) To meet the particular, identified educational needs of its students, provided that the single-sex nature of the class or extracurricular activity is substantially related to achieving that objective.²⁴

Whichever of these objectives is selected, the program must be implemented evenhandedly, enrollment in single-sex classes must be “completely voluntary,” and the program must offer a substantially equal coeducational alternative.²⁵ Single-sex classes may not “rely on overly broad generalizations about the different talents, capacities, or preferences of either sex.”²⁶

Methodology:

In response to widespread reports of single-sex education programs that had adopted the sex-stereotyped instruction theory, we sought to identify and gather public information from single-sex education programs in states across the country and to analyze their compliance with the applicable legal requirements.

We analyzed these single-sex educational programs based primarily on documents produced by the school districts themselves.²⁷ We sent requests for documents describing and explaining single-sex public educational programs²⁸ to schools and school districts in 15 states (Alabama, Florida, Idaho, Illinois, Indiana, Massachusetts, Maine, Mississippi, Missouri, North Carolina, South Carolina, Virginia, Washington, West Virginia, and Wisconsin) under each state’s freedom of information laws. These self-reported documents were supplemented where possible by publicly available information about the programs, such as news articles and material available on school or school board/district websites.²⁹

This report is preliminary. Our review continues as we identify new programs, and as additional records are submitted to us.³⁰

Major Findings:

Our early findings demonstrate that, in addition to violating Title IX itself, single-sex education programs within coeducational schools are widely out of compliance with the stringent legal requirements governing separation of students on the basis of sex under both the Constitution and ED’s regulations implementing Title IX. Schools and districts generally failed to justify these programs adequately at their inception, and specifically, failed to show that single-sex classes are substantially related to improving academic outcomes as part of an established policy of offering diverse educational options, or substantially related to meeting the particular, identified needs of students.³¹ In addition, several schools or districts failed to make enrollment in the classes “completely voluntary” or to offer a substantially equal coeducational alternative.³²

Above all, there is strong evidence from the documents produced and from news reports that teachers in the single-sex classes incorporated stereotyped attitudes about boys’ and girls’ purportedly different interests, talents, and capacities into their teaching.

Inadequate Justification: The schools and districts profiled below by and large failed to meet legal requirements to justify their programs under either the Constitution or the federal ED regulations. By far the most frequently recurring “justification” for these programs rested on gender stereotypes. (Running a distant second was the justification that boys and girls in coeducational settings “distract” each other.)

Where schools and districts produced information about their reasons for implementing single-sex classes and the research on which their programs were based, the work of Leonard Sax and NASSPE occurred over and over again. In materials attempting to convince parents, fellow educators, and/or school boards of the benefits of single-sex classes, numerous school districts nationwide³³ reproduced in full the following points developed by Sax³⁴:

- **The Brain Develops Differently**
GIRLS—the language areas of the brain develop before the areas used for spatial relations and for geometry.
BOYS—it is the other way around.
Teaching that ignores this difference will produce boys who can’t write and girls who think they’re “dumb at math.”³⁵
- **The Brain is Wired Differently**
GIRLS—emotion is processed in the same area of the brain that possesses language. So, it’s easier for most girls to talk about their emotions.
BOYS—The brain regions involved in talking are separate from the regions involved in feeling. The hardest question for a boy to answer is, “Tell me how you feel.”³⁶
- **Girls Hear Better**
The typical teenage girl has a sense of hearing seven times more acute than a teenage boy
That’s why daughters complain that their fathers are shouting at them. That’s why the boy in the back of the classroom whose soft-spoken teacher calls on him responds by saying, “Huh?”³⁷
- **Girls and Boys Respond Differently to Stress**
GIRLS—Stress impairs learning
BOYS—Stress enhances learning. *This is true in every mammal that scientists have studied.*³⁸

Other schools simply failed to offer any justification at all for implementing single-sex programs, or offered justifications that were insufficient to meet the requirements of the ED regulations. Virtually none of the districts described below attempted to claim that they offered many diverse educational experiences to their students, of which single-sex programs were just one. Virtually none of the districts described below attempted to claim that they implemented single-sex programs to meet particular, identified needs of students.³⁹ Rather, despite the requirement under the regulations that “each” single-sex class must be justified individually,⁴⁰ most schools

included in this report offered or aspired to offer single-sex classes in every grade *and* in every academic subject taught at the school, regardless of the emotional and intellectual range between the oldest and youngest students or the different intellectual demands of the subjects taught.

Gender-Differentiated Teaching in the Classroom: While little documentary information was available conclusively demonstrating what techniques were actually employed in the classrooms, the information received strongly suggests that gender-differentiated teaching was a central component of the single-sex programs profiled below. This was apparent from the materials presented on teacher trainings that were conducted either in preparation for the programs' implementation or in the course of their operation. In particular, numerous schools sent their teachers and administrators to NASSPE conferences for training.

Several of the programs described below followed Sax's recommendations for establishing distinct physical environments and classroom configurations for boys' and girls' classrooms, complying with his suggestion that boys and girls succeed best when classrooms are kept at different temperatures, painted different colors, and lit differently. For example, at Foley Intermediate School in Baldwin County, Alabama, "[t]he walls of the boys' classroom are painted blue, the light bulbs emit a cool white light and the thermostat is set to 69 degrees. In the girls' room, by contrast, the walls are yellow, the light bulbs emit a warm yellow light and the temperature is kept six degrees warmer."⁴¹

Some schools followed Sax's advice that girls should be seated in circles or facing one-another, so as to promote eye contact and cooperation, while boys should be seated side-by-side, to avoid eye contact, which purportedly promotes confrontation in boys.⁴² They also followed Gurian's recommendation that boys be permitted to move around the classroom and work with stress balls, rather than be anchored at their desks, in part by furnishing the boys' rooms with bean-bag chairs, bouncy balls, and the like.⁴³

Finally, there is strong evidence from the documents and from news reports that teachers in the single-sex classes incorporated stereotyped attitudes about boys' and girls' purportedly different interests, talents, and capacities into their teaching. For instance,

- Committee meeting notes of a community working group for single-sex programs in secondary schools in Pennsylvania documented a desire among the participants to ensure that students would experience "male-hood and female-hood defined space" exhibiting characteristics of "warrior, protector, and provider" for boys and giving girls "space/time to explore things that young women like [including] writing, applying and doing make-up & hair."⁴⁴
- A Virginia middle school, while polling its teachers on whether they preferred to teach boys or girls, stated that "[b]oys prefer reading material that is non-fiction, or if fiction, adventure oriented. In math, boys can get interested in 'pure' math and geometry,

without linking it to the real world applications. The female brain does not prefer such action. ... girls prefer reading fiction material that does not necessarily contain much action. In math, girls generally prefer a real world application that shows them why it is meaningful. They are generally not interested in 'pure' math for its own sake."⁴⁵

- A school newsletter from Maine describes different routines for the sixth-grade girls' and boys' classes: "[Y]oung ladies have . . . a daily cup of cocoa as they read the Portland Press Herald and discuss local, national and global events," while the boys' class contained "an exercise area within the class and all the young men have the opportunity to exercise . . . [and] signed up with the NFL Experience," a program sponsored by the National Football League aimed at encouraging daily physical activity.⁴⁶
- A Wisconsin school district collected materials that trained teachers to ask boys about literature, "What would you DO if..." while asking girls, "How might/would you FEEL if...?"; motivating boys with "hierarchy!!! Competition!!!" while motivating girls by getting them to "care"; and recognizing that boys like "[b]eing 'On Top' ... Being a Winner!!" while girls like "[b]eing 'Accepted', liked, loved!!!"⁴⁷

Voluntariness/Coeducational Alternative: Many programs failed to make their single-sex programs voluntary. Several of the districts detailed below simply engaged in wholesale, involuntary segregation of their students by sex, with no coeducational alternative offered at all. Several more violated the voluntariness requirement by making single-sex education their default assumption, forcing students and parents to request affirmatively to be removed from such programs. Even where a coeducational program was technically offered, there were questions as to whether such programs were substantially equal given that it sometimes appeared that special education students or limited English proficiency students had been excluded from the single-sex classes. And even where single-sex programs were voluntary and parents and students had to actively opt in, the information provided to parents about these programs frequently promoted the sex-stereotyped instruction theory with such zeal and conviction that any parent accustomed to relying on the expertise of his or her children's educators would have found these classes difficult to resist.

Flawed Evaluations: For the most part, the programs profiled appear to have failed to conduct any evaluation whatsoever of the efficacy of their single-sex programs. Although in a few cases genuine attempts were made to assess program efficacy, and it was sometimes difficult to determine from the documents produced what methodology was employed, our analysis suggests that the methods used generally contained significant flaws, including, among other things, reliance on self-reporting of success rates and satisfaction, failure to compare results with coeducational cohorts, and use of surveys with leading questions. Significantly, none of the programs profiled complied with the requirement that the evaluation include an assessment of whether the program was based on sex stereotypes.

Conclusion: Tempting though it may be to believe that the inexpensive and cosmetic procedures touted by these programs will solve the problems of our schools, in the end they are simply a distraction from the real and difficult work of improving education. Moreover, sex-stereotyped instruction conveys the message to students that there are particular ways “normal” boys or girls ought to think or behave.⁴⁸ This message is inherently detrimental to any student who does not conform to gender stereotypes, and is also detrimental to those who do conform because they are deprived of an opportunity to explore other ways to think or act.

The widespread legal violations uncovered by our investigation underscore the need for greater public accountability and oversight by state authorities, and for more enforcement efforts at the federal level. Specifically, the Department of Education should act swiftly to rescind the 2006 regulations that have led to a widespread misunderstanding of the requirements for implementation of single-sex education in public schools, to reinstate the prior regulations, and to provide immediate and much-needed guidance making clear that programs based on sex-stereotyped instruction violate Title IX and the Constitution.

Instead of spending resources, time, and effort to separate students in our public schools on the basis of their sex, we need to focus on evidence-based interventions. Research has shown that effective schools, especially for low-income students of color, consistently share strong, positive relationships between teachers and students; high expectations for students; a personalized learning environment with mentors, counseling, and other supports; high teacher quality; high parental involvement; and strong but not necessarily authoritarian leaders.⁴⁹ We should focus on what we know works, rather than depriving our children of the opportunity to learn with and from a diverse group of students.

Following are detailed summaries of the legal problems we identified in specific single-sex programs in 11 states. All supporting documentation is on file with the ACLU unless otherwise noted, and copies are available upon request.

Findings from Individual States/School Districts

ALABAMA*

Baldwin County: Foley Intermediate School

Program Description: Foley Intermediate School has had both single-sex and coeducational fourth- and fifth-grade classrooms since 2004; Baldwin County has provided documentation about these programs up to 2009.

Justification: According to documentation provided by the county, the single-sex classrooms were intended to respond to a concern about boys as a group, particularly minority boys, having lower test scores than girls. However, rather than being based on the individualized needs of students, the Foley Intermediate School single-sex programs are based on gross, uniformly applied gender stereotypes. The proposal for the program, which cited heavily to articles written by or quoting Gurian and Sax, argued that single-sex education was necessary because “brain research” shows that boys are more impulsive and competitive, and therefore are at a disadvantage in school. “ ‘Men and boys are naturally assertive. If they cannot find socially acceptable ways in which to direct that assertiveness, they will channel it into anti-social outlets. Schools need to deal with this reality, rather than closing their eyes and hoping masculinity will go away.’ ”⁵⁰

Gender-Differentiated Teaching: The faculty for the program received training from Leonard Sax.⁵¹ As described above, paint colors, room temperatures, and lighting types conform to Sax’s instructions.⁵² A newspaper article chronicling a day at Foley describes the boys’ class

* For information about Lawrence County, Alabama, which agreed to end single-sex classes in public schools after being notified by the American Civil Liberties Union and the ACLU of Alabama that its single-sex programs were illegal and discriminatory in 2009, see Press Release, ACLU, Alabama School District Agrees To End Illegal Sex Segregation (Jul. 6, 2009), available at <http://www.aclu.org/womens-rights/alabama-school-district-agrees-end-illegal-sex-segregation-1>. The Mobile County, Alabama School System also agreed to cease its single-sex programs in public schools after being notified by the American Civil Liberties Union that its programs were illegal and discriminatory in 2009; see Press Release, ACLU, Alabama School District Agrees to End Illegal Sex Segregation (Mar. 25, 2009), available at <http://www.aclu.org/womens-rights/alabama-school-district-agrees-end-illegal-sex-segregation> and Press Release, ACLU, ACLU Warns Alabama School District That Its Mandatory Sex Segregation Program is Illegal and Discriminatory (Nov. 12, 2008), available at <http://www.aclu.org/womens-rights/aclu-warns-alabama-school-district-its-mandatory-sex-segregation-program-illegal-and-d>.

Additionally, Chilton County, Alabama, Dothan City, Alabama, and St. Clair County, Alabama also ceased public single-sex educational programs after the ACLU and the ACLU of Alabama asked eight Alabama school districts to make public under the Alabama Open Records Act any and all documents relating to single-sex policies in public schools from the past two years. Letter from John Hollis Jackson, Jr., Jackson & Jackson, LLP, to Allison Neal, ACLU of Alabama (Feb. 16, 2009) (Chilton County); Letter from Jere C. Segrest, Hardwick, Hause, Segrest & Walding, to Allison Neal, ACLU of Alabama (Jan. 6, 2009) (Dothan City); Letter from William J. Trussell, Trussell & Funderberg, P.C., to Allison Neal, ACLU of Alabama (May 5, 2009) (St. Clair County); see Press Release, ACLU, ACLU Asks Alabama School Districts to Disclose Documents on Sex Segregated Programs (Dec. 15, 2008), available at <http://www.aclu.org/womens-rights/aclu-asks-alabama-school-districts-disclose-documents-sex-segregated-programs>.

discussing the book *Hatchet*, and “how annoying it is, when you’re out hunting, to be swarmed by yellow flies,” while the girls’ class did a science experiment about density with oil and water and observed that “when you’re doing the dishes after your mother makes fried chicken, the oil always settles on top of the water in the sink.”⁵³

Flawed Evaluations: Although the school claims that evaluations demonstrate that the program has been an academic and disciplinary success, these claims are difficult to evaluate. The school principal noted that the parents who signed their children up for single-sex classes were already the most involved parents and that their children were the most highly motivated students.⁵⁴ The school also admits that during the first year, the few Latino/a students in the single-sex classes spoke some English, raising the question of whether students with no English skills, if any, were placed in other classes. The school also observed that the opt-in requirement instituted at the end of the previous school year effectively prevented the single-sex classes from containing any students who had moved to Baldwin County over the summer, including those moving from foreign countries.⁵⁵ Finally, the school also admits that the single-sex program has involved the highest-performing teachers as well.⁵⁶ Therefore, it is by no means clear that it was the single-sex nature of the program, rather than other factors, that contributed to any improvements achieved.

Other Issues: Sex stereotypes appear to have been applied not only to the students, but also to the teachers. In the proposal for its single-sex program, Foley claimed that “[t]he Foley Intermediate Faculty has observed that by requiring the same learning styles of boys and girls, the boys sometimes have difficulty in a female teacher’s classroom. We have also recognized that male teachers use different teaching methods and allow more movement than female teachers.”⁵⁷ During the school’s first year, only male teachers taught male classes and female teachers taught female classes⁵⁸ on the grounds that the point of the project was to “provide opportunities for at-risk minority boys to benefit from having a male teacher.”⁵⁹ (The school was not able to sustain this practice in later years due to lack of personnel.⁶⁰) In a presentation made by the school’s principal to NASSPE in 2008, she noted that “[t]he Foley Intermediate School faculty’s favorite result of the single gender study is that we are not sexually harassing each other in faculty meetings when we point out male behavior and female behavior. We are just identifying scientific differences between men and women and using each other as examples.”⁶¹

Birmingham: Huffman Middle School

Program Description: Huffman Middle School has operated single-sex classes since at least 2010. All students enrolled in Huffman are separated by sex for all academic classes and integrated for gym and related arts classes. Even during lunch, boys and girls are required to sit by homeroom, resulting in sex-separated seating.⁶²

Justification: Documents produced in response to our open records request contained no trace of any pre-implementation evaluation of school- or district-specific student performance or

need, nor any data or argumentation suggesting that the educational needs of Huffman Middle School students necessitated the separation of students by sex.⁶³ No evidence was produced suggesting that the District had an established policy to improve educational achievement by offering a diversity of educational options. It therefore appears that the decision to institute these programs was taken by the school without any articulated mission, goal, or justification, and with no deliberation, public participation, or oversight by the district.

Gender-Differentiated Teaching: What few records exist regarding sex-separated programs in the Birmingham City Schools strongly suggest that those programs were informed by archaic and legally impermissible gender stereotypes, and that those stereotypes permeated the school environment. Specifically, the district has relied on the work of Michael Gurian.⁶⁴ Guidelines for classroom instruction included the admonition that boys, but not girls, should be inculcated with “heroic” ideals and behavior.

Voluntariness: All of the core academic classes provided at Huffman are single-sex, and no coed alternative is available. The district provided no forms informing parents of the existence of single-sex programs at Huffman and providing them an opportunity to opt in or opt out on behalf of their children. Rather, a child who does not wish to participate in the single-sex program would likely have to leave the school entirely, and transfer to another school⁶⁵—if they were even aware that such an option was available.

Flawed Evaluations: A review of four single-sex programs (including Huffman) in Birmingham conducted by its testing department concluded that in reading and mathematics, “[t]here is no definitive proof that the percentage of students scoring proficient is significantly impacted by students being taught in same gender classroom settings,”⁶⁶ yet the program continues. No evidence was produced suggesting that any evaluation was conducted to ensure that the program did not perpetuate sex stereotypes

Tallapoosa County: Council Middle School

Program Description: The Tallapoosa Board of Education operated mandatory single-sex academic classes for all students throughout the entire middle school from 2009 to the end of the 2011-2012 school year.⁶⁷ The program was terminated in November 2011 following a cease-and-desist letter from the ACLU of Alabama.

Justification: Not a single page of documentation dating from before, during, or after the program demonstrated that any analysis whatsoever, much less any individualized assessment of educational need, was performed to justify this program. No evidence was produced demonstrating the County had an established policy to improve educational achievement by offering a diversity of educational options. When contacted by phone, the school district explained that the program had been implemented because of a generalized concern with disciplinary problems and a belief that “hormones” were to blame for them.⁶⁸

Voluntariness/Coeducational Alternative: No coeducational alternative was available to students.⁶⁹

Flawed Evaluations: No evaluation of the program's efficacy was provided except regarding disciplinary referrals, nor was any evaluation provided demonstrating that the program had attempted to ensure that it did not perpetuate sex stereotypes.

FLORIDA

Hernando County: Westside Elementary School

Program Description: Since the 2007-08 school year, Westside Elementary School in Hernando County has offered one single-sex class each for girls and boys and between four and six coeducational classes in each grade, from kindergarten through fifth grade.⁷⁰ Parents are told to indicate whether they are “strongly in favor” of their children participating in the single-sex classes or that they prefer that their children be placed in a coeducational class.⁷¹ Students in the single-sex classes mingle with other students for recess, lunch, and activities.⁷²

Justification: No documents were produced demonstrating that the school district analyzed student performance at the group or individual level or reviewed any literature on single-sex education before the single-sex program in this school was instituted. Rather, the school simply told the school board that “[i]t is our belief that some students will benefit academically and have a greater chance for success when grouped in this manner.”⁷³

No evidence was produced suggesting that the district had an established policy to improve educational achievement by offering a diversity of educational options.

Documents created after the program began state that the goal of the program is “[t]o create an educational environment conducive to gender learning styles that will result in increased student achievement and strong social skills,” and indeed the program is premised on the concept that “scientific research indicating that the brains of girls and boys work differently and therefore, gender classes differentiate instruction in the core curriculum areas according to how the brain learns.”⁷⁴ The school claims that “[r]ecent research indicates that girls and boys see the world differently—not only figuratively but literally. Some examples are: Retinas—girls and boys see different images when looking at the same image; Hearing—girls have more sensitive hearing than boys.”⁷⁵ Leonard Sax is quoted liberally throughout the program’s foundational documents, and all teachers are required to be trained in NASSPE gender-specific teaching techniques.⁷⁶

Flawed Evaluations: Westside Elementary did attempt to assess the academic success of its program at several points, but never reviewed the program for whether it relied on overly broad generalizations about the different talents, capacities, or preferences of boys and girls. Indeed, one of the “strengths” it listed in a self-evaluation was its “[i]nstructional delivery of curriculum customized to fit specific gender.”⁷⁷ The school attempted to take student, parent, and teacher satisfaction surveys, which were marred by leading questions in favor of the single-sex program.⁷⁸ The school also attempted to compare the progress of students who had been in the single-gender program for three years with students who had not, while admitting that the comparison was not useful because of districting changes (nor was any information provided about special education or limited English students, parent educational involvement, or teacher

qualifications).⁷⁹ Although data were limited, the single-sex classes did not demonstrate superior academic achievement over the coeducational classes.

Lee County: Orangewood Elementary School

Program Description: Orangewood Elementary School has run a single-sex classroom for fifth-grade boys since the 2006-07 school year.⁸⁰

Justification: In its first year, this program was targeted at boys and the justification for the program was described as “better meet[ing] the needs of our adolescent boys who needed to develop leadership skills and maturity while focusing on academic excellence.”⁸¹ A Unique Program Abstract presented to the Lee County District School Board claimed that “[r]esearch shows that students in this age bracket perform at a higher level when the opposite gender is removed. This lowers peer pressure and self esteem is boosted. Academic achievement follows.”⁸² The “research” cited for this statement included an article published by NASSPE⁸³ and a Newsweek article that extensively quoted Michael Gurian about boys’ supposed needs for bright lights and loudness in the classroom.⁸⁴ Other research produced dating from prior to the initiation of this program included articles about benefits of single-sex education for girls, which was not relevant to the boys’ class that was implemented,⁸⁵ and an article describing a “landmark California study” showing that teachers in single-sex schools “tend to unintentionally reinforce traditional stereotypes about gender.”⁸⁶

Although the boys’ class handbook and a news article about the class provided by the school assert that students for the boys’ class were “invited . . . based on social, academic, and behavioral criteria,”⁸⁷ the school states that participation in the program was strictly voluntary and that all boys in the upcoming class were invited to join during the first year.⁸⁸ It is unclear whether the school actually invited particular students to participate in the program before allowing other interested students into the class. The school provided no documentation at all as to what criteria it applied in making any such invitations, or whether there were any girls that met the same social, academic, or behavioral criteria.

Coeducational Alternative: Correspondence from the school’s principal to the ACLU states that the boys’ class is “substantially equal” to the fifth-grade coeducational classes in “curriculum, textbooks, technology and teacher certification.”⁸⁹ However, the boys’ class is listed as having only twelve students,⁹⁰ which is low for an elementary school classroom, and no information was provided as to the sizes of the coeducational classrooms.

An all-girls’ class was instituted for the 2007-08 school year, but it was reported that the girls were not happy being separated from the boys, and that interest since then has been insufficient to operate a girls’ class even though the option is reported to have been offered every year.⁹¹ No forms or correspondence were provided in support of this claim.

Flawed Evaluations: Although the school claimed that its all-boys' classes had shown academic and disciplinary improvements,⁹² it did not provide either raw data or any reports or analysis to support this claim. No evidence was produced suggesting that any evaluation was conducted to ensure that the program did not perpetuate sex stereotypes.

Seminole County: Seminole High School

Program Description: Since the 2009-2010 school year, Seminole High School assigns all incoming ninth graders who are below grade proficiency on the Florida Comprehensive Assessment Test to single-sex English I classes.⁹³

Justification: The school's stated concern is that these students were at risk of failing to complete a high school diploma, and that placing these students into single-sex classes would "reduce distractions and increase student focus on improving their reading and writing skills, thereby increasing the chances for successful completion of high school."⁹⁴ The school produced no research supporting these statements. However, the school did indicate that it relied on several generalized articles about single-sex education, including irrelevant situations like single-sex science education or private single-sex Catholic schooling, as well as an article that stated that "[a]n explosion of research related to gender is exploring the possibility of gender differences in learning styles between male and female students."⁹⁵ In particular, while the school produced documents showing test scores for students who presumably "qualified" for the program, there was no showing that the reading skills of the students in question would benefit from single-sex classes as opposed to other types of teaching interventions.⁹⁶

Voluntariness: It appears that participation in the single-sex classes was by assignment, and was thus completely involuntary. Although the school provided a matrix of test scores to demonstrate how students were selected for the program, the school confirmed that it had no documentation whatsoever that apprised parents or students of single-sex classes, of their opportunity to opt into or out of such programs, or of any alternatives to such programs.⁹⁷

Flawed Evaluations: It appears that the school only collects disciplinary data for the single-sex classes; no evidence was produced suggesting that any evaluation was conducted to ensure that the program did not perpetuate sex stereotypes.⁹⁸

IDAHO

City of Middleton: Middleton Heights Elementary School

Program Description: The Middleton Heights Elementary School began separating students by sex for all academic classes in 2005; however, the grade levels with single-sex and co-ed class options have varied each year, depending on enrollment and teachers' willingness to teach single-sex classes.

Justification: Middleton Elementary has reported to its School Board that its program is based on the "premise that boys and girls learn differently, [and the] [p]urpose [is] to educate according to those differences."⁹⁹ However, school officials have also asserted that the program was initiated in 2005 in response to concerns about reading proficiency gaps between boys and girls. Principal Gilbert gave a presentation at the 2009 NASSPE conference entitled "Just Don't Say S-E-X: How to implement single-sex classrooms in a conservative rural district," explaining that she had leveraged the reading gap to begin steering the school toward single-sex classes for both boys *and* girls.¹⁰⁰

No evidence was produced, however, suggesting that students who were performing poorly were targeted for intervention or that any personalized assessment of individual educational needs of students was performed prior to the program's implementation; moreover, the purported reading proficiency gap would not justify the separation of students for all academic subjects.

Gender-Differentiated Teaching: The documentation provided also demonstrates that stereotypes were incorporated into the curriculum and instruction in the single-sex classrooms. Principal Gilbert informed the ACLU that seven teachers and administrators have attended NASSPE conferences, three have made presentations at those conferences,¹⁰¹ and that "some staff" have read and relied on several works by Gurian, Sax, and Chadwell, as well as other proponents of single-sex education.¹⁰² In a letter to parents in April 2006, Principal Gilbert explained that the "school has purchased a greater amount of reading material targeted at the interests of boys. When working in small groups or one-on-one we try to sit beside boys, shoulder to shoulder rather than making direct eye contact as preferred by girls. Boys tend to need a greater amount of personal space, so in some classrooms the desks have been moved apart to allow that space."¹⁰³ According to media reports on Middleton Heights, some of the differences between classes include letting boys exercise before a test; asking girls how a character feels and asking boys what the character might do; and planning the boys' day to include exercise throughout the day, sitting on bouncy balls, and playing with stress balls, while the girls were provided with a "quiet environment."¹⁰⁴ A Power Point presented to the School Board corroborated these differences and listed additional ones:

- Teacher voice tone on speaker system
- Language usage during instruction

- Different types of management and discipline
- Boys make more noise, but get headphones to concentrate
- Boys like to move and get pillows and squishy balls
- Boys' classrooms are loud; they interrupt and blurt out in class¹⁰⁵

A survey of teachers indicated that 64.6% vary their curriculum based on gender.¹⁰⁶

Documentation provided by the school included a presentation by NASSPE Advisory Board Member Abigail Norfleet James on "Teaching the Female Brain: Especially Math and Science."¹⁰⁷ It included advice such as "Science has a practical aspect—girls who are interested in fashion may want to learn drafting and the chemistry of fabrics."¹⁰⁸

Voluntariness/Coeducational Alternative: Although the school reports that participation in its single-sex programs is voluntary, polling of parents in 2012 by the school demonstrated that many parents were unaware of this fact. Of the parents who responded to an online survey (no information was provided as to how many of the parents of students at the school actually participated in this survey), 31.9% of parents did not feel "informed of the single-sex program prior to making my decision to place my child in a SS or mixed classroom," and 48.6% of parents felt they did not have a choice about the type of classroom into which their child was placed.¹⁰⁹ Whatever efforts were made by Middleton Elementary School to inform parents of their rights to opt into or out of the single-gender program, they were not made in writing. Principal Gilbert explicitly informed the ACLU of Idaho that "I do not have any documents that explain how children are assigned to classrooms. I do not have any opt-out/opt-in forms."¹¹⁰ Parents who wanted to request specific teachers or to opt in or out of single-sex classes had to make the request in writing on their own initiative,¹¹¹ and were presumably informed of this fact at school open houses.¹¹² No letters to parents explaining their options were provided; in fact, a letter sent to parents at the inception of the program in 2006 mentions nothing about a parent's ability to opt in or out,¹¹³ giving parents no information about what, if anything, they could do to influence their child's placement in one class or another, and failing to inform parents that the single-sex programs were voluntary.

Flawed Evaluations: No evidence was produced suggesting that any evaluation was conducted to ensure that the program did not perpetuate sex stereotypes.

MAINE

York County, Sanford School District: Willard Middle School

Program Description: The Willard School operated a single-sex program in all academic classes in the sixth grade beginning in 2009-2010, which was expanded to the fifth grade in 2010-2011 and ran through the end of the 2011-2012 school year. In June 2012, after receiving a cease-and-desist letter from the ACLU, the Sanford School District agreed to terminate the program starting in the 2012-2013 school year.

Justification: This program was implemented because the principal at another school read an article or articles that led him to believe that single-sex education was a good idea because “boys’ and girls’ learning styles,” “social/emotional needs,” and “brain development” were “different.”¹¹⁴ No valid studies or educational data were produced showing any link between single-sex education and any improved academic or behavioral outcomes; the district produced only one 2009 research report from the National Association of Elementary School Principals, *Single Sex Classrooms*, in which the author concluded that the results of existing studies were “equivocal” and cautioned that schools should “have a clearly articulated rationale and specific program goals before implementation efforts begin”¹¹⁵—both of which were absent here.

After the original principal presented his proposal to teachers and administrators, “it was decided” that it would be better to try the program at a middle school.¹¹⁶ There was no evidence that any analysis was conducted as to the specific educational needs of students at Willard. Rather, the school decided to implement a pilot in which sixth grade students who chose to participate in the program were entirely separated for all academic subjects. No evidence was produced suggesting that the program at Willard was part of an established program aimed at improving academic achievement by offering a diversity of educational options.

Gender-Differentiated Teaching: Gender stereotypes were incorporated into the single-sex classrooms through use of differentiated teaching methods: a description of the program states that “[i]nstruction may best be differentiated and enhanced through the exploration and tailoring of how each gender learns.”¹¹⁷ A school newsletter describes different routines for the sixth-grade girls’ and boys’ classes: “young ladies have . . . a daily cup of cocoa as they read the Portland Press Herald and discuss local, national and global events,” while the boys’ class contained “an exercise area within the class and all the young men have the opportunity to exercise . . . [and] signed up with the NFL Experience,” a program sponsored by the National Football League aimed at encouraging daily physical activity.¹¹⁸

Coeducational Alternative: Finally, there was some evidence that students with special educational needs may have been excluded from eligibility in the single-sex classes, which raises questions about compliance with the ADA, as well as whether the coeducational alternatives available were indeed “substantially equal” to the single-sex classes.¹¹⁹

Flawed Evaluations: Sanford officials did conduct some limited evaluation of the program comparing disciplinary incidents, absences, and target “growth goals” between students in the girl and boy classes and coeducational classes over several program years. However, the data provided was not complete and was difficult to interpret without context or explanation. In addition, surveys were performed of student and parent attitudes and self-reported progress; these suggest that the program was popular, but do not represent an accurate or meaningful measure of improvements in academic outcomes. No evaluation was conducted on whether the program relied on or perpetuated sex stereotypes.¹²⁰

MISSISSIPPI

Lamar County: Baxterville Attendance Center (K-8)

Program Description: Baxterville, a K-8 school, operated single-sex classes in the entire sixth and eighth grades through the end of the 2011-2012 school year, when the program was dissolved following the receipt of an open records act request by the ACLU of Mississippi.¹²¹

Justification: No adequate justification for the program was articulated beyond an assertion that the Principal had instituted it “based on research of the academic effectiveness of single gender classes.”¹²² The district admitted that there was no written policy regarding the program, or regarding single-sex education generally, and that “it was not debated or discussed at the school board meeting since this was a local school decision.”¹²³ Thus, it appears that the decision to institute these programs was made without any articulated mission, goal, or justification, and with no deliberation, public participation, or oversight by the School District.

The District produced no assessments of the individualized educational needs of students within the school or the county. The supporting research produced included only three articles showing equivocal results,¹²⁴ along with numerous sources from the NASSPE website, and a PowerPoint presentation on a single-gender program at an elementary school in Yukon, Canada, containing numerous unsupported generalizations about the different brains, learning and development of boys and girls, and their implications for the classroom.¹²⁵ No evidence was produced suggesting that the program at Willard was part of an established program aimed at improving academic achievement by offering a diversity of educational options.

Voluntariness/Coeducational Alternative: There was no documentation produced indicating that parents were given the option to opt in or out of the single-sex classes, or that there was any coeducational alternative available.

Flawed Evaluations: No evidence was produced suggesting that any evaluation was conducted.

MISSOURI

Adrian R-III School District: Adrian Middle and High Schools

Program Description: During the 2011-2012 school year, students in the sixth through eighth grades and some high school students were initially assigned to single-sex classrooms for core academic classes, without parental permission or the opportunity to opt-in or out. The program was terminated after the ACLU of Kansas and Western Missouri sent a letter of concern.

Justification: Records do not clearly indicate any substantial governmental interest that the District aimed to serve—in fact, there is no indication at all that the School Board even considered or discussed this program prior to its implementation. The sources that were relied on by the school administration in implementing this program were replete with sex stereotypes about the purported learning and developmental differences between boys and girls, including extended quotations from the NASSPE website and the bullet points quoted above from the website of Sax’s book *Boys Adrift*.¹²⁶ No primary educational research was produced establishing any connection between single-sex education and improved educational outcomes; research cited instead consisted of a single news article, several webpages published by advocacy organizations—principally, those of Leonard Sax and David Chadwell—and one power-point presentation apparently offered by a school principal at a Virginia middle school that offers single-sex classes for its core curriculum.¹²⁷

Voluntariness: Correspondence with parents suggests that the program was initially mandatory for all students, and that even after parents were alerted to their children’s assignments to the single-sex classes and given the opportunity to opt out, parents were pressured into electing the single-sex classes for their children.¹²⁸

Flawed Evaluations: No evidence was produced suggesting that any evaluation was conducted.

NORTH CAROLINA

Wake County School District: Wake Young Men's Leadership Academy and Wake Young Women's Leadership Academy

Program Description: Documents produced by the School District of Wake County, North Carolina in response to an open records request reveal that in Fall 2012 Wake County will open two single-sex leadership academies, Wake Young Men's Leadership Academy (WYMLA) and Wake Young Women's Leadership Academy (WYWLA). In the 2012-2013 school year the academies will offer sixth, seventh, and ninth grades, but over the next five years the academies plan to phase in eighth and tenth through twelfth grades plus some college credit offerings.¹²⁹ Both Academies will operate as magnet schools that students will attend on an opt-in basis. Students submit applications, including various academic measures, a writing sample and references, and those who meet minimum qualifications for academic promise are selected by lottery from two pools (sorted by first generation and non-first generation students).¹³⁰

Although the WYMLA and WYWLA applications envision that the academies will constitute “[a]n early college partnership between William Peace University and the Wake County Public School System,”¹³¹ apparently that partnership has ended. The Young Women's Academy will be housed in a public school building in the coming school year, and the Young Men's Academy will meet in modular space until a permanent building is available in 2013-14.¹³²

Justification: The academies' high schools are part of North Carolina's Cooperative Innovative High School Program.¹³³ While the label of “Cooperative Innovative High School” applies only to ninth through twelfth grades plus some college credit offerings, the purposes of both the middle and high schools are the same: “The primary purpose of establishing our two single gender academies is to create a success-oriented environment where young people are inspired and supported in achieving their full potential.”¹³⁴

References in promotional materials for the academies, proposed professional development workshops for teaching staff, and research consulted in the formation of the academies suggest that purported brain differences between boys and girls are also a primary justification for the Wake Leadership Academies. For example, a promotional PowerPoint presentation for the leadership academies lists among the alleged benefits of single-gender programming: “Fewer distractions, Research based on learning, Highly qualified staff trained in single gender learning styles.”¹³⁵ The presentation goes on to explain that girls and boys learn differently because of differences in adolescent brain development:

Boys' Brains:

More White Matter—Spatial reasoning; Mathematical problem-solving; Transfer information throughout the brain; Need more room to work!; Need more opportunities to move around!

Girls' Brains:

More Gray Matter—Process Information Differently; Stronger verbal skills, Juggle many tasks; Size up social situations quickly; Coordinate complex relationships.¹³⁶

In response to a request for research and data relied upon by the School District in support of the single-sex Academies, the school district produced an array of materials, including curricula for leadership programming,¹³⁷ best-practices and anecdotal reports from girls' schools and extra-curricular programs,¹³⁸ and reports on women in STEM (Science, Technology, Engineering, and Math).¹³⁹ These consisted mainly of anecdotal accounts, inconclusive studies, and opinion and advocacy pieces. It cited, for example, high graduation rates at Urban Prep, a boys' academy in Chicago, the Young Women's Leadership Academy in New York, and two single-sex academies in Guilford County, North Carolina.¹⁴⁰ Wake County did not compare student grades and other performance indicators at the cited schools with those at any comparable coeducational institutions, consider whether the information cited was relevant to public school education, or conduct any further investigation or analysis of these data to determine whether or how the single-sex programming at these schools contributed to reported academic improvements.

Documents contained numerous claims about the supposed benefits of single-sex education; however, these were unsupported by any valid data or research, produced by pro-single-sex education advocacy groups such as NASSPE and the National Coalition of Girls Schools, and/or lacking in scholarly analysis.¹⁴¹

Included among these materials was a commentary piece from the Wisconsin Policy Research Institute, directly quoting Leonard Sax:

The brain research findings that have made us re-examine all the things that we took for granted about boys being better at math and girls being more verbal. There are profound differences with how boys and girls see, smell, hear, and learn. The reality is that both can learn very well, but only if you know how to teach them.¹⁴²

These materials also included numerous reports and articles, apparently ignored, emphasizing that research on single-sex education is inconclusive, that more research needs to be done to fully understand the benefits and harms of single-sex programs.¹⁴³ It is clear that in at least some cases, those important qualifications were overlooked or misrepresented.¹⁴⁴ In sum, the data presented by Wake County in favor of single-sex classes was at best unscientific, and no clear or convincing link between sex separation and improved academic achievement was articulated.

Gender-Differentiated Teaching: It is evident from the programming for the academies, the philosophy of the school's leadership, and the research that contributed to the formation of the schools that gender-specific teaching styles will be used in the classrooms of the Wake Young Men's and Young Women's Leadership Academies. In a recent interview, principal of the Wake

Young Leaders' Academy Teresa Pierrie provided the following "generalities" about the learning styles of boys and girls:

- Boys need more movement and room when they work. They want to get to their work and get it finished. They need physically engaging tasks in all disciplines, not just physical education or CTE courses. They also need to be taught to process through their work rather than rush to the finish.
- Girls require time to verbalize their insights. They want to discuss extensively before, during, and after a class. They need to develop their powers of oral argument to make them purposeful, well-developed discussions. They also need to learn the power of individual rather than collaborative engagement.

She goes on to refer to "a great website that addresses these topics"—the website of NASSPE.¹⁴⁵

PENNSYLVANIA

Pittsburgh Public Schools: Westinghouse 6-12

Program Description: In 2011, the Pittsburgh Public Schools implemented a single-sex program within the new Westinghouse 6-12 school (formerly Westinghouse High School) for all academic courses in all grades. The program was terminated at the end of 2011 after the ACLU of Pennsylvania threatened to file an administrative complaint with OCR.

Justification: Although the documents produced included some claims that single-sex education improves academic achievement, no support was offered for these claims. For example, no primary educational research studies linking single-sex education with improved academic outcomes were apparently provided to or relied upon by the School Board. The sole academic study produced was the 2005 literature survey by the U.S. Department of Education concluding that data in support of single-sex education were “equivocal.”¹⁴⁶ Outside of that single study, the School Board appears to have relied on newspaper articles, the websites of other single-sex institutions, and materials from (mostly pro-single-sex education) advocacy groups. No individualized analysis of student need was conducted, nor was any attempt made to justify separation in a particular grade level or subject area. Rather, the decision was made to separate students based on sex within the entire school for all academic subjects on a wholesale basis.

The explicit, stated goal of the plan to separate Westinghouse students by sex was to cater to “the separate needs of young women and young men.”¹⁴⁷ To give just a few examples, the documents included claims that “research solidly indicates that boys and girls learn differently.”¹⁴⁸ Draft documents stated that “adolescent girls’ brains exhibit high levels of communication between different subject matter, cultures and time periods, while young men make meaning through movement.”¹⁴⁹ Multiple references in these documents made clear that the program was intended to be structured in a gendered fashion (for example, by giving students “male-hood and female-hood defined space” including characteristics of “warrior, protector, and provider” for boys, and “space/time to explore things that young women like [including] writing, applying and doing make-up & hair, art”¹⁵⁰), and to enable teachers to “appeal” to these supposedly different learning styles.¹⁵¹

Voluntariness/Coeducational Alternative: The program also failed to satisfy the requirement that enrollment in the single-sex program be “completely voluntary,” or that there be a substantially equal coeducational alternative available. Students were automatically assigned to the school based on their residence, and those who chose to opt out were required to transfer to another school in a different neighborhood which did not feature the same opportunities, including course offerings (particularly the availability of career and technical education classes) and a longer school day and year.

VIRGINIA

Hanover County: Mechanicsville Elementary School

Program Description: The Mechanicsville Elementary School proposed single-sex classes in 2005 for the 2006-2007 school year.¹⁵² The school initially proposed one fourth-grade class of girls and one fourth-grade class of boys who would remain in their single-sex classrooms for all subjects.¹⁵³ Under an “expanding pilot program,” single-sex classes expanded to the fifth grade in the second year of the program and are currently ongoing in both grades.¹⁵⁴

Justification: The decision to initiate these programs, and the programs themselves, was based on theories about the supposedly different brains, and thus learning styles, of boys and girls. Mechanicsville’s proposal for the single-sex program cited *Why Gender Matters*, by Sax, for the proposition that “the male and female brains are genetically different which causes them to learn differently using different parts of the brain.”¹⁵⁵ The school also relied heavily on other material premised on the need to teach boys and girls differently, including materials from NASSPE.¹⁵⁶

The documents produced did not demonstrate that Mechanicsville conducted an analysis of individualized educational need other than the initial single-sex program proposal indicating that the third grade teachers “identified students who could benefit from this program.”¹⁵⁷ Furthermore, Mechanicsville’s proposal stated that the primary difference between the co-ed classes and the single-sex classes would be concentrated on how the instruction is delivered to the students.¹⁵⁸

The school proposed incorporating differentiated teaching methods into the single-sex classrooms, although the school had no evidence tying theoretical differences in the brains of boys and girls to learning styles. Mechanicsville’s proposal stated,

Boys respond to loud voices and can learn in a noisy environment where girls tend to be bothered by this. Boys take risks in the classroom more quickly than girls, reducing the girls’ percentage of time to actively participate. Boys prefer to have help offered shoulder to shoulder where girls prefer eye contact. Male students also perform better on assessments with a moderate amount of stress where stress impairs the performance of female students.¹⁵⁹

In a PowerPoint presentation given to parents, school officials explained that “males enjoy reading non-fiction filled with interesting facts, while females enjoy fictional reading.”¹⁶⁰

Gender-Differentiated Teaching: Documents produced containing teachers’ statements about the program state, “Our research and at that point first hand experience showed that the face-to-face desk arrangement was not functional for the boys . . . Life in the female classroom was

quite different. ...the girls learned through role play and group discussions on the carpet.”¹⁶¹ Teachers were trained in gender-differentiated teaching methods, reflective in the agendas provided by the district from the NASSPE conferences attended by staff.

Voluntariness: In the first year of the program, Mechanicsville assigned certain students to single-sex classes, allowing parents to opt their child out.¹⁶² Currently, Mechanicsville uses a form for enrolling in the program that includes both an opt-in and an opt-out choice, but it is unclear from the documents provided whether the form goes to every parent or continues to go only to parents of students who the school believes could benefit from the program.¹⁶³

Flawed Evaluations: The school did attempt to conduct evaluation of the effectiveness of its program and to take into account factors such as student proficiency levels going into the single-sex classes. However, it was difficult to glean from the documents whether this evaluation was performed using valid methods or whether the results reflected an accurate assessment of the program’s effectiveness. The school did not provide any documents indicating that it performed the required evaluation of whether the program perpetuated sex stereotypes.

Prince William County: Woodbridge Middle School

Program Description: Woodbridge Middle School’s single-sex program began in the 2007-2008 school year, and the school still currently operates its single-sex program at each grade level throughout the entire school—sixth, seventh, and eighth grades—for all subjects.

Justification: The program is premised on the sex-stereotyped instruction theory. At the same time, however, it appears that the shift to offering a single-sex program was also motivated in significant part by concerns about the changing demographics of the school’s population in the wake of redistricting “from a majority white school serving middle to upper middle class families, to a school with a very diverse student population with almost 40% of the students classified as economically disadvantaged.”¹⁶⁴ This “market based” justification for the program does not fall under one of the two permissible student-centered justifications for the creation of single-sex programming.

No documents produced by Woodbridge indicate that the school conducted any analysis of individual student abilities or needs. Rather than investigate how an individual student learns best, Woodbridge used gender as a proxy for differences in learning styles. School officials designed the single-sex program based on books and articles by Sax and others espousing the sex-stereotyped instruction theory, including a PowerPoint presentation that reproduced the bullet points quoted above from the website for Sax’s book *Boys Adrift*.¹⁶⁵ In November 2006, Sax was contracted to conduct trainings for school staff,¹⁶⁶ and all staff received a copy of *Why Gender Matters*.¹⁶⁷ Documents produced outlining the proposal of the program in its pilot year indicate that leadership staff “continues to study the Sax methodology. . . .”¹⁶⁸

Additionally, materials produced in response to the specific request for documents considered or relied on in instituting the program contained materials by Bill McBride, titled “Girls Will be Girls and Boys will be Boys: Teaching to Gender Differences.” These materials assert that girls’ “stronger neural connectors create better listening skills, more detailed memory storage, and better discrimination among the tones of voice” and “with more cortical areas devoted to verbal functioning, girls are better at: sensory memory, sitting still, listening, tonality, mental cross talk, and the complexities of reading and writing...”¹⁶⁹ These materials also assert that “spatial mechanical functioning makes boys want to move objects through the air, such as balls, airplanes, their little sisters, or just their arms and legs” and “the male brain is designed to go in to rest states in which it renews, recharges and reorients itself. Girls do this without going to sleep.”¹⁷⁰

Materials produced in response to the specific request for documents considered or relied on in instituting the program also contained a chart titled “Brain-based Genetic Differences in Girls and Boys,”¹⁷¹ asserting that “girls tend to use more of the advanced part of their brains, such as the cerebral cortex,” while “boys tend to use more of the primitive parts of their brains, e.g. the hippocampus and amygdala.”¹⁷² This chart also asserts that girls “are more verbal emotive,” while boys “are more spatial mechanical.”¹⁷³ The chart explains that brain based genetic differences in girls and boys mean girls “can explain and describe their feelings,” while “boys find it difficult to talk about feelings.”¹⁷⁴ These claims are just a few of many in this chart.

Gender-Differentiated Teaching: Teachers employed differential teaching methods in the boys’ and girls’ classrooms. In describing the single-sex program Principal Calhoun asserted, “The instructional advantages include brain-based teaching strategies tailored to each gender.”¹⁷⁵ The school’s proposal to extend the same-sex classes through 2009-2011 stated: “The same gender teachers differentiate the delivery of their instruction and utilize a variety of gender specific learning strategies based on researched brain differences between the genders.” The proposal for the program extension as well as the proposal for the initial pilot year indicated that “. . . effective teaching styles differ for boys and girls, due to the difference in brain structure and operation.”¹⁷⁶ Additionally, the current Woodbridge website states that

Research has shown that there are tremendous differences in how boys and girls learn. Teachers who are trained to teach the way boys and girls learn best *can increase* the rate of academic achievement. Our staff has been trained by one of the leading experts in the field, Dr. Leonard Sax, author of *Why Gender Matters: What Parents and Teachers Need to Know about the Emerging Science of Sex Differences*.¹⁷⁷

Strategies discussed in the proposal for Woodbridge’s program extension include instructing students to color code their notes only in all female classes; using purposeful movement, individual and group competitions, and addressing the students with surnames only in the all boys’ classroom; and designing different lessons based on topics that are considered engaging for each sex.¹⁷⁸ A PowerPoint presentation provided by the school to parents indicates that Sax gave seventeen hours’ worth of teacher training going into year one of the program, and

that going into 2008, teachers received a presentation by David Chadwell on “Same Gender Instructional Strategies” and received “Same Gender Strategies Presentations” called “Teachers Teaching Teachers.”¹⁷⁹ In 2006, Woodbridge’s principal attended the NASSPE regional conference, and in 2007 and 2008, the school’s “instructional team” attended the NASSPE international conference.¹⁸⁰

Prior to the start of the 2009-2010 school year, NASSPE Advisory Board Member Abigail Norfleet James, author of *Teaching the Male Brain* and *Teaching the Female Brain*, made a presentation to the staff.¹⁸¹ Her presentation stated that boys “learn best iconically and kinesthetically” and girls “learn best verbally and auditorially.”¹⁸² The PowerPoint included strategies to teach girls math: “use verbal methods to introduce the topic... tie material to real-world examples... turn lined paper sideways...”¹⁸³ Strategies to teach girls science included statements that “girls actually like biology or any subject which is involved with a people-helping profession” and “girls prefer a collaborative learning style.”¹⁸⁴ Strategies for teaching reading to boys included “read to them,” instead of boys reading silently to themselves, and using “graphic novels, magazines and websites, books that are exciting, realistic, gory, scary, and plot driven.”¹⁸⁵

In a presentation given to parents, Woodbridge officials indicated that “teachers may use color as an engagement for girls and avoid penalizing boys for not using a lot of color,” because “they see differently.”¹⁸⁶ The presentation described boys and girls as “alert differently,” indicating that “for boys, their nervous system seems to be more active when standing and the temperature is cool,” and “for girls, their nervous system can stay active longer while sitting and the temperature is warmer,” thus “teachers will provide structured movement opportunities for students to utilize their natural energy.”¹⁸⁷ Additionally, “teachers may use rapid-fire questions with boys,” and “will take time to answer questions of the girls and explain directions upfront,” because “they deal with stress differently.”¹⁸⁸

Further, the introductory text to a poll conducted by Woodbridge to ascertain teachers’ interest in teaching a single-sex class stated that “teaching styles differ for effectively teaching boys and girls, due to differences in brain structure and operation.” The poll went on to assert that:

[A] teacher of boys is one who moves around often while teaching, and speaks rather loudly. ...Boys prefer reading material that is non-fiction, or if fiction, adventure oriented. In math, boys can get interested in “pure” math and geometry, without linking it to the real world applications. The female brain does not prefer such action. A teacher of girls is still, speaks at a medium volume... girls prefer reading fiction material that does not necessarily contain much action. In math, girls generally prefer a real world application that shows them why it is meaningful. They are generally not interested in “pure” math for its own sake.¹⁸⁹

Flawed Evaluations: A proposal to extend the single-sex program at Woodbridge submitted to the Superintendent in 2008 contains some data that appears to suggest that boys and girls in the single-gender classes were performing better than their peers in coeducational classrooms.¹⁹⁰

However, the emphasis at its inception on the possible attractiveness to their “higher achieving students” of the single-gender program as “specialty school program” begs the question whether the student outcomes were a result of sex-separated teaching or merely reflective of the relative abilities of the students who chose to participate in the single-sex classroom experiment.¹⁹¹

WEST VIRGINIA

Cabell County: Enslow and Barboursville Middle Schools

Program Description: Barboursville Middle School operated a single-sex program in core classes as well as during lunch in the sixth grade during the 2010-2011 and 2011-2012 school year, and Enslow Middle School operated a single-sex education program in core classes in the sixth grade during the 2009-2010 school year and in the sixth and seventh grades during the 2011-2012 school years. Following receipt of an open records request by the ACLU of West Virginia, the Enslow program was discontinued for the 2012-2013 school year. Although the Barboursville Middle School program was initially slated to continue, or even expand, in 2012-2013, the School Board later voted to suspend it following receipt of a cease and desist letter from the ACLU.

Justification: The documents produced in response to our request did not clearly indicate *any* governmental interest that the Cabell County School District aimed to serve in implementing the sex separation programs at either the Enslow or Barboursville Middle school. On the contrary, it appears that the decision to institute these programs was made without any articulated mission, goal, or justification, and with little deliberation, public participation, or oversight by the School District.

Documents suggested that the program at Enslow was initiated in 2009-2010 at the suggestion of the then-principal, Georgia Porter, modeled after a similar program in Kanawha County that the principal there had represented to her led to some “gains in test scores each year.”¹⁹² No documents were produced quantifying the extent of those purported gains in Kanawha County, and no further studies or educational data were produced showing any link between single-sex education and any improved academic or behavioral outcomes elsewhere. The program was temporarily suspended due to scheduling issues in 2010-2011, but was reinstated for the 2011-2012 school year in the sixth and seventh grades upon the staff’s request. No documents were produced suggesting that the County considered any data or studies in support of its decision, either in 2009 or in 2011, or that it put forward any justification for the program other than the unsubstantiated reports of improvements in Kanawha County and the unsupported views of the faculty that it had “worked very well” and that they had “missed it.”¹⁹³

The same was true of Barboursville. In that case, the County produced no records documenting the justification for instituting single-gender education in its sixth grade core classes, other than an explicitly non-exhaustive list of research abstracts that were considered in deciding whether to institute the program. The district apparently failed to consider *any* school- or county-specific data in support of its decision.

The district had no clearly established policy of offering diverse educational options to students, but rather operated strictly on a neighborhood school model.

The sources that administrators relied upon in implementing single-sex classes also relied heavily on the sex-stereotyped instruction theory. For example, among the documents produced in support of the decision to institute single-sex core classes at Enslow was Gurian's *Teaching to the Minds of Boys*. Principal Ryan McKenzie stated that the faculty at Enslow was trained using Sax's *Why Gender Matters*, and the Curriculum Supervisor of Cabell County Schools suggested that staff there should have received *more* professional development "for how to teach adolescent boys differently than adolescent girls."¹⁹⁴

Gender-Differentiated Teaching: Publicly available documents also suggest that these gender stereotypes were incorporated into the curriculum in the single-sex classrooms at both schools. For example, members of the faculty at Barboursville Middle School made comments to the media describing how "teachers try to use different angles for addressing the same subjects, those that might affect one sex more than the other. . . . [F]or boys they may use examples like tennis shoes or similar things in order to help them understand their lessons."¹⁹⁵ Teachers at Enslow Middle School indicated that all female classes "get off on tangents and talk about girl things that [they] couldn't necessarily talk about in front of the boys," whereas in all-male math classes, students "can talk about sports, tools and things that relate to the boys."¹⁹⁶

Voluntariness/Coeducational Alternative: The district produced no documentation that parents were provided any choice to opt into or out of the single-sex classes, or that any coeducational option existed at the school. When the ACLU of West Virginia Foundation followed up to confirm that this was the case, they were informed that the only alternative available was the option of enrolling in a different school altogether—although parents were provided with no information on the availability of that option or how to exercise it.

Flawed Evaluations: The district produced no documentation that any evaluation was performed to assess the effectiveness of the program, or to ensure that it did not promote sex stereotypes. On the contrary, to the extent that the district was involved in any oversight of the program at all, it appears to have suggested that the school should have conducted *more* teacher training on gender-differentiated instruction.¹⁹⁷

Kanawha County: Stonewall Jackson Middle School and Anne Bailey Elementary School

Program Description: Stonewall Jackson Middle School has been separating boys and girls in core classes in the sixth, seventh, and eighth grades since 2004 and Anne Bailey Elementary has been separating boys and girls in core classes in grades pre-Kindergarten through the fifth grade since 2006. Following a public records request from the ACLU of West Virginia, Anne Bailey Elementary decided to discontinue single-sex classes as of the beginning of the 2012-2013 school year. Following a cease-and-desist letter from the ACLU, Kanawha County Schools also agreed to discontinue all programs beginning next year.

Justification: Documents produced contained not a single written policy regarding single-sex educational programs in Kanawha County Schools and no record of an educational need or justification for such programs. Instead, the County’s response consisted almost entirely of secondary sources that the school District purportedly relied upon in instituting the programs at Stonewall Jackson and Anne Bailey Elementary, all of which strongly suggest that the decision to initiate these programs was based in large part on the sex-stereotyped instructional approach. Most of the documents consisted of newspaper articles, press releases, opinion pieces, or non-scholarly advocacy pieces containing purely anecdotal information, including numerous citations to the NASSPE website, Sax’s *Why Gender Matters*, and Gurian’s *Teaching to the Minds of Boys*. In addition, the sources included literature surveys and articles on the effects of single-sex education which warn that single-sex education has not been proven to improve academic outcomes.¹⁹⁸ Only one of the sources, a doctoral dissertation on the single-sex educational program at Stonewall Jackson Middle during the 2004-2005 school year, constituted primary research within the relevant community, but the dissertation itself was not provided.¹⁹⁹

Publicly available documents, such as press accounts, also suggested that gender stereotypes were the actual justification for, and were incorporated into the curriculum of, the single-sex classes at both schools. For example, the former principle of Anne Bailey Elementary informed the media that he implemented single-sex classes after hearing Leonard Sax speak at a conference, based on the reasoning that “[t]he way you teach girls and boys is totally different.”²⁰⁰ Members of the faculty at Stonewall Jackson Middle school informed the media that “[t]he way boys and girls interpret things and learn things are different” [. . .] “[g]irls are more sensitive, boys are more concrete.”²⁰¹ One teacher described the different teaching approaches she used for girls and boys: “With the girls, you can ask what they’re thinking and how they feel. With the boys, you ask more practical questions. They want to grill you. They want more factual answers, but the girls appreciate the human interest more.”²⁰²

Voluntariness/Coeducational Alternative: Kanawha County Schools produced no documents demonstrating that parents were afforded the opportunity to opt into or out of the single-sex classes or that a coeducational option was available at either school.

Flawed Evaluations: Kanawha County Schools produced no documentation that any evaluation was performed to assess either of these long-running programs.

Wood County: Van Devender Middle School

Program Description: The program at Van Devender Middle School was approved by the County Board of Education in early 2010. The program was first initiated in the sixth grade for core academic classes, and was expanded to the seventh grade in 2011-2012, with plans to expand to the eighth grade in 2012-2013.

Justification: The stated justification for the program, as presented to the Wood County School District, was to address an achievement gap between Van Devender students (both male and female) and county-wide averages.²⁰³ The program’s stated “vision” was to “establish a high achieving school where males and females score at or above state averages on all achievement measures,” and its “mission” was to “deliver a learning experience based on gender diversity.”²⁰⁴

There was ample evidence that the program at Van Devender was explicitly premised on the sex-stereotyped instruction theory. For example, in seeking School Board approval for the single-sex program in the sixth grade, Van Devender officials utilized a PowerPoint presentation including claims that “[r]esearchers at the National Institute of Mental Health found that the various regions of the brain develop in a different sequence and tempo in girls compared with boys” and that “[t]he areas of the brain involved in language, spatial memory, motor coordination, and in getting along with other people, develop in a different time, order, and rate in girls compared with boys.”²⁰⁵ Notes by the Assistant Principal preparing answers to “Frequently Asked Questions” at the same presentation to the school board, included claims that “[b]oys are hardwired to learn the same way. They like competition, movement, and activity. There are differences in their writing, the types of books they like, [sic] They will participate in team building activities to help them learn to cooperate.”²⁰⁶ The document goes on to claim that “[b]oys and girls brains [sic] process information differently at different ages. There are certain teaching strategies that work better for boys and certain strategies that work better for girls. *By being gender based, we can tailor our instruction to how each of their brains learn best.*”²⁰⁷

As noted above, the sex-separated programs in Van Devender were heavily informed by the work of Leonard Sax.²⁰⁸ Sax was intimately involved in the decision to initiate the single-sex program at Van Devender from its inception, including providing step-by-step instructions on how to initiate a single-sex program.²⁰⁹ In addition to sending staff to the NASSPE conference, Van Devender administrators brought Sax to the school for teacher training sessions.²¹⁰ Van Devender also submitted to the ACLU the PowerPoint presentation described above that reproduced part of the website for Sax’s *Boys Adrift*.²¹¹

The impermissible sex-stereotypes underlying the single-sex education program at Van Devender are also evident from the other research officials relied upon in deciding to institute it. Included among the documents produced in response to a request for such research were numerous articles from the websites of NASSPE and of David Chadwell, as well as the entire inaugural issue of a publication called *Advances in Gender and Education*, a journal self-published by NASSPE under the name the Montgomery Center for Research in Child and Adolescent Development (Leonard Sax is its founder and publisher).²¹² All of these sources espouse the view that hard-wired differences between boys and girls necessitate the use of different teaching methods in single-sex classrooms.

With respect to the articulated justification for the program—closing the achievement gap between students of both sexes at Van Devender and students in the rest of the county—the documents produced failed to demonstrate any relationship, substantial or otherwise, between student achievement and the sex separation at Van Devender. The County appears to have

relied on articles, news reports, opinion pieces, or non-scholarly advocacy pieces. The piece of independently produced research disclosed was a survey of educational literature published in the *Middle School Journal*, which concludes that:

[T]he better performance of students in single-sex classes and schools is mainly attributable to a plethora of factors like student ability, socioeconomic status, type of school (private vs. public), school characteristics (e.g. size, organizational structure), selection bias, and effective teaching. When these factors are controlled for, the academic differences between students in single-sex education and coeducational schools are neither significant nor conclusive.²¹³

Thus, while the records did appear to support the existence of an achievement gap between students at Van Devender and County averages, no valid evidence was produced that supported the theory that single-sex education or gender-differentiated instruction would close this gap and the only somewhat authoritative literature review concluded that single-sex education does not significantly change outcomes.

Gender-Differentiated Teaching: The theory of gender-differentiated teaching underlying this program was explicitly emphasized in promotional materials and in information provided to parents and the public,²¹⁴ and professional development on gender-differentiated teaching was a central feature of the “Business Plan” presenting the proposed roll-out of the program to the Wood County Board.²¹⁵ Indeed, the very motto of the school, reflected in numerous presentations to the public and to various government bodies was “Van Devender Middle School: Where Gender Matters.”²¹⁶

Gender-based instruction techniques were pervasive in materials from teacher trainings and professional development sessions that numerous teachers and administrators from Van Devender received. For example, in October, 2009 and 2010, Van Devender staff attended the NASSPE national conference.²¹⁷ During at least one session at the 2009 conference, teachers were advised to “cover the same material,” but use “gender specific strategies.”²¹⁸

Publicly available documents also suggested that gender stereotypes were incorporated into the curriculum and teaching methods employed in the single-sex classrooms. Van Devender Principal Jerry Lake described some of these strategies in a YouTube video:

[A]nyone who’s had children, both a boy and a girl, know that they’re different. And so what we’ve done is we’ve done a lot of research in the differences of how boys’ and girls’ brains are made up, what their interests are, what motivates them. So what we did was, we have taken those strategies and we have developed them into boys’ classes and to girls’ classes. For example, we have set the boys’ classrooms up so they can get up and move around and lay on the floor if they want, whatever, while girls are much more organized; they sit at . . . round tables, facing each other, sharing things, doing that sort of thing. We know that boys like brighter lights, so we have the boys’ rooms lit

a little differently than we do the girls' rooms. Boys, we sit them side-by-side, because when they look each other in the eye it becomes more of a confrontational type thing. Girls, again, sit around tables, where they can make eye contact, where they can make relationships, and, and that sort of thing.²¹⁹

Voluntariness/Coeducational Alternative: There was also no record of a “substantially equal coeducational” option available to students who chose not to participate in single-sex classes. Documents suggested, and subsequent telephone conversations with school officials confirmed, that the school did not contemplate offering a coeducational alternative within the school, and that the only available alternative to participating in the single-sex program was by “taking school choice”—i.e. enrolling in another school altogether.²²⁰ No information appears to have been provided on logistical issues such as the availability of transportation to the alternative school(s) or the comparability of the course offerings or academic record of those alternatives.

WISCONSIN*

Barron School District, Riverview Middle School

Program Description: A single-sex education program in fifth-grade math and language arts classes was proposed at Riverview Middle School in 2011 and approved by the Board of Education in March of that year.²²¹ The Riverview Middle School operated single-sex classrooms during the 2011-2012 school year, and plans to continue the program in 2012-2013.

Justification: The program's goals were to use "gender-based" instruction to "[c]lose the gender gap... [i]mprove academic rigor in classes... [and i]mprove student behavior and attitudes through increased student competence, confidence and class participation."²²² Gender based instruction was to be used as a tool to meet the different "learning style needs" of boys and girls.²²³

Promotional materials produced by Riverview made numerous unsubstantiated claims about purported differences between boys and girls and the benefits of single-sex education for which no evidence was offered other than unsupported statements about "our research and experience."²²⁴ No documents were produced quantifying the particular need for the envisaged gains in student behavior, confidence, class participation, or academic rigor at Riverview. Indeed, no documents were produced demonstrating that Riverview considered *any* grade-, school- or county-specific data in support of its decision. Instead, the school presented unattributed quotes from students, stating "I feel like I can be more open with just boys in the room" or "[w]e really help each other more when its [sic] just girls."²²⁵

The program at Riverview Middle School was explicitly premised the sex-stereotyped instruction theory. Materials created by Riverview Middle School and sent to Riverview parents touting the benefits of single-sex instruction stated that boys and girls "mature at different rates" and process "math and language in different parts of the brain"²²⁶; that boys and girls brains develop differently and that "[b]oys and girls notice different things (boys: motion; girls: bright colors and people),"²²⁷ The materials generalized that girls: "Are more easily distracted by noise. Prefer quiet and focus. Prefer cooperative work. Prefer problem solving tasks that help people. Hear better. Mature faster linguistically by about 4 years."²²⁸ They compared this to qualities suggested to be characteristic of boys, who: "Are more kinesthetic. Prefer more freedom of movement. Do better when they can be louder and less restricted. Mature faster mathematically by about 4 years."²²⁹ Although the materials themselves recognize that these "differences are

* For information about ACLU's opposition to the proposed all-male Madison Prep Academy in Madison, Wisconsin in 2011, see <http://www.aclu.org/womens-rights/madison-metropolitan-school-district-and-madison-preparatory-school>. After we sent letters to the Madison School Board, it decided not to approve the school. Matthew DeFour, *School Board votes down Madison Prep*, Wisconsin State Journal, Dec. 20, 2011, http://host.madison.com/wsj/news/local/education/local_schools/school-board-won-t-back-madison-prep-academy-opening-in/article_e04d7092-2a9e-11e1-a1eb-001871e3ce6c.html.

generalization and may not be true for your student,” they nevertheless promote them as the justification for their program.²³⁰

The same materials linked the claimed biological differences to alleged benefits of single-sex education, asserting that the school’s “research and experience” has found that girls in single-sex classrooms: “Ask more questions. Do more hands-on work with equipment. Take more leadership roles. Talk more. Have higher self-esteem. Are less obsessed by clothes, hair, make-up and popularity. Concentrate more on academics.”²³¹ The same source stated that boys in single-gender classrooms: “Do better with freedom of movement. Are less distracted so they can focus on learning. Can practice social skills more comfortably. Participate more often and more freely. Are less distracted. They are focused on girls and impressing them, therefore boys act out less often and concentrate on academics.”²³² These materials included no actual data or references to support their assertions.

There is no evidence that school administrators conducted any particularized assessment of student need relating to math and language arts before implementing the program. On the contrary, it appears that no evaluation of student grades or other performance indicators, or any other school or district specific data, were considered by the school board at the time it rendered its decision to offer sex-separated math and language arts classes. Neither do the documents suggest that Barron School District has any established policy of offering diverse educational options, or that the implementation of the program was aimed at improving student achievement through offering such options.

Gender-Differentiated Teaching: The same promotional materials outlined gender-based instruction techniques, advising teachers on “what works with girls,” and instructing them to

- Use quieter teaching voice.
- Give more processing and sharing time—frequency and length.
- Make opportunities for sharing feelings.
- Encourage leadership and mutual support.
- Use persistence in depth of questioning.²³³

The parallel “what works with boys” advised teachers to:

- Avoid down time.
- Use louder teacher voice.
- Whenever possible give specific written directions.
- Repeat directions frequently.
- Encourage non-threatening fine motor skill activities.
- Frequent questions or reflections.²³⁴

The documents did not include or reference any valid studies or primary research supporting these assertions or linking these techniques specifically, or single-sex education in general, with improved academic outcomes. The sole secondary research cited was an opinion piece

in *The School Administrator* that was not subjected to peer review, that acknowledged that limited data exists in support of separation of students within coeducational schools, and that concluded that the results of the author's research could not be generalized, but rather should be used to generate additional research questions.²³⁵

Voluntariness/Coeducational Alternative: While the scant documents produced indicate that "mixed-gender classes" were offered in addition to the single-sex classes in math and language arts and that the program was optional, no further information was provided on how this option was to be exercised or how parents were informed of it.²³⁶

Flawed Evaluations: Although the required bi-annual analysis of the program for gender stereotypes has not yet occurred, it is apparent that the program could not meet the requirement to ensure that it not be based on sex stereotypes.

Beloit School District: Robinson Elementary and McLenegan Middle School

Program Description: Two schools in the School District of Beloit, Robinson Elementary School and McLenegan Elementary School, have established single-sex education programs. The program at Robinson Elementary was proposed in February of 2007, was initiated in certain classrooms in the fourth grade in the 2007-2008 school year,²³⁷ expanded to the third and fifth grades in the 2009-2010 school year, and operated in the third, fourth, and fifth grades for the 2010-2011 year.²³⁸

Justification: The sole justification and "primary goal" of the single-sex program at Robinson Elementary School was a desire to create an "optimal learning environment where girls and boys feel comfortable participating in the learning process" by catering to presumed gender differences in learning styles.²³⁹ An informational packet created by Robinson asserted that separating students by gender is essential to this goal because "boys and girls learn differently and more productively in different classroom environments."²⁴⁰ Robinson presented no substantial state interest to support the program's sex separation throughout the entire day, including non-academic periods like lunch and recess.

The program at Robinson Elementary was explicitly premised on the sex-stereotyped instruction theory. Materials created by Robinson Elementary and sent to Robinson parents touted the benefits of single-sex instruction and claimed to present "brain-based research. . . [on] developmental differences between boys and girls."²⁴¹ The materials reproduced some of the points described in the Introduction to this report from the website for Sax's book *Boys Adrift*.²⁴² Robinson linked these differences in 'wiring' to the "advantages same gender classrooms can offer," proffering its generalizations about brain development as a justification for the same-sex program.²⁴³

Beloit County School District did not bother to advance *any* justification or government interest that it aimed to serve in implementing the sex separation program at McLenegan Elementary. On the contrary, the decision to institute this program appears to have been made without any articulated mission, goal, or educational basis, and with little deliberation, public participation, or oversight by the School District.

Gender-Differentiated Teaching: The theory of gender-differentiated teaching underlying Robinson’s program is explicitly emphasized in information provided by the school to parents and the public. In a letter to parents, Robinson outlined how the teaching in same-sex programs could be tailored to accommodate the purported “developmental differences” in boys and girls:

- Girls, for the most part, learn better sitting down. However, when a young boy sits down, his brain turns off.
- Creating a less structured environment is important for boys. Activities where boys can move around are the best way to approach their learning styles.
- Creating a quiet, calm classroom environment is important for most girls. They tend to be more sensitive to sounds and are generally distracted by extraneous noise and movement in the classroom.”²⁴⁴

The letter concluded: “this is just a sampling of the differences between boys and girls, which same gender classrooms address to increase student achievement,” and invited parents to attend an information session to learn more about the program.²⁴⁵ An informational packet that Robinson Elementary distributed to parents at one such session included teacher development materials that discussed “Tips to Keep in Mind When Teaching Boys.”²⁴⁶ It directed teachers to “[e]nsure ample opportunity for movement... [not] routinely take away recess as a punishment for boys, use only as a last resort... [r]emember that girls tend to **‘whisper’** while boys tend to **‘shout’**... [and to k]eep in mind that boys typically have a shorter attention span than girls.”²⁴⁷ An excerpt from another document included in the informational packet gave specific suggestions for how to engage boys in reading:

The action-oriented competitive learning style of many boys works against them with literacy learning. Boys need more male role models for literacy, in order to see reading as a masculine activity. Boys aren’t motivated to read many of the books given to them, as they’re unappealing... Most of what they read don’t [*sic*] deal with the real problems and fears of boys.²⁴⁸

The document goes on to encourage using male role models to show boys how to make themselves “vulnerable to a book” and connect to characters so that boys won’t be afraid and think this is unmanly.²⁴⁹

Robinson’s promotional materials also indicate that its program was heavily informed by the work of Sax. One of its handouts on the topic “Why Have Same Gender Classrooms?” cites Sax to claim that “boys and girls learn differently and more productively in different classroom environments,”²⁵⁰ and goes on to assert that:

Girls are born with a sense of hearing seven times that of boys and therefore learn in a quieter atmosphere. Boys in general learn better in an environment where they are able to move around and respond to louder voices. Studies have shown that overall girls learn better in warmer classrooms and boys in cooler ones.²⁵¹

The informational packet distributed by the school also includes Sax’s *Why Gender Matters*.²⁵² A number of the letters that Robinson Elementary sent home to parents to inform them of the single-sex program directed them to the NASSPE website.²⁵³

Recommended gender-based instruction techniques were also pervasive in materials from a Single Gender Conference in June 2011, presumably attended by staff from McLenegan, Robinson, or both. One presentation on the topic of “Gender Differences that Make a Difference in the Classroom”²⁵⁴ outlined different “pedagogy implications” of presumed gender differences and advised teachers to adapt their teaching methods accordingly. For example, the document states that “[b]oys read emotions and are INSTINCTIVE/impulsive...[while g]irls read emotions and analyze the emotion”²⁵⁵; teachers were thus advised to “[a]ccess Boys’ work from a Boys’ Perspective: MOVEMENT/ACTION. Access Girls’ work from a Girls’ perspective: COLOR/TEXTURE”²⁵⁶; the presentation recommends that sitting should be required for girls, but not for boys, and prescribes different light/sound requirements for boys and girls classrooms²⁵⁷; teachers for boys should “[u]se a loud voice. Frequently interrupt yourself—‘shooting questions,’” while for girls they should “[u]se a regular voice. Make eye contact and SMILE.”²⁵⁸

The document also made subject-specific recommendations for boys and girls based on these presumed sex differences in learning.²⁵⁹ For literature it suggested different questions for boys and girls:

Literature Questions [for boys]:
‘What would you DO if...?’
In Medias Res... Begin in the Middle...
...make a picture in your mind...
‘Technical details’...
...like maps...
Boys’ stories –
Action/Movement/“Violent”

Literature Questions [for girls]:
“How might/would you FEEL if...?”
Favorite character...
“If you could change something...”
“What do you like about...? Not like...??”
... like Role Playing...
Girls’ stories –
Color/Texture/Light²⁶⁰

The materials also suggested different pedagogy for boys and girls in math:

Pedagogy for boys:

- Math:** Start with a Riddle! J
- Do NUMBERS for numbers sake...
- WHO was first to recognize this formula...
- Computation Drills... Speed...

Pedagogy for Girls:

- Math:** Begin with the Real World!
- Demonstrate RELEVANCE to the real world...
- Manipulatives
- Link/Integrate with other subjects²⁶¹

In social studies the materials also suggested different teaching techniques for boys and girls:

[For boys]

- In Medias Res - Start w/most exciting event...
- Focus on REAL men.
- Highlight Technical Details and Use maps

[For girls]

- “How would you feel if you were a girl your age...?”
- and connect with the content
- Integrate with other disciplines... art/music/literature²⁶²

Finally the materials outlined different presumed differences in motivation and competition:

-Motivating Boys

- LOVE hierarchy!!! Competition!!!
- Form Teams
- Elect Captain/Lieutenant

-Motivating Girls:

- Get girls to ‘care’
- Like Girl vs. Boy competition

-Competition

Being ‘On Top’ ... Being a Winner!!

-Competition

Being ‘Accepted’, liked, loved!!!²⁶³

This presentation did not include or reference a single scientifically valid study or piece of primary research to link these techniques specifically, or single-sex education in general, with improved academic outcomes.

Voluntariness/Coeducational Alternative: Students at Robinson Elementary were assigned to single-sex classrooms in the first year of the program in 2007-2008. In subsequent years the way in which Robinson handled student assignment appears to have varied from year to year, but it is not clear that an opt-out or a coeducational option was always available. For example, during at least one year of the program’s operation, parents who did not wish to participate in the single-sex classes were required to “open enroll their students to a different building,”²⁶⁴ raising questions about whether the coeducational alternative was “substantially equal.” When Robinson announced the expansion of the same-sex education program to third and fifth grades in 2009-2010, the school informed parents of rising third graders that they would be able to opt out, but a coeducational option does not appear to have been contemplated for parents of students entering the fourth or fifth grades.²⁶⁵

Moreover, there may have been differences between the boys’ and girls’ classes in terms of class size and teacher support—during at least one school year, school officials suggested making the

boys classes smaller and placing additional staff in the boys classrooms, effectively distributing unequal resources and opportunities between the boys' and the girls' single-sex classes.²⁶⁶

Flawed Evaluations: While it appears that Beloit School District attempted to conduct an assessment of satisfaction with one or both of these programs through a student survey, the results were anecdotal and misleading due to numerous methodological shortcomings. For example, the survey inquired only into the subjective experiences of students, rather than examining any objective measures of their achievement; it was administered only to students in the single-sex programs and thus lacked a control group against whom the benefits of the program could be measured; the students surveyed were the ones whose parents chose to enroll them in the program and thus were more likely to be pleased with its results; questions were leading (e.g. asking students to self-report whether their abilities and comfort in class have improved in a number of areas and failing to inquire about any negative effects of the program); and the possible answers did not include a “no change” option, simply asking whether they “agree” or “disagree” with the statement about their improvement.²⁶⁷ The survey thus contained significant flaws that limit its application as an evaluation tool.²⁶⁸

Neither program conducted any assessment of whether the program perpetuated sex stereotypes.

Janesville School District: Marshall Middle School

Program Description: Documents produced by the School District of Janesville in response to the open records request of November 11th, 2011, suggest that Marshall Middle School first proposed a single-sex education program in January of 2007, and that it approved a two-year pilot program in the 2007-2008 school year in sections of the sixth and eighth grades.²⁶⁹ Students were separated for “the core academic subjects of science, math, social studies and communication arts.”²⁷⁰ In 2008-2009, about 110 students at each grade level or one third of their total student population” participated in the single-sex program.²⁷¹ The pilot appears to have been expanded to sections the seventh grade in the 2009-2010 school year, and continued through 2010-2011.²⁷² For the 2011-2012 school year, the school board resolved to continue the program in the eighth grade, and in the sixth and seventh grade provided that Marshall had enough teachers to staff the classes and sufficient resources to train the teachers for those grades.²⁷³

Recent news reports indicate that, following the unanimous vote of the Personnel/Policy/Curriculum Committee to recommend that the full board end the program at the conclusion of this year,²⁷⁴ the Janesville Board of Education voted six to two to terminate the single-gender program on June 12, 2012.²⁷⁵ The Janesville Director of Instruction cited lack of student improvement in academics and lack of teacher enthusiasm as the reasons for its decision.²⁷⁶

Justification: In a proposal to the School District in 2006-07, the Principal's stated rationale for the program was a "recent explosion in brain research [that] has ushered in a wealth of information regarding how boys and girls learn, hear, see and cogitate differently."²⁷⁷ That these presumed learning styles were the primary justification for the program is evident throughout the documents presented to the School District. For example, one presentation asserts that "girls are 'pre-wired' to use the most advanced part of the brain, the cerebral cortex (front), to integrate their knowledge, feelings, sight, and hearing... [while b]oys utilize the hippocampus when synthesizing information."²⁷⁸ These differences, the proposals state, support the theory that single-sex education is "directly related to student achievement."²⁷⁹ Based upon these presumed differences, "Marshall staff plans to use the same curriculum but teach boys and girls in different ways to optimize natural learning styles."²⁸⁰

The need to institute this gender-differentiated teaching was justified by general statements regarding declines in performance for certain subjects and the "increasing disparity in achievement between genders" at a national level.²⁸¹ The proposals cite recognition of "the gap between boys and girls [*sic*] achievement . . . [specifically, in math, reading, computers, and science],"²⁸² and state that "[b]eginning in middle school, there is a decline in girls' performance in math and science as well as decreased participation in athletics. Boys stop reading for pleasure and oftentimes are 1.5 years behind girls in reading level."²⁸³ Tailoring teaching in response to these purported gender differences in learning and development would, administrators claimed, lead to improvements in "student achievement."²⁸⁴

The documents produced do not indicate that those who decided to implement the program based this decision on a nexus between the asserted justifications and the individualized educational needs of students at Marshall. The documents show no analysis of existing measures of student achievement or performance in the relevant grades and courses at Marshall prior to proposing the program. Though the proposal for the single-sex education pilot stated that "[b]aseline data will be collected at the beginning of the 2007-08 school year," this clearly had not occurred at the time the proposal was approved, so did not operate as a justification for it. Similarly, it is apparent that the program was not implemented as a part of an established program to improve student achievement through diverse educational options.

Nor was any valid data produced supporting a nexus between single-sex education generally, or the use of gender-specific teaching styles specifically, and improved academic outcomes. No published or peer-reviewed research appears to have been considered by the School District. Rather, the district relied entirely on anecdotal evidence, such as pointing to single-sex education programs in two other schools in other states where student achievement had purportedly improved,²⁸⁵ and on visits to other schools with single-sex classrooms.²⁸⁶ They also cited to unsupported statements made in a presentation by Sax that "several schools have successfully closed the achievement gap between black/white students" and that "girls in all girls classes did better" than in coed classes.²⁸⁷

Gender-Differentiated Teaching: There is significant evidence that the single-sex education programs in Marshall Middle School employed different teaching methods for boys and girls in their single-sex classrooms. The power point presentation school officials gave to the Janesville Board of Education outlined purported differences between how girls and boys learn.²⁸⁸ It stated that girls “hear differently, use a different part of the brain to process information; hierarchies destroy relationships; interact face-to-face; prefer eye contact; friendships with teachers enhance peer status; conversation is essential; self-revelation is a badge of friendship; and friendship is focused on each other.”²⁸⁹ Conversely, the presentation stated that boys “prefer competition and risk taking; teams; learn better in cooler classrooms (69 degrees); social hierarchies organize the camaraderie; interact side-by-side; minimal eye contact; view the teacher as adversary; conversation is peripheral; self-revelation is to be avoided; and friendship is focused on shared interests/games/activities.”²⁹⁰ The minutes of this presentation to the Board of Education state that the Principal of Marshall Middle School and members of the school staff highlighted these “[d]ifferences in learning styles” and explained how they plan to “teach boys and girls in different ways to optimize natural learning styles.”²⁹¹ The documents produced did not provide any facts about the curricula used for boys and girls, but claimed generally to “use the same curriculum, but teach boys and girls in different ways.”²⁹²

The same-sex program at Marshall Middle School also appears to have been heavily informed by the work of Sax. Marshall’s initial proposal to the Superintendent’s Advisory Committee cites information attained from “Sax’s presentation at the Midwest Regional SSE Conference in Chicago, Illinois (October, 2006)” as well as studies identified on the NASSPE website.²⁹³ Moreover, the proposal to the Board of Education states that Marshall “invited Sax to visit Janesville” and he agreed to serve as the school’s consultant.²⁹⁴ The power point presentations that Marshall’s Principal gave to the Board of Education in 2007, 2009, and 2011 all also stated that staff members had attended trainings by NASSPE and ASCD, an organization which uses David Chadwell as a consultant for single-sex education programs.²⁹⁵

Voluntariness: The school planned to use “an ‘implied consent’ process” under which students would be randomly placed²⁹⁶ into the single-sex classes, but could then opt out and choose to be moved to the coeducational classes after the fact.²⁹⁷ It is not clear precisely how or on what basis students were initially assigned to the program, whether or how parents were informed of their options, how they were to go about exercising the choice to opt out, or how long they were given to do so. This is because no forms or other communications containing such information were produced.

Flawed Evaluations: Marshall Middle School collected data on both academic and behavior outcomes both before and after the implementation of the sex separation. The initial proposal for the program stated that they would collect “baseline data... at the beginning of the 2007-08 school year. . . [and that,] in order to gain a comprehensive understanding of students aptitudes Grade 5 and 7 WKCE-CRT and MAP data will be pulled during the summer of 2007.”²⁹⁸ The school continued to track academic and behavior outcomes and presented the data to the board of education in 2008,²⁹⁹ 2009³⁰⁰ and 2011.³⁰¹

The data presented in the documents produced did not compare behavior outcomes before and after the implementation of the sex separation, but they did compare academic and behavior outcomes between boys and girls in the single-sex and co-ed classrooms. On balance, the meaning and significance of these statistics are equivocal, with limited improvement in one type of classroom over another and with neither program consistently prevailing over the other in academics. While we can only draw limited conclusions from this small and inconsistent data set, it does seem clear that single-sex education has not shown sustained and continuous improvement in academic achievement. In fact, this was one of the primary reasons the school board stated when it voted to discontinue the single-sex program in June of this year.³⁰²

Marshall Middle School also collected feedback from surveys of students and parents. For example, in a presentation to the Board of Education in 2008, Marshall's Principal reported that "37 parents participated in a satisfaction survey with an overwhelming majority indicating that single gender classes had made their student a better reader, writer, researcher, problem solver, thinker, friend and citizen."³⁰³ However, all of these satisfaction surveys share fundamental methodological problems that undermine the positive results they report. First, these surveys inquire solely into the experiences of parents who chose to keep their children in single-sex classes and thus are much more likely to be satisfied or pleased with the result.³⁰⁴ The surveys also ask leading questions about whether their child's participation or abilities have improved or increased in a number of areas³⁰⁵ and fail to inquire about any negative effects of the program or to include a "no change" option.³⁰⁶ Finally, the data is all anecdotal; there is no hard data about whether student performance actually improved in the single-sex classrooms.

Finally, the evaluations failed entirely to assess whether the programs promoted sex stereotypes.

La Crosse School District: Central High School

Program Description: Central High School operated girls-only classrooms in its ninth grade English and Algebra I classes.³⁰⁷ Both of these classes were offered as of the start of the 2011-2012 year and the girls-only English class was offered as early as 2009.³⁰⁸

Justification: The sole justification for the single-sex classes, contained in a single paragraph in a letter sent to parents, was "to provide a better learning environment for the student."³⁰⁹ The same letter and additional communications discussing the single-gender classes stated that in order "for teachers to provide a more meaningful education to the student," the teachers in single-gender classes would "adapt the instruction to meet the different learning styles of boys and girls."³¹⁰

Central High School provided no basis to support its claims that single-sex classes improve the learning environment for girls, or about the purported differences between boys and girls on which the decision was apparently based. Central also failed to produce any documents

quantifying the particular need for altering the learning environment for female students at Central High School in the particular classes in question. No documents were produced demonstrating that Central considered *any* data at all in support of its decision. Nor were any valid studies or educational data produced demonstrating any link between single-sex education and any improved academic or behavioral outcomes elsewhere.

Though Central High School did not detail the specific differences in the learning styles of boys and girls that it aimed to address, the evidence suggests that its program was premised on theories about the supposedly different brains and development of boys and girls. Letters inviting parents of Central students to sign up for single-gender classes instructed those who would like to “find out more information” to visit the website of NASSPE.³¹¹

There is no evidence that school administrators conducted any individualized assessment of students’ educational needs relating to English and Algebra I before implementing the program. On the contrary, it appears that neither the school nor the school board conducted any evaluation of student grades or other performance indicators in the grades or classes in question, or of any other school or district specific data. Nor was there any evidence that La Crosse School District had any established policy of offering diverse educational options to parents, or that the implementation of the program was aimed at improving student achievement through offering such options.

Flawed Evaluations: There is no evidence that the required bi-annual evaluation of the program took place.

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Endnotes

- 1 Michael Gurian & Arlette Ballew, *The Boys and Girls Learn Differently Action Guide for Teachers* 100 (2003).
- 2 For over thirty years Department of Education (DOE) regulations implementing Title IX had interpreted 20 U.S.C. § 1681, in essence, to mean what it says. DOE regulations thus prohibited coeducational schools from segregating students by sex for classes or other activities in almost all circumstances, with very narrow exceptions for sex education and contact sports. See 45 Fed. Reg. 30,955, 30,960-30,961 (May 9, 1980). Because Title IX includes an exception for admissions to elementary and secondary schools, 20 U.S.C. § 1681(a)(1), it has not most often been understood to prohibit single-sex *schools*, as opposed to classrooms, though the Equal Protection Clause limits school districts' ability to create such programs. In addition, current Title IX regulations require that—with some important exceptions for charter schools, described above—if a district operates a single-sex school, it must provide a substantially equal educational opportunity to the excluded sex. 34 C.F.R. § 106.34(c).
- 3 Sue Klein, Feminist Majority Foundation, *State of Public School Sex Segregation in the United States 2007-2010: Part I: Patterns of K-12 Single-sex Public Education in the U.S.* 3, 14 (2012).
- 4 Pedro A. Noguera, *Saving Black and Latino Boys*, 93 Phi Delta Kappan, Feb. 3, 2012, at 8 (explicitly refuting that single-sex classes are a component of successful schooling for low-income African-American and Latino boys), available at http://www.edweek.org/ew/articles/2012/02/03/kappan_noguera.html.
- 5 See 45 Fed. Reg. 30,955, 30,960-30,961 (1980).
- 6 For instance, Leonard Sax, a founder of the National Association for Single-Sex Public Education (NASSPE) claims in the introduction to his book *Why Gender Matters* that there are “hardwired differences in how boys and girls learn”; Michael Gurian claims in his book *The Minds of Boys* that “[o]ur parental instinct at the playground is now validated by scientific findings regarding fundamental differences in male and female hardwiring. . . .” Leonard Sax, *Why Gender Matters: What Parents and Teachers Need to Know About the Emerging Science of Sex Differences* 4 (2005) [hereinafter “Sax, *Why Gender Matters*”]; Michael Gurian and Kathy Stevens, *The Minds of Boys: Saving our Sons from Falling Behind in School and Life* 41 (2005) [hereinafter “Gurian and Stevens, *Minds of Boys*”]. David Chadwell notes that the “hard-wiring” theory is controversial, then concludes that teachers who reflect on their experience cannot help but see their students through the “hard-wiring” prism, which will “possibly” help them better to meet the needs of their students. David Chadwell, *A Gendered Choice* 18-20 (2010). As Lise Eliot notes, “[t]he notion that sex differences in the brain, because they are biological, are necessarily innate or fixed is perhaps the most insidious of the many public misunderstandings on this topic. Neuroscientists know that, in the absence of proof of genetic or hormonal influence, any sex difference in adult neural structure or function could be shaped through experience, practice, and neural plasticity.” Lise Eliot, *The Trouble with Sex Differences*, 72 *Neuron* 895, 897 (2011) [hereinafter “Eliot, *Trouble*”].
- 7 Diane Halpern et al., *The Pseudoscience of Single-Sex Schooling*, 333 *Science* 1706, 1707 (2011) [hereinafter “Halpern et al., *Pseudoscience*”].
- 8 Leonard Sax, *Six Degrees of Separation: What Teachers Need to Know about the Emerging Science of Sex Differences*, *Educ. Horizons* 190, 195 (2006).
- 9 See Sax, *Why Gender Matters*, *supra* note 6, at 18, 86, 88-92, 108-112.
- 10 See *id.* at 90-92.
- 11 Gurian and Ballew, *supra* note 1, at 17, 75, 90-92, 100.
- 12 Chadwell, *supra* note 6, at 143.
- 13 “Neuroscientists have found few sex differences in children’s brains beyond the larger volume of boys’ brains and the earlier completion of girls’ brain growth, neither of which is known to relate to learning.” Halpern et al., *Pseudoscience*, *supra* note 7, at 1706 (citation omitted).
- 14 *Id.*
- 15 Lise Eliot, *Pink Brain, Blue Brain* 10-11, 305 (2009).
- 16 See Noguera, *supra* note 4; Fred Mael, et al., U.S. Dep’t of Educ., *Single-Sex Versus Coeducational Schooling: A Systematic Review* x, xv (2005) (surveying existing literature and concluding that support for improved outcomes from single-sex education was “equivocal”) [hereinafter “Mael 2005”]; see also *infra* note 18.
- 17 See Mael 2005, *supra* note 16, at 5, 7-8; Halpern et al., *Pseudoscience*, *supra* note 7, at 1706.
- 18 Halpern et al., *Pseudoscience*, *supra* note 7, at 1706 (citing Mael 2005, *supra* note 16); Alan Smithers and Pamela Robinson, *The Paradox of Single-Sex and Co-Educational Schooling* (Univ. of Buckingham, 2006); Terri Thompson and Charles

Ungerleider, Canadian Centre for Knowledge Mobilisation, *Single Sex Schooling: Final Report* (2004); Herbert Marsh and Kenneth Rowe, *The Effects of Single-Sex and Mixed-Sex Mathematics Classes Within a Co-educational School: A Reanalysis and Comment*, 40 *Aust. J. Educ.* 147 (1996); Richard Harker, *Achievement, Gender and the Single-Sex/Coed Debate*, 21 *Br. J. Sociol. Educ.* 203 (2000); Org. for Econ. Co-operation and Dev., *Equally Prepared for Life?* (2009); C. Kirabo Jackson, *Single-sex schools, student achievement, and course selection: Evidence from rule-based student assignments in Trinidad and Tobago*, 96 *J. of Public Econ.* 173 (2012).

19 See Noguera, *supra* note 4.

20 *United States v. Virginia*, 518 U.S. 515, 531, 533 (1996).

21 *Id.*

22 20 U.S.C. § 1681.

23 Brief for the United States as Amicus Curiae Supporting Appellants at 16, *Doe ex rel. Doe v. Vermilion Parish Sch. Bd.*, 421 F. App'x 366 (5th Cir. 2011) (No. 10-30378).

24 34 C.F.R. § 106.34(b)(1)(i); see 71 Fed. Reg. 62,530, 62,534-62,535 (Oct. 25, 2006).

25 34 C.F.R. § 106.34(b)(1).

26 *Id.*

27 Currently there is no source that keeps a definitive list of all single-sex classrooms in public schools in the United States. While in some cases we attempted to send information requests to each single-sex public education program that we were able to identify within a state, in other cases, depending on capacity, we selected schools based on a variety of factors, including geography, population density, and whether publicly available evidence suggested that programs were based on sex-stereotype teaching models.

28 Although our information requests varied slightly based on the state and any publicly available information about a given program, all asked for the same core information: Records describing any single-sex classrooms or programs that the school or district has operated; how and why the program was developed; research and studies relied on in instituting the programs; how students were assigned to these programs; what, if any, alternatives were available; how students and parents were informed of their ability to opt in or out of these programs; any training that teachers in single-sex programs received; any differences between the methods, resources, or curricula used in the single-sex classes (both between boys' and girls' classes and between the single-sex and the coed classes, if any); and any evaluations performed on the programs.

29 Freedom of information laws generally obligate schools to produce records that they have in their possession up to the date of the request, but they do not require that schools create documents or answer specific questions regarding their context, meaning, or purpose. Thus, even when documents were produced, there was often little information on how they were created or used, and the conclusions we were able to draw were limited accordingly. While we attempted to contact schools when the records they provided had obvious gaps or omissions, sometimes we were obligated to assume that schools or districts had produced all the responsive records they had in accordance with the law. Additionally, even though we made the same core requests of each school or district, the information that we received varied widely because of differences in the size and type of schools and single-sex programs involved, the record-keeping policies of the schools, differences in the responses as permitted by local law, and the dates of the requests.

30 This report does not represent a quantitative or comprehensive analysis of every single-sex program in a publicly funded coeducational school in the United States. Such an investigation would be impossible to conduct given the lack of uniform reporting requirements or oversight over single-sex education programs and the concomitant difficulty of identifying all such programs, much less the difficulty entailed by—and the low likelihood of ultimately obtaining—compliance and complete documentation from all such programs. Nor did our investigation aim to reflect a representative sample of schools or school districts, but rather, focused on schools and districts suspected of running single-sex education programs that were out of compliance with one or more of the applicable legal requirements. The report therefore does not draw conclusions about the percentage of programs that embodied the particular characteristics or legal flaws we were investigating. However, the programs in the 21 districts described below are representative of the single-sex programs that have responded to our freedom of information requests.

31 34 C.F.R. § 106.34(b)(1) (2011); *Id.* § 106.34(b)(1)(i) (requiring that schools justify the adoption of separated programs by demonstrating a substantial relationship between the single-sex nature of the program and improvement in student achievement, or by describing particular, identified educational needs of the district's students).

32 *Id.*

33 These schools included Adrian Middle and High Schools in Adrian, Missouri; Woodbridge Middle School in Woodbridge, Virginia; Van Devender Middle School of Wood County, West Virginia; and Robinson Elementary School of Beloit, Wisconsin (partial reproduction).

- 34 Boys Adrift, <http://www.boysadrift.com/gender.php> (last visited Aug. 12, 2012). Many schools appear to have obtained these bullet points not from the *Boys Adrift* website, but indirectly from a PowerPoint presentation by Skyles Calhoun, Principal, Woodbridge Middle Sch., Presentation: Introducing Same Gender Classrooms in a Coed Middle School, *available at* <http://woodbridgems.schools.pwcs.edu/modules/groups/homepagefiles/cms/206532/File/Same%20Gender/Same%20Gender%20Orientation.pdf> [reproducing similar material by Leonard Sax] [hereinafter “Calhoun, ‘Introducing’ ”]. However, the Franklin Academy in Florida reproduces these bullet points almost in their entirety and attributes them to Sax, *Why Gender Matters*, *supra* note 6. Florida Charter Foundation, 2011 Charter Application for Campus “B” of Franklin Academy, The School District of Palm Beach County 3, <http://www.palmbeach.k12.fl.us/agenda/Tuesday,%20November%202016,%202010%20School%20Board%20Meeting/3858EF7F-B105-4F97-9A69-DDC865A1452B.pdf>.
- 35 This statement was allegedly supported by a study that actually found “a difference between boys and girls, but it was a matter of cyclic phase, not a years-long developmental delay in either sex. The same brain areas showed recurrent developmental spurts in both sexes, making it impossible to say that one area matures earlier than the other in either boys or girls.” Eliot, *Trouble*, *supra* note 6, at 895.
- 36 The “claim—that in processing language, men are left lateralized whereas women exhibit more symmetrical activation of left and right hemispheres—has been largely refuted through meta-analysis. . . . Although the issue is far from resolved—some evidence suggests that a sex difference in degree of lateralization may pertain to more specific types of language tasks—any difference in language or other functional lateralization between males and females is clearly much subtler than these popular portrayals.” *Id.* at 897-98.
- 37 “There is no functionally significant difference between boys and girls in auditory sensitivity. . . . And it’s crucial to keep in mind that at every age, individual differences among boys and among girls are large compared to the average differences between the groups.” M. Liberman, *Sexual pseudoscience from CNN* (Jun 19, 2008); <http://languageblog ldc.upenn.edu/nll/?p=260>.
- 38 Noting that these claims are “[e]xtrapolat[ed] from research on adults’ cardiovascular regulation,” Halpern et al. observe that “[i]n his books, Web site, and teacher-training programs, Sax rationalizes different educational experiences for boys and girls by using obscure and isolated findings about brain maturation, hearing, vision, and temperature sensitivity. Although scientists have debunked many such claims as ‘pseudoscience,’ this message has yet to reach many educators who are implementing such recommendations in single-sex classes within coeducational schools.” Halpern et al., *Pseudoscience*, *supra* note 7, at 1707 (citations omitted).
- 39 34 C.F.R. § 106.34(b)(1) (requiring that schools justify the adoption of separated programs by demonstrating a substantial relationship between the single-sex nature of the program and improvement in student achievement, or by describing particular, identified educational needs of the district’s students).
- 40 *Id.*
- 41 Elizabeth Weil, *Teaching Boys and Girls Separately*, *N.Y. Times*, Mar. 2, 2008. Different temperatures and/or lighting were also employed in single-sex classes as described in Peg Tyre, *Boy brains, girl brains: Are separate classrooms the best way to teach kids?*, *Newsweek*, Sep. 19, 2005; Middleton Heights Elementary School in Middleton, Idaho, Letter from Robin Gilbert, Principal, Middleton Heights Elementary Sch., to Parents, Middleton Heights Elementary Sch. (Apr. 3, 2006) [hereinafter “Gilbert, Parent Letter”], Woodbridge Middle School in Woodbridge, Virginia, Woodbridge Middle School, PowerPoint Presentation: Same Gender Classes (June 2011), and Van Devender Middle School in Wood County, West Virginia, Education Alliance, *Do Boys and Girls Learn Differently? Van Devender Middle School*, <http://www.youtube.com/watch?v=Va5A69P4kc&feature=share> [hereinafter “Van Devender Video”].
- 42 See Sax, *Why Gender Matters*, *supra* note 6, at 83, 86. Schools that left records that they had implemented this strategy included Middleton Heights Elementary School (see Gilbert, Parent Letter, *supra* note 41; Christin Runkle, *Students Succeed in Gender-Separate Classrooms*, *Idaho Press-Tribune*, June 18, 2007, <http://www.idahopress.com/articles/2007/06/18/news/news1.prt>) and Van Devender Middle School (Van Devender Video, *supra* note 41). Other schools may have implemented this policy without leaving record of doing so.
- 43 Gurian and Ballew, *supra* note 1, at 39; Gilbert, Parent Letter, *supra* note 41; Van Devender Video, *supra* note 41; Runkle, *supra* note 42.
- 44 Transition Committee, Pittsburgh Public Schools, Working Groups: A report of the October 12 working session.
- 45 Woodbridge Middle School, Staff Poll: Interest in Teaching Same Gender Classes, 2007-2008.
- 46 See Charles Potter, *Single Gender Classrooms*, *December News*, (Willard Sch., Sanford, Me.), Dec. 2009.
- 47 Gender Differences that Make a Difference in the Classroom, Presentation at a Single Gender Conference in Madison, WI (June 2011) (unattributed).
- 48 “Research has demonstrated that, when environments label individuals and separate along some characteristic (e.g., gender, eye color, or randomly assigned t-shirt groups), children infer that the groups differ in important ways and develop increased intergroup biases.” Halpern et al., *Pseudoscience*, *supra* note 7, at 1707 (citations omitted).

49 Noguera, *supra* note 4, at 8; Beatriz Clewell et al., Good Schools in Poor Neighborhoods: Defying Demographics, Achieving Success (2007).

50 Proposal of Innovation to Establish Single Gender Pilot—Approved 7/1/04 at 2-3 (quoting *Let Boys Be Boys*, National Post, Mar. 3, 2003, available at <http://www.singlesexschools.org/links-letboys.htm>, in which Sax is quoted approvingly).

51 See Karen Frederick, Effects of Single-Gender Education on Student Achievement, Discipline Referrals, and Attendance at the Intermediate School Level (August 2006) (Research Study, University of South Alabama College of Education) at 2-3.

52 See *supra* note 41 and accompanying text.

53 Weil, *supra* note 41.

54 See Lee Mansell, Principal, Foley Intermediate Sch., Presentation at NASSPE Conference: Establishing a Single Gender Program in a Public School District (Oct. 12, 2008) at 3.

55 See Lee Mansell, Guest Lecture Posts for University of South Alabama Online College Course, EDL 621: Seminar in Program and Curriculum Development, (March 2005), <http://usaonline.southalabama.edu>.

56 See Weil, *supra* note 41.

57 Proposal of Innovation, *supra* note 51, at 3.

58 Mansell, Guest Lecture Posts, *supra* note 56.

59 Mansell, Establishing a Single Gender Program, *supra* note 55, at 3.

60 *Id.* at 1.

61 *Id.* at 15.

62 Telephone conversation with Afrika Parchman, General Counsel, Birmingham City Sch. (Feb. 9, 2012).

63 The documents provided to us are the only responsive documents in existence. *Id.*

64 Documents provided by the school district used to develop its programs included Michael Gurian’s book *Boys and Girls Learn Differently: A Guide for Teachers and Parents* and an article in which a training director for the Gurian Institute was quoted. In a telephone conversation of February 9, 2012, school representatives confirmed that a “book by Gurian” is “likely” used in teacher trainings, is in the possession of school principals, and is possibly also circulated to teachers in single-sex classrooms. Parchman conversation, *supra* note 63.

65 *Id.*

66 Summary of Findings: Same-Gender Classrooms at 15 of 15 (undated study of reading and mathematics scores at four Birmingham City schools: Central Park Elementary, Glen Iris Elementary, Wenonah K-8, and Huffman Middle School).

67 Council Middle School 200[9]-10 Discipline Report (unattributed; report run June 28, 2010); Telephone conversation with John Oliver, Attorney for the Tallapoosa County Bd. Of Educ. (Sep. 7, 2011).

68 Oliver conversation, *supra* note 68.

69 *Id.*

70 See Unsigned Letter from Lillian DiTucci, Assistant Principal, Westside Elementary, to Parents at Westside Elementary (April 2009); Westside Elementary 2009-2011 Florida Department of Education Equity Report.

71 See DiTucci, *supra* note 71.

72 See Westside Equity Report, *supra* note 71.

73 Minutes of the Regular Meeting (Feb. 6, 2007) (Meeting Minutes, The Sch. Board of Hernando County, Fla.) §H at 8; Request for Placement on School Board Agenda (The Sch. Board of Hernando County, Fla., Agenda Item VIII.H., 2007).

74 Westside Elementary, Presentation to the School Board: Single Gender Education Program 2007-2010, (May 4, 2010) at 4, 6.

75 *Id.* at 5.

76 See *id.* at 7-8; Westside Elementary, *Westside Elementary Single Gender Program 2007-2010*.

77 Westside Elementary, *2007-2010 Single Gender Program SWOT Analysis*.

78 For instance, students were instructed to agree or disagree on a range of 1 to 5 with the statements “I am more comfortable learning in a single gender classroom than in a mixed gender classroom,” “I feel that I have fewer distractions in a single gender classroom,” and “I enjoy school more in a single gender classroom.” Survey Completed by Westside Elementary Parents: Single Gender Survey - Fall Parent Survey 2009; Survey Completed by Westside Elementary Students: Single Gender Survey—Fall Student Survey 2009; Survey Completed by Westside Elementary Teachers: Single Gender Survey—Fall Teacher Survey 2009.

- 79 See Westside Elementary, Presentation, *supra* note 75, at 10; Westside Elementary, *SWOT Analysis*, *supra* note 78.
- 80 See Letter from Michelle Pescatrice, Principal, Orangewood Elementary, to Joseph Donzelli, Communications Dir., The Sch. District of Lee County, (Undated reply to Dec. 28, 2011 request) at 1.
- 81 *Id.* at 1.
- 82 Orangewood Elementary Unique School/Program Abstract (Proposal signed by Michelle Pescatrice, Principal) (printed May 9, 2006) at 1.
- 83 See NASSPE, Abstract, *Single-Sex vs. Coed: The Evidence* (Nov. 2005).
- 84 See Tyre, *supra* note 41 and accompanying text.
- 85 See Wesley Sharpe, Excerpt, *Single-Gender Classes: Are They Better?*, Education World, Apr. 17, 2000; The Principals' Partnership, *Research Brief*, Jul. 14, 2004.
- 86 Jesse J. Logan, Abstract, *Separate and Unequal? Multiple problems in single-sex schools*, Psychol. Today (2001), describing Amanda Datnow et al., *Is Single Gender Schooling Viable in the Public Sector? Lessons from California's Pilot Program* (Final Report to the Ford and Spencer Foundations, Ontario Inst. for Studies in Educ., 2001).
- 87 Orangewood Elementary, The Academy Parent Handbook 2011-2012, at 2; See Dave Breitenstein, *First Boys-Only Class Makes the Grade on FCAT*, The News-Press, undated.
- 88 See Pescatrice, *supra* note 81, at 1.
- 89 *Id.*
- 90 See *id.*
- 91 See *id.*
- 92 See *id.*
- 93 See Letter from Ron Pinnell, D.Ed., Exec. Dir. of Human Resources and Professional Standards, Seminole County Public Sch., to Mie Lewis, Senior Staff Attorney, ACLU (Feb. 16, 2012), at 3; Seminole High School, 2008-2011 Discipline Data for Single-Sex Classes (unattributed, undated).
- 94 Pinnell, *supra* note 94, at 3.
- 95 Articles provided included Jim Rex and David Chadwell, *Feature: Single-Gender Classrooms*, 66 The Sch. Administrator 28 (2009), available at <http://www.aasa.org/SchoolAdministratorArticle.aspx?id=5638>; Valerie Lee and Helen Marks, Abstract, *Sustained effects of the single-sex secondary schools experience on attitudes, behaviors, and values in college*, 82 J. of Ed. Psychol. 578 (1990); U. Kessels and B. Hannover, Abstract, *When Being a Girl Matters Less: Accessibility of Gender-Related Self-Knowledge in Single-Sex and Coeducational Classes and Its Impact on Students' Physics-Related Self-Concept of Ability*, 78 Brit. J. of Ed. Psychol. 273 (2008).
- 96 See Email from Mike Gaudrau, Principal, Seminole High Sch., to Ron Pinnell, Exec. Dir. Seminole County Pub. Sch. (received Feb. 9, 2012).
- 97 See *id.*
- 98 See *id.*; Discipline Data, *supra* note 94.
- 99 Presentation by Middleton Heights Elementary Sch. Students to Middleton Sch. Board: Middleton School Board Report (Jan. 9, 2007).
- 100 Robin Gilbert, Principal, Middleton Heights Elementary Sch., Presentation Delivered at 2009 NASSPE Conference: Just Don't Say S-E-X: How to Implement Single-Sex Classrooms in a Conservative Rural District (2009).
- 101 See Gender Class Parent Meeting, (May 3, 2012) (Unsigned meeting agenda).
- 102 Such works included, but were not limited to: Gurian and Stevens, *Minds of Boys*, *supra* note 6; Sax, *Why Gender Matters*, *supra* note 6; Chadwell, *supra* note 6; Abigail Norfleet James, *Teaching the Male Brain* (2007); Abigail Norfleet James, *Teaching the Female Brain* (2009); Elizabeth Hartley-Brewer, *Praising Boys Well* (2006); Kathleen Palmer Cleveland, *Teaching Boys Who Struggle in School: Strategies That turn Underachievers into Successful Learners* (2011); Paul Slocumb, Ed.D., *Hear Our Cry: Boys in Crisis* (2004). See E-mail from Robin Gilbert, Principal, Middleton Heights Elementary Sch., to Ritchie Eppink, Legal Dir., ACLU of Idaho (July 3, 2012).
- 103 Gilbert, Parent Letter, *supra* note 41; see also *supra* notes 41-43 and accompanying text.
- 104 Runkle, *supra* note 42.
- 105 Board Report, *supra* note 100.
- 106 See Survey Completed by Middleton Heights Elementary Sch. Teachers: Gender Survey 2009.

- 107 Abigail Norfleet James, Presentation, Teaching the Female Brain: Especially Math and Science (October 2008).
- 108 *Id.* at 13.
- 109 Survey Completed by the Middleton Heights Elementary Sch. Parents: Middleton Heights Parent Survey [2012] at 1, 2.
- 110 Gilbert e-mail, *supra* note 103.
- 111 *Id.*; see Teacher and Class Requests from Middleton Heights Elementary Sch. Parents for 2012-2013 School Year (Spring/Summer 2012).
- 112 The school did provide an agenda from a “Gender Class Parent Meeting” on May 3, 2012, which made no mention of a parent’s ability to opt in or out of single-sex classes.
- 113 Gilbert, Parent Letter, *supra* note 41.
- 114 See *Single Gendered Sixth Grade Classroom Pilot* [May 5, 2009] (proposal describing history of program’s initiation and its goals); Charles Potter, et al., Presentation to the Sanford Sch. Dep’t Sch. Comm.: Single Gender Based Classrooms (May 11, 2009).
- 115 Nancy Protheroe, *Single Sex Classrooms*, Principal, May/June 2009, 32, at 35.
- 116 See *Classroom Pilot*, *supra* note 115.
- 117 *Id.*
- 118 See Charles Potter, *Single Gender Classrooms*, *supra* note 46.
- 119 In a presentation on single-sex classrooms made to the Sanford School Department’s School Committee, under the heading “Criteria to be in this program at Willard School,” the school stated that “[o]ur [single-sex] classrooms may have gifted and talented students as well as self-contained special education students. Observations have shown that a classroom’s learning environment does not benefit students when high concentrations of behavioral issues or academic struggles are clustered.” Potter, Presentation, *supra* note 115, at 4.
- 120 See Willard School, *Single Gender Class Data: End of the Year 2010*; Willard School, *Single Gender Class Data: End of the Year 2011*, (Jun. 20, 2011); Willard School, *Sixth Grade Student Survey* (Jun. 16, 2011); Willard School, *Sixth Grade Parents Survey* (Jun. 16, 2011).
- 121 See Letter from Ben Burnett, Superintendent of Educ., Lamar County Sch. District, to Bear Atwood, Legal Dir., ACLU of Mississippi (Jan. 10, 2012).
- 122 *Id.*
- 123 *Id.*
- 124 Amy Novotney, *Coed versus single-sex ed*, 42 Am. Psychol. Ass’n 58, (2011); Connie Mattheissen, *Girls’ and boys’ brains: How different are they?*, Great Schools, <http://www.greatschools.org/print-view/parenting/social-skills/1121-gender-differences-lear...> [full URL not visible; printed Jan 6, 2012]; Kristin Stanberry, *Single-Sex Education: The Pros and Cons*, Great Schools, <http://www.greatschools.org/print-view/find-a-school/defining-your-ideal/1139-single-sex-e...> [full URL not visible; printed Jan. 6, 2012].
- 125 See Leonard Sax, Commentary, *The Promise and Peril of Single-Sex Public Education: Mr. Chips Meets Snoop Dogg*, Education Week, Mar. 2, 2005; Leonard Sax, *Updates and Corrections to Why Gender Matters*, Why Gender Matters, <http://www.whygendermatters.com>; Sax, *Why Gender Matters*, *supra* note 6 (book reviews and biography); Why Gender Matters, <http://www.whygendermatters.com>; NASSPE, *Single-Sex vs. Coed: The Evidence*, <http://www.singlesexschools.org/evidence.html>; NASSPE, *The Legal Status of Single-Sex Public Education*, <http://www.singlesexschools.org/legal.html>; Kelly Collins, *Single-Gender Classrooms* (April 2008) (containing statements, inter alia, that “Girls and Boys . . . play differently; fight differently; hear differently; see the world differently; learn differently”).
- 126 In response to a Sunshine Act request, the district produced Cathoun, “Introducing,” *supra* note 34 [see *supra* notes 33-38 and accompanying text]; *Research Spotlight on Single-Gender Education*, NEA, <http://www.nea.org/tools/17061.htm> (printed from NEA website Sep. 9, 2011); Leonard Sax, *Why Gender Matters: What teachers need to know about the emerging science of sex differences*, <http://www.leonardsax.com>; David Chadwell, *Single-Gender Classes Can Respond to the Needs of Boys and Girls*, ASCD; Davean Rae Kurtz, *Administrators: Single-gender classes have boosted test scores*, Pittsburgh Tribune-Review, May 3, 2010.; *Learning Style Differences: What are some differences in how girls and boys learn?*, NASSPE, <http://www.singlesexschools.org>; *What’s Happening to Boys?*, NASSPE, <http://www.singlesexschools.org>; *Classroom Bias Favors Boys*, unattributed; *Advantages for Girls*, NASSPE, <http://www.singlesexschools.org>; *Single-Sex Schools/Schools with single-sex classrooms/what’s the difference?*, NASSPE, <http://www.singlesexschools.org>.
- 127 See the sources listed *supra* note 127.
- 128 See Letter from Christopher E. Shanks, Middle Sch./High Sch. Principal, and Carrie Eldson, Dir. of Curriculum and Instruction, to “Blackhawk Parents” (Aug. 17, 2011). See Letter from Christopher E. Shanks, Middle Sch./High Sch.

Principal, and Carrie Eldson, Dir. of Curriculum and Instruction, to “MS Blackhawk Parents” (Aug. 26, 2011). The August 17 letter informs parents that students were assigned to single-sex classes in the sixth to eighth grades and some high school classes, apologizes that “this information did not reach you prior to the start of school,” describes the purported benefits of single-sex schooling, informs parents that they have the right to request coeducational or single-sex classes, and finally states that “[i]f you are willing to allow us the opportunity to implement the gender-specific classes that are on your child’s schedule, there is no need to contact the office. If any of the classes fill up, unfortunately we will be forced to abandon this concept and adjustments will be made to the schedule.”

- 129 See Application to the North Carolina State Board of Education et al. for Cooperative Innovative High School Programs: Wake Young Men’s Leadership Academy [hereinafter “Young Men’s Application”]; Application to the North Carolina State Board of Education et al. for Cooperative Innovative High School Programs: Wake Young Women’s Leadership Academy [hereinafter “Young Women’s Application”].
- 130 See Young Men’s Application, *supra* note 130; Young Women’s Application, *supra* note 130.
- 131 Young Men’s Application, *supra* note 130 at 7; Young Women’s Application, *supra* note 130 at 7.
- 132 See Heather Moore, *Wake Leadership Academies rush to get ready for students*, News 14 Carolina, July 13, 2012, http://triangle.news14.com/content/top_stories/660778/wake-leadership-academies-rush-to-get-ready-for-students.
- 133 The purpose of the Cooperative Innovative High School Program is to “[A]uthorize local boards of education to jointly establish with one or more boards of trustees cooperative innovative programs in high schools and colleges or universities that will expand students’ opportunities for educational success through high quality instructional programming.” Current Operations and Capital Improvement Appropriations Act of 2011, N.C. Sess. Law, 2011-145, House Bill 200, § 115C-238.50, 38, 39 (2011).
- 134 See Power Point Presentation: Leadership Academies–Serving grades 6-12 (unattributed, undated).
- 135 Power Point Presentation: Wake Leadership Academy, A New Early College Middle & High School Option for 2012-2013 at 3(unattributed, undated).
- 136 *Id.* For a discussion of the gray vs. white matter issue, see Eliot, *Trouble*, *supra* note 6, at 895-896.
- 137 *E.g.*, Stephanie Baric et al., CARE, *The Power to Lead: A Leadership Model for Adolescent Girls*, (2009); Global Kids, Inc. with the support of The After-Sch. Corp., *Teen Action: Achieving Change Together In Our Neighborhood*, A Service Learning Initiative funded by the N.Y.C. Dept. of Youth & Community Development and Center for Economic Opportunity.
- 138 *E.g.*, Julie Wood and Josephine Ramage, *The Young Women’s Leadership Sch. of Brooklyn*, Power Point Presentation: *Creating Safe Spaces for Adolescent Girls*; Kim Roberts et al., *Young Women Leaders Program*, Presentation at the National Conference on Girls Education: *Opening the Doors to Community: Three Models for School-To-Community Partnerships* (Feb. 2012); Meredith Moore, *Girls, Inc., The Supergirl Dilemma: Girls Grapple With The Mounting Pressure of Expectations*, (Alexander Kopelman ed., 2006); Emily Brostek, *Training Institute*, Presentation at the National Conference of Girls’ Education: *Re-Defining Gender Expectations Through Girls’ Coalition Groups* (Apr. 2012).
- 139 *E.g.*, Catherine Hill et al., AAUW, *Why So Few? Women in Science, Technology, Engineering and Mathematics*, (2010); Slideshow of statistics about girls and women in STEM (unattributed).
- 140 National Data Points: *Single Gender Schools* (unattributed, undated); PowerPoint Presentation: *A Proposed 6-12 Leadership Academy* (unattributed, undated). The school district failed to consider data suggesting that despite these reported high graduation rates, while Urban Prep’s first class started with 150 students, it graduated only 107 (71%) in 2010; administrators claimed most of the students who did not finish simply moved away or moved into neighborhoods that were too dangerous to cross to get to school. See Duaa Eldeib, *Every Urban Prep senior is college-bound*, Chi. Trib., Mar. 5, 2010, http://articles.chicagotribune.com/2010-03-05/news/ct-met-urban-prep-college-20100305_1_metal-detectors-college-school-leaders; Chris Lehmann, *Urban Prep and the Whole Story*, Practical Theory (Mar. 14, 2010), <http://practicaltheory.org/serendipity/index.php?/archives/1232-Urban-Prep-and-The-Whole-Story.html>.
- 141 See Young Women’s Application, *supra* note 130.
- 142 Thomas C. Reeves, Wisconsin Policy Research Institute, *Commentary, Single-Sex Schools* (Sep. 28, 2006) (quoting Sax, *Why Gender Matters*, *supra* note 6).
- 143 *E.g.*, AAUW Educ. Found., *Beyond the “Gender Wars:” A Conversation About Girls, Boys, and Education*, (Feb. 2001); Sara Mead, *Education Sector, The Evidence Suggests Otherwise: The Truth About Boys and Girls* (June 2006); Nancy Protheroe, *Single-Sex Classrooms*, Principal, May/June 2009 at 32; Linda Sax, Ph.D., et al., *The Sudikoff Family Institute for Education & New Media, Women Graduates of Single-Sex and Coeducational High Schools: Differences in Their Characteristics and the Transition to College* (2009).
- 144 See, *e.g.*, Mael 2005, *supra* note 16 at x, xv; Cornelius Riordan et al., U.S. Dep’t of Educ., *Early Implementation of Public Single-Sex Schools: Perceptions and Characteristics 8-9* (2008).

- 145 Interview with Teresa Pierrie, Principal of Wake Young Women's Leadership Acad., Wake Forest-Rolesville High School Forest Fire, (Undated Student Newspaper).
- 146 Mael 2005, *supra* note 16, at x, xv.
- 147 East Region Advisory Committee, *Final Recommendations to the Superintendent* (Mar. 25, 2010) at 2.
- 148 Why Single Gender Schools? (Factsheet on single-gender schools, The Young Women's Academy and the Eagle Academy for Men).
- 149 Transition Committee, Pittsburgh Public Schools, Working Groups: A report of the October 12 working session.
- 150 *Id.*
- 151 See Pittsburgh Public Schools, *The Young Men's Academy 6-12 at Pittsburgh Westinghouse*.
- 152 See Amy Woodward, Ph.D., Principal, Mechanicsville Elementary School: Single Gender Class Proposal (Undated) at 1 [hereinafter "Woodward Proposal"].
- 153 See *id.* at 2.
- 154 See Letter from Amy Woodward, Ph.D., Principal, Mechanicsville Elementary Sch., to Parents, Mechanicsville Elementary Sch. (undated letter referencing the implementation of single-sex classes for "the past five years").
- 155 Woodward Proposal, *supra* note 153, at 2. See Letter from Yvonne Wellford, Senior Assistant Cnty. Attorney and Counsel to the Hanover Cnty Sch. Board to Katherine Greenier, Dir. and Patricia Arnold, ACLU of Virginia [Apr. 19, 2012] (Response to Freedom of Information Act request to Mechanicsville Elementary School for Records). This letter indicates, "I understand that Dr. Woodward and her staff have principally relied on Why Gender Matters, by Dr. Leonard Sax, in choosing to institute Mechanicsville's single-gender classrooms." In a PowerPoint presentation given to parents, Mechanicsville explained the rationale for the program: "There are many biological differences between males and females that cause them to think, learn, see, hear, communicate, and feel differently." See PowerPoint Presentation: Same Gender Classrooms Parent Forum 2006 (unattributed). The first slide of this PowerPoint notes, "Facts and data used to create this presentation are taken from Leonard Sax, M.D., Ph.D.'s book Why Gender Matters."
- 156 Woodward Proposal, *supra* note 153, at 2.
- 157 *Id.* at 3.
- 158 *Id.* at 2.
- 159 *Id.*
- 160 Parent Forum, *supra* note 156.
- 161 Background on Single Gender Program Introductory Remarks (Talking points/presentation notes for Amy Woodward and Kevin Layne on single-sex pilot program at Mechanicsville Elementary School, Undated).
- 162 Mechanicsville's single-sex program proposal indicated that the third grade teachers "identified students who could benefit from this program," and "a parent mailing was completed with an opt-out option." Woodward Proposal, *supra* note 153, at 3.
- 163 Introductory Remarks, *supra* note 162.
- 164 Woodbridge's proposal to expand the program after the initial pilot year stated, "The 2006-2007 school year presented a time of challenge and an element of uncertainty at Woodbridge Middle School. Boundary changes as result of the opening of a new middle school changed the 'look' of our school. We went from a majority white school serving middle to upper middle class families, to a school with a very diverse student population with almost 40% of the students classified as economically disadvantaged. ...[W]e would also like to be able to offer students outside of Woodbridge Middle School's boundaries the option of attending Same Gender Classes at Woodbridge Middle..." Superintendent's Staff Open Agenda Item (Dec. 10, 2008) (Proposal for Same Gender Classroom Structure Two-Year Extension 2009-2011 School Year).
- 165 See Calhoun, "Introducing," *supra* note 34; Opening Statement from the Principal (Undated memorandum); Summary (unattributed, undated memorandum on brain difference between boys and girls); see *supra* notes 33-38 and accompanying text.
- 166 Throughout the documents produced by Woodbridge, the word "staff" or the words "all staff" are used multiple times. It is clear from the documents that the term "staff" includes at least teachers in the single-sex program, but it is unclear whether "staff" also includes teachers in coeducational classes and/or also refers to administrators at the school.
- 167 Opening Statement from the Principal: Background of Same-Gender Proposal (Undated memorandum).
- 168 Letter from Woodbridge Middle School Leadership Team, Woodbridge Middle School Parent Advisory, to Prince William County Schools Superintendent Staff, The study of *Why Gender Matters*, (Dec. 15, 2006).

- 169 Bill McBride, Presentation: Girls Will be Girls and Boys will be Boys: Teaching to Gender Differences., (Undated).
- 170 *Id.* at 2.
- 171 *Id.* at 4 (citing Michael Gurian and Kathy Stevens, *With Boys and Girls in Mind*, 62 Educational Leadership (2004) at 21; Sax, *Why Gender Matters*, *supra* note 6).
- 172 *Id.*
- 173 *Id.*
- 174 *Id.*
- 175 Woodbridge Middle School, Proposal for Same-Gender Classroom Structure Two-Year Extension 2009–2011 Same Gender Classroom Structure Pilot Year 2007–08.
- 176 Superintendent’s Staff Open Agenda Item (Dec. 10, 2008) (Proposal for Same Gender Classroom Structure Two-Year Extension 2009–2011 School Year.
- 177 See Woodbridge Middle School, Same Sex Program, <http://woodbridgems.schools.pwcs.edu/modules/cms/pages.phtml?pageid=98980&sessionid=7fd39c822e0075872b342fbb6b7af274&sessionid=7fd39c822e0075872b342fbb6b7af274> (last accessed June 27, 2012).
- 178 Superintendent’s Staff Open Agenda Item (Dec. 10, 2008) (Proposal for Same Gender Classroom Structure Two-Year Extension 2009–2011 School Year.
- 179 Skyles Calhoun, et al., Presentation: Same Gender Program: the Educational Option for Parents (Undated) at 7.
- 180 *Id.* at 7.
- 181 *Id.* at at 8, 15.
- 182 Presentation by Abigail Norfleet James to Woodbridge Middle School Staff: Gendered Classroom Applications (Sept. 1, 2009).
- 183 *Id.*
- 184 *Id.*
- 185 *Id.*
- 186 Woodbridge Middle School, PowerPoint Presentation: Same Gender Classes (June 2011).
- 187 *Id.*
- 188 *Id.*
- 189 Woodbridge Middle School, Staff Poll: Interest in Teaching Same Gender Classes, 2007–2008.
- 190 See Woodbridge Middle School, Proposal for Same-Gender Classroom Structure Two-Year Extension 2009–2011 Same Gender Classroom Structure Pilot Year 2007–08.
- 191 See Opening Statement from the Principal: Background of Same-Gender Proposal (Undated memorandum) stating “...there was a genuine widespread concern as to how the boundary changes made for the opening of Potomac Middle School would impact Woodbridge Middle School. There was also a concern that, since Woodbridge Middle School did not have a specialty program, many of our higher achieving students were leaving Woodbridge Middle.”
- 192 Email from Georgia Porter, Former Principal, Enslow Middle Sch., to Ryan McKenzie, Principal, Enslow Middle Sch. (April 16, 2008).
- 193 Email from Ryan McKenzie, Principal, Enslow Middle Sch., to Lenora Richardson, Curriculum Supervisor, Cabell Cnty. Sch. (Sep. 29, 2011).
- 194 *Id.* (noting that they had discussed in their curriculum evaluation the shortcoming that new staff had not had professional development “for how to teach adolescent boys differently than adolescent girls”).
- 195 Clark Davis, *Cabell County Experiments with Single-Gender Classes*, WVPubcast.org, <http://www.wvpubcast.org/newsarticle.aspx?id=22716> (last visited May 9, 2012).
- 196 Carrie Cline, *Experimenting With Single-Sex Classrooms*, WSAZ, http://www.wsaz.com/home/headlines/Single_Sex_Classrooms_135058748.html (last visited May 14, 2012).
- 197 McKenzie, *supra* note 194 (noting that they had discussed in their curriculum evaluation the shortcoming that new staff had not had professional development “for how to teach adolescent boys differently than adolescent girls”).

- 198 See Jesse J. Logan, *Separate and Unequal?*, 34:6 Psychol. Today (2001); Debra Viadero, *Evidence on Single-Sex Schooling Is Mixed*, 21 Education Week 8 (2002) (presenting data suggesting that having higher numbers of boys in a classroom was associated with lower achievement for both girls and boys).
- 199 See Carol E. Thom, *A Comparison of the Effect of Single-Sex Versus Mixed-Sex Classes on Middle School Student Achievement* (2006) (Ed.D. Dissertation, Marshall University).
- 200 Jackie Ayres, *Gender-based classes begin today for Independence 6th-graders*, The Reg.-Herald, Aug. 26, 2009, <http://www.register-herald.com/local/x46855932/Gender-based-classes-begin-today-for-Independence-6th-graders/print>.
- 201 Jessica Karmasek, *Separating the Boys from the Girls*, Charleston Daily Mail, Nov. 7, 2006, available at http://www.redorbit.com/news/education/722938/separating_the_boys_from_the_girls/.
- 202 *Id.*
- 203 Van Devender Middle School, Presentation to the Wood County Board of Education (Undated, printed Mar. 9, 2010).
- 204 *Id.* This is an impermissible goal, according to the Supreme Court, which made clear in *United States v. Virginia*, 518 U.S. 515 (1996), that offering single-sex education could not itself serve as an adequate justification for a sex-based classification, as this confused the “means” with the “end,” and constituted a “notably circular” argument that distorted the applicable constitutional test. *Id.* at 545.
- 205 Board Presentation, *supra* note 204.
- 206 Email from Penny Tonelli, Assistant Principal, Van Devender Middle Sch., to Penny Tonelli (personal email account) (Mar. 3, 2010).
- 207 *Id.* (emphasis added). Notably, although some of the documents acknowledge differentiation in learning and development among boys and among girls, they uniformly fail to offer a concrete response to the question of how such students might fare in a “gender differentiated” program like Van Devender’s. For example, the same notes include the following—tellingly incomplete—entry:
Atypical child: We are not attempting to stereotype children. We know from research boys and girls are different. We know that the type of environment they need is different. They have different levels of hearing, vision, temperature and light requirements. Yes, there may be a few students who are not your typical boy or typical girl, however ///////////////
Id.
- 208 For example, the County produced a copy of Sax, “Six Degrees,” *supra* note 8, in which he asserts that:
For the single-sex format to lead to improvements in academic performance, teachers must understand the hard-wired differences in how girls and boys learn. In particular, teachers need to understand the importance of differences in how girls and boys hear, see, and respond to different learning styles, as well as [] differences in autonomic function...
Id. at 190, 195.
- 209 Email from Leonard Sax, Exec. Dir., NASSPE, to Penny Tonelli, Assistant Principal, Van Devender Middle Sch. (Mar. 5, 2009) (discussing how to successfully launch a single-sex program); Email from Leonard Sax, Exec. Dir., NASSPE, to Penny Tonelli, Assistant Principal, Van Devender Middle Sch. (June 16, 2009) (discussing plans for Sax to visit for a presentation Aug. 17-18).
- 210 See Van Devender Middle School, One Page Business Plan (Jan. 26, 2010); Cover sheet to ACLU records request # 5; Sax email, *supra* note 210.
- 211 Calhoun, “Introducing,” *supra* note 34; see *supra* notes 33-38 and accompanying text.
- 212 Vincent Anfar, Jr. and Steven B. Mertens, *Do Single-Sex Classes and Schools Make a Difference?* Middle Sch. J., 52 (2008); NASSPE, *Learning Style Differences* (Oct. 19, 2008) <http://www.singlesexschools.org/research-learning.htm> (printout of website from 2008); Sax, *Six Degrees*, *supra* note 8; David Chadwell, *Gender Differences in How Boys and Girls “See” the World* (Dec. 7, 2011) <http://www.chadwellconsulting.com/GD%20SEEING.htm> (printout of website from 2011); Leonard Sax, *From the Publisher*, 1 *Advances in Gender and Education* 2 (2009).
- 213 Anfar and Mertens, *supra* note 213, at 52, 56-57.
- 214 Letter from Stephen Taylor, Principal, Van Devender Middle Sch., to Parents of Future Van Devender Students (May 6, 2010). See also Press Release, Van Devender Middle School, Van Devender to Host Open House for Parents of Incoming Students (announcing parent forum, and stating that “[m]any significant studies show that boys and girls have different interests, mature differently and learn differently. . . By knowing this, we will be in position to deliver instruction that is interesting, relevant, and tailored to a specific gender. This allows students to become more engaged and motivated”).
- 215 See Business Plan, *supra* note 211.
- 216 See, e.g., Board Presentation, *supra* note 204; Van Devender Middle School, Presentation to the Education Alliance (Undated, printed Dec. 13, 2011).

- 217 See Business Plan, *supra* note 211; See Cover sheet to ACLU records request # 5.
- 218 Dewayne McClary, Single-Gender Advisory Board Member, S.C. Dep't of Educ., Presentation at the NASSPE National Conference (October 2009).
- 219 Van Devender Video, *supra* note 41 (transcription by ACLU). See *supra* notes 41-43 and accompanying text.
- 220 Tonelli e-mail, *supra* note 207 (containing note for answer to FAQ on parental option: "We plan to fully educate parents on the gender based approach which should alleviate this problem. However, if a parent still does not want their child in the class they must opt out. They can do this by taking school choice").
- 221 Barron Area School District Board of Education Regular Meeting Minutes 1 (Mar. 21, 2011).
- 222 Flyer, Riverview Middle School, *Benefits of Gender Based Instruction* (Undated).
- 223 Letter from John Gevens, Riverview Middle Sch. Principal, to Parents of Incoming Fifth Graders, (May 2012).
- 224 Flyer, *supra* note 224.
- 225 *Id.*
- 226 John Gevens, *supra* note 225.
- 227 Flyer, *supra* note 224.
- 228 *Id.*
- 229 *Id.*
- 230 John Gevens, *supra* note 225.
- 231 Flyer, *supra* note 224.
- 232 *Id.*
- 233 *Id.*
- 234 *Id.*
- 235 See Sandra Stotsky, *The Promise of Single-Sex Classrooms*, 5 *School Adm'r* 32, 32-35 (2012).
- 236 John Gevens, *supra* note 225.
- 237 Letter from Goldy "Trey" Brown, Principal of Robinson Elementary Sch., to Third Grade Parents (Feb. 20, 2007); Letter to Robinson Elementary Third Grade Parents (unattributed) (Mar. 10, 2008) [hereinafter "Mar. 10, 2008 Letter"].
- 238 Email from Sam Carter, Principal of Robinson Elementary Sch., to Chris Wesling (Jan. 28, 2010); Letter from Sam Carter, Principal of Robinson Elementary Sch., to Second Grade Parents (Mar. 23, 2009)
- 239 Same Gender Classrooms, (Robinson Elementary Sch., Beloit, WI) May 12, 2009 (Informational newsletter).
- 240 *Id.*
- 241 Mar. 10, 2008 Letter, *supra* note 239.
- 242 *Id.*; see *supra* notes 33-38 and accompanying text.
- 243 *Id.*
- 244 *Id.*
- 245 *Id.*
- 246 Staff Development for Educators, Interesting Factoids: Tips to Keep in Mind When Teaching Boys (2006).
- 247 *Id.*
- 248 Boys and Literacy: What Can We Do? (unattributed, undated article).
- 249 *Id.*
- 250 Same Gender Classrooms, *supra* note 241.
- 251 *Id.*
- 252 Sax, *Why Gender Matters*, *supra* note 6.
- 253 Mar. 10, 2008 Letter, *supra* note 239.
- 254 Gender Differences that Make a Difference, *supra* note 47.

255 *Id.*

256 *Id.*

257 *Id.*

258 *Id.*

259 *Id.*

260 *Id.*

261 *Id.*

262 *Id.*

263 *Id.*

264 Mar. 10, 2008 Letter, *supra* note 239.

265 Letter from Sam Carter to second grade parents, *supra* note 240 (stating that “[t]hird grade will have an ‘opt out’ classroom that will be heterogeneous. 4th and 5th grade classes will be one of each gender”).

266 See Email from Sam Carter to Chris Wesling, *supra* note 240.

267 Student Survey, (institution unknown) (date unknown).

268 See Diane Halpern and Lise Eliot, *The Single Sex Trick: The flaws in a new survey that praises girls-only and boys-only classes*, Slate.com (Dec. 15, 2010), http://www.slate.com/articles/double_x/doublex/2010/12/the_singlesex_trick.html (critiquing similar survey conducted in South Carolina).

269 Steve Salerno, Marshall Middle Sch., School District of Janesville Proposal–2006-07 (Jan. 3, 2007) [Proposal regarding single-sex education pilot] [hereinafter Salerno Proposal]; Janesville Board of Education Meeting Minutes at 4 (Jan. 23, 2007) [hereinafter “Jan. 23, 2007 Minutes”]; Janesville Board of Education Meeting Minutes at 4 (May 27, 2008) [hereinafter “May 27, 2008 Minutes”].

270 Jan. 23, 2007 Minutes, *supra* note 274, at 4; *see also* Janesville Board of Education Meeting Minutes at 1-2 (May 26, 2009) [hereinafter “May 26, 2009 Minutes”].

271 May 26, 2009 Minutes, *supra* note 272, at 1-2.

272 May 26, 2009 Minutes, *supra* note 272, at 1-2; Janesville Board of Education Meeting Minutes at 5 (May 24, 2011).

273 May 26, 2009 Minutes, *supra* note 272, at 1-2.

274 See Frank Shultz, *Committee Recommends Ending Pilot Program for Same-Sex Classrooms*, GazetteXtra.com (May 30, 2012), <http://gazettextra.com/news/2012/may/30/committee-recommends-ending-pilot-program-same-sex/>.

275 *Id.*

276 *Id.*

277 Salerno Proposal, *supra* note 271, at 1.

278 *Id.*

279 May 26, 2009 Minutes, *supra* note 272, at 1-2; *See also* Salerno Proposal, *supra* note 271, at 2; PowerPoint Presentation: Single Gender Education 2 Year Pilot Completion, The Academy at Marshall Middle School at 3 (May 26, 2009) [unattributed] [hereinafter “2 Year Pilot”].

280 Jan. 23, 2007 Minutes, *supra* note 274, at 4.

281 PowerPoint Presentation: Single Sex Education Pilot, Marshall Middle School at 6 (Jan. 23, 2007) [unattributed].

282 Salerno Proposal, *supra* note 271, at 1.

283 Jan. 23, 2007 Minutes, *supra* note 274, at 4. The documents also contain a hodge-podge of alternative purposes purportedly served by the program, including breaking down “gender stereotypes,” creating “more ‘well rounded’ people,” and offering “just another alternative [that] may be a better educational fit for some students” and that may reduce distraction and increase confidence for students. *See* Salerno Proposal, *supra* note 271; Jan. 23, 2007 Minutes, *supra* note 274, at 4. Even assuming that these were all genuine justifications that qualify as an “exceedingly persuasive justification,” none of these was supported by any evidence that the single-sex classes were substantially related to their achievement.

284 May 26, 2009 Minutes, *supra* note 272, at 1-2; *see also* Salerno, Proposal, *supra* note 271, at 2; 2 Year Pilot, *supra* note 281, at 3.

285 Salerno Proposal, *supra* note 271, at 2.
286 Single Sex Education Pilot Marshall Middle School, *supra* note 283, at 7.
287 Salerno Proposal, *supra* note 271, at 2.
288 Single Sex Education Pilot Marshall Middle School, *supra* note 283, at 4-5.
289 *Id.* at 4.
290 *Id.* at 5.
291 Jan. 23, 2007 Minutes, *supra* note 274, at 4.
292 *Id.*
293 Salerno Proposal, *supra* note 271, at 2.
294 Single Sex Education Pilot Marshall Middle School, *supra* note 283, at 8; Jan. 23, 2007 Minutes, *supra* note 274, at 4.
295 2 Year Pilot, *supra* note 281, at 3-4; Single Sex Education Pilot Marshall Middle School, *supra* note 283, at 8.
296 Salerno Proposal, *supra* note 271, at 1.
297 Jan. 23, 2007 Minutes, *supra* note 274, at 4 (“In 2004 changes in legislation allowed single sex education in schools if an alternative is offered.”)
298 Salerno Proposal, *supra* note 271, at 1.
299 May 27, 2008 Minutes, *supra* note 271, at 4.
300 2 Year Pilot, *supra* note 281, at 8.
301 *Id.* at 7.
302 Shultz, *Janesville School Board Votes to End Single-Gender Classes*, *supra* note 277.
303 May 27, 2008 Minutes, *supra* note 271, at 4.
304 See Halpern and Eliot, *supra* note 270.
305 May 27, 2008 Minutes, *supra* note 271, at 4; 2 Year Pilot, *supra* note 281, at 28-35.
306 Halpern and Eliot, *supra* note 270.
307 Email from Jeffrey Fleig, Associate Principal of Central High Sch., to Troy Harcey, Assoc. Superintendent of Instruction, Sch. District of La Crosse (Nov. 13, 2011).
308 Letter from Jeffrey Fleig, Assoc. Principal of Central High Sch., to Parent of an Incoming 9th Grade Student (May 4, 2009).
309 Letter to Parents of Incoming Ninth Grade Students (unattributed, undated).
310 *Id.*; see also Gender Specific Course Offerings for 9th Grade Students (undated parent form).
311 Letter to Parents of Incoming Ninth Grade Students, *supra* note 311; Gender Specific Course Offerings, *supra* note 312.