

# Youth Risk Behaviors

## Duval County Middle School Students 2009

### Sexual Behaviors

#### Key Findings

- 77% of middle school students have never had sexual intercourse
- Approximately 31% of middle school males have had sexual intercourse
- Almost 16% of females have ever had sexual intercourse
- 66.8% of students in the county used a condom the last time they had sex
- Approximately 8% of students have had 3 or more sexual partners
- Approximately 8% had sex for the first time before 11 years of age

#### Youth Risk Behaviors

The Youth Risk Behavior Survey (YRBS) is a self-administered, school-based, confidential, and anonymous survey that was conducted in the Duval County Public Schools during the spring of 2009. This is part of a national effort by the Centers for Disease Control and Prevention (CDC) to obtain information pertaining to youth social behaviors. These behaviors include but are not limited to: violence, safety, sex, nutrition and weight management, suicide, and more. In the 27 middle schools in Duval County, 3,138 students participated.

#### Why Monitor Sexual Behavior?

Sexual behavior is perhaps the most complicated of behaviors to monitor, especially in a young population, where secrecy of risky sexual behaviors are socially encouraged. According to *Healthy People 2010*, "Perhaps the most important social factor contributing to the spread of STDs in the United States and the factor that most significantly separates the United States from those industrialized countries with low rates of STDs is the stigma associated with STDs and the general discom-

fort of people in the United States with discussing intimate aspects of life, especially those related to sex.<sup>1</sup> Sex and sexuality pervade many aspects of the nation's culture, and people in the United States are fascinated with sexual matters. Paradoxically, while sexuality is considered a normal aspect of human functioning, people in the United States nevertheless are secretive and private about their sexual behavior. Talking openly and comfortably about sex and

*(continued on page 2)*

<i>This Issue</i>	
Why Sexual Behavior?	1
Why Monitor Youth Behaviors?	2
Duval County Health Zone Description and Report Card	3
Sexual Behavior	5
Data Collection Methods	7

### Why Monitor Sexual Behavior?

(continued from page 1)

sexuality is difficult even in the most intimate relationships.”<sup>1</sup> If this is the case for mature, experienced adults, how much more difficult is it for youth? While the YRBS looks at the actual physical behaviors associated with risky sexual behavior, the confounding effect of the psychosocial factor must not be discarded. On this concept, *Healthy People 2010* suggests that, “A new sexual openness needs to become the norm to ensure that all sexual relationships are consensual, non-exploitive, and honest and to protect against disease and unintended pregnancy. This openness would allow parents to talk frankly and comfortably with their children, and teachers and counselors with their students, about responsible behavior and avoiding risks (for example, abstaining from intercourse, delaying initiation of intercourse, reducing the number of sex partners, and increasing the use of effective barrier contraception).”<sup>1</sup>

### Why Monitor Youth Behaviors?

Monitoring risky behaviors within the middle school population is critical for school and public health officials to understand the cause and effect of these behaviors and how they may or may not continue into adulthood. Health behavior patterns are often established in childhood and adolescence, leading to a lifestyle that contributes to many of the chronic diseases that plague our society today, including obesity, diabetes and heart disease. This transition into adolescence also prompts a rise in risky behaviors, which frequently leads to increases in motor vehicle accidents, violence, unprotected sexual activity, and drug and alcohol use.<sup>2</sup> As part of the National Initiative to Improve Adolescent Health by the Year 2010, the CDC and the Health Resources and Services Administration (HRSA) have identified six critical health behaviors for adolescents including alcohol and drug use, injury and violence

(including suicide), tobacco use, nutrition, physical activity, and risky sexual behaviors.<sup>3</sup> These measurable indicators are used to assess the status and progress of each of these health behaviors. It is these behaviors that the YRBS is designed to examine in the youth population. By implementing this type of self-reporting surveillance, one can, with a significant measure of reliability, monitor the behavior of the youth and readily identify those groups that may or may not be at risk. This allows for the development of interventions and programs that directly target those groups that may be at most risk.

Adolescents are influenced by various levels and types of interpersonal relationships, which in turn, contribute to an adolescent’s health and well-being.<sup>2</sup> Because of this complex system of adolescent influences, developing comprehensive approaches and interventions to promote adolescent health is often difficult. In addition, adolescent health is influenced by a wide array of socio-economic factors, such as education and poverty, which require more primary intervention techniques that can lead to societal and environmental changes, frequently resulting in policy change. Addressing these factors is challenging, costly and time consuming, and requires many levels of decision-making. In order to address adolescent health issues, surveillance of adolescent health indicators is necessary for planning, program implementation, evaluation, and policy change.



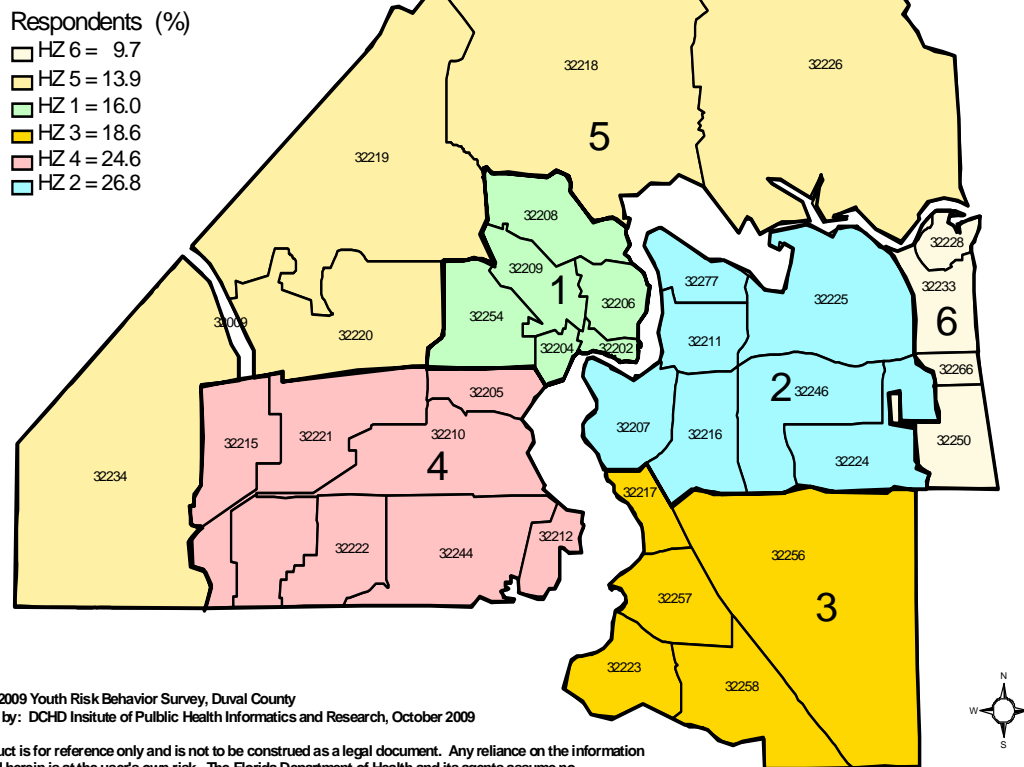
These measurable indicators are used to assess the status and progress of

## Duval County Middle School Report Card by Duval County and Health Zone

The data report card provides an overall comparison between Duval County and health zones for youth risk behaviors. Florida and U.S. data are not available for this report for state and national comparisons. Duval County is located on the northeast coast of Florida. The county is divided into six health zones made up of zip codes. These zones are based on Duval County Public Schools, Jacksonville Sheriff's Office, and Community Planning Action Council's existing geographic boundaries. Health zones, made of mutually exclusive zip codes, were created to increase the statistical reliability of zip code data for more targeted program planning, practical surveillance of health indicators, and to ensure confidentiality of data. Figure 1 shows the distribution of all student respondents, according to where they reside, from the Duval County YRBS by health zone.

Figure 1

### Distribution of Respondents from 2009 Duval County YRBS



Source: 2009 Youth Risk Behavior Survey, Duval County  
 Prepared by: DCHD Institute of Public Health Informatics and Research, October 2009

This product is for reference only and is not to be construed as a legal document. Any reliance on the information contained herein is at the user's own risk. The Florida Department of Health and its agents assume no responsibility for any use of the information contained herein or any loss resulting therefrom.

## Youth Risk Behaviors

### Duval County Middle School Report Card by Health Zone

YRBS data was compared across Duval County health zones for behavioral risk factors. There was one statistically significant behavior across health zones, although some other differences are notable. More middle school students who reside in Health Zone 1 have engaged in sexual intercourse than students in the county and Health Zones 2, 3, 4, and 5. All of the differences were statistically significant. Health Zone 1 also had a higher percentage than Health Zone 6, yet the difference was not significant (see Figure 4). Health Zone 1 had the highest percentage of students who had sex for the first time before 11 years of age. The percentage reported in Health Zone 1 is almost twice that of Health Zones 2 and 3. However, the difference is not statistically different from the county or other health zones. For middle schools students who have had 3 or more sexual partners, Health Zone 3 had the lowest percentage of all health zones (5.2%), although the difference between Health Zone 3 and the other health zones is not statistically significant. None of the zones differ statistically from the county either. Although Health Zone 1 had the highest sexual intercourse behavior reported, of those students who engaged in intercourse in Health Zone 1, 75.8% reported using a condom the last time they did so. This was the highest of all the zones which ranged from 53.4% for Health Zone 3 up to 75.8% for Health Zone 1. Students from Health Zones 2 and 5 reported similar percentages, around 64%, which were both lower than the overall county percentage of 66.8% (see Figure 5).

Risk Factors	Health Zone 1 2009	Health Zone 2 2009	Health Zone 3 2009	Health Zone 4 2009	Health Zone 5 2009	Health Zone 6 2009	Duval County Students 2009
	95% (CI's)	95% (CI's)	95% (CI's)	95% (CI's)	95% (CI's)	95% (CI's)	95% (CI's)
<b><i>Sexual Behavior</i></b>							
<b>Ever had sex</b>	35.5% <sup>1,2</sup> (30.2 - 41.1)	19.1% (15.0 - 23.9)	17.1% (12.6 - 22.7)	19.9% (16.1 - 24.3)	20.8% (15.2 - 27.8)	21.9% (13.7 - 33.0)	23.3% (21.1 - 25.7)
<b>Had sex for the first time before age 11 years</b>	12.2% (8.6 - 17.0)	6.5% (4.7 - 9.0)	6.3% (3.9 - 9.8)	7.0% (5.0 - 9.7)	7.7% (4.4 - 13.2)	9.6% (4.0 - 21.3)	8.2% (7.0 - 9.6)
<b>Of those who had sex, used condom last sex</b>	75.8% (66.2 - 83.3)	63.9% (55.4 - 71.6)	53.4% (38.6 - 67.6)	70.4% (61.3 - 78.2)	63.6% (51.8 - 74.0)	57.7% (34.7 - 77.8)	66.8% (62.4 - 70.9)
<b>Had 3 + sex partners</b>	8.9% (5.9 - 13.3)	6.4% (4.5 - 8.9)	5.2% (3.2 - 8.2)	7.7% (5.6 - 10.5)	5.6% (3.0 - 10.3)	6.5% (3.1 - 13.3)	7.9% (6.6 - 9.3)

Confidence Intervals (CIs) of 95% are used to provide statistical markers to gauge real trends verses differences that are more likely to reflect insignificant variation of data from year to year.

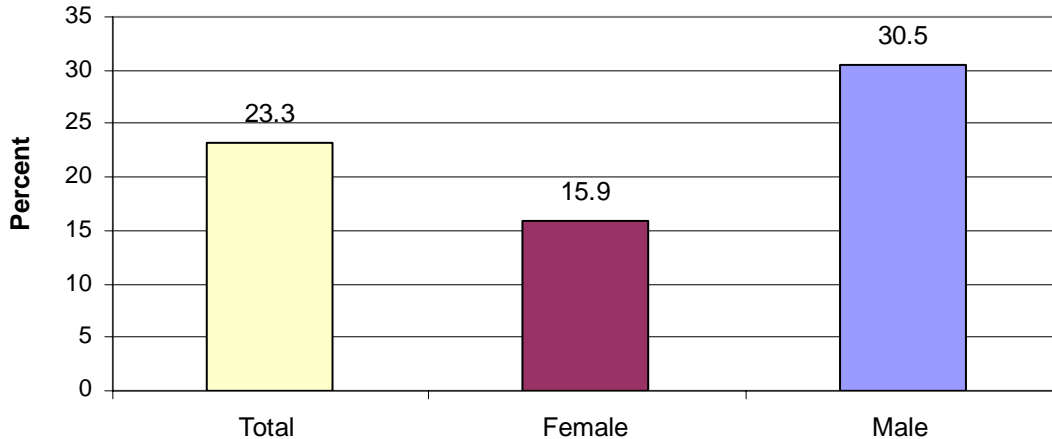
<sup>1</sup>Health Zone statistically different from Duval County; <sup>2</sup>Health Zone statistically different from Health Zone 2, 3, 4, and 5

## Sexual Behavior

More than 23% of middle school students have engaged in sexual intercourse (see Figure 2). There was a large statistically significant difference seen between males and females with 30.5% (95%CI=27.3,34.0) of males reporting the behavior versus 15.9% (95%CI=13.8,18.4) of females. Over eight percent of students engaged in sexual intercourse before the age of 11. Nearly 13% (95%CI=10.9,15.4) of males reported the behavior compared to 3.5% (95%CI=2.7,4.6) of females.

Figure 2

**Percentage of Students Who Ever Had Sex**



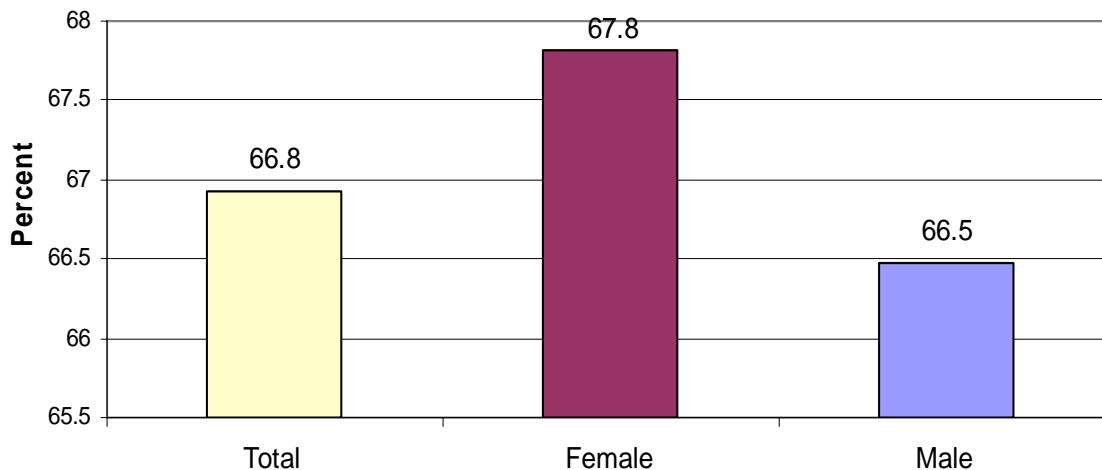
*Over 30% of middle school males have engaged in sexual intercourse at some time in the past*

Source: Youth Risk Behavior Survey, Duval County, 2009  
Data statistically different between gender

Out of those who had sex, 66.8% used a condom during their last sexual encounter with slightly more females using a condom than males. The difference, however, was not statistically significant.

Figure 3

**Percentage of Students Who Used a Condom During Last Sexual Episode Out of Those Who Have Had Sex**



*Nearly 67% of students who engaged in sexual behavior used a condom during the most recent episode*

Source: Youth Risk Behavior Survey, Duval County, 2009

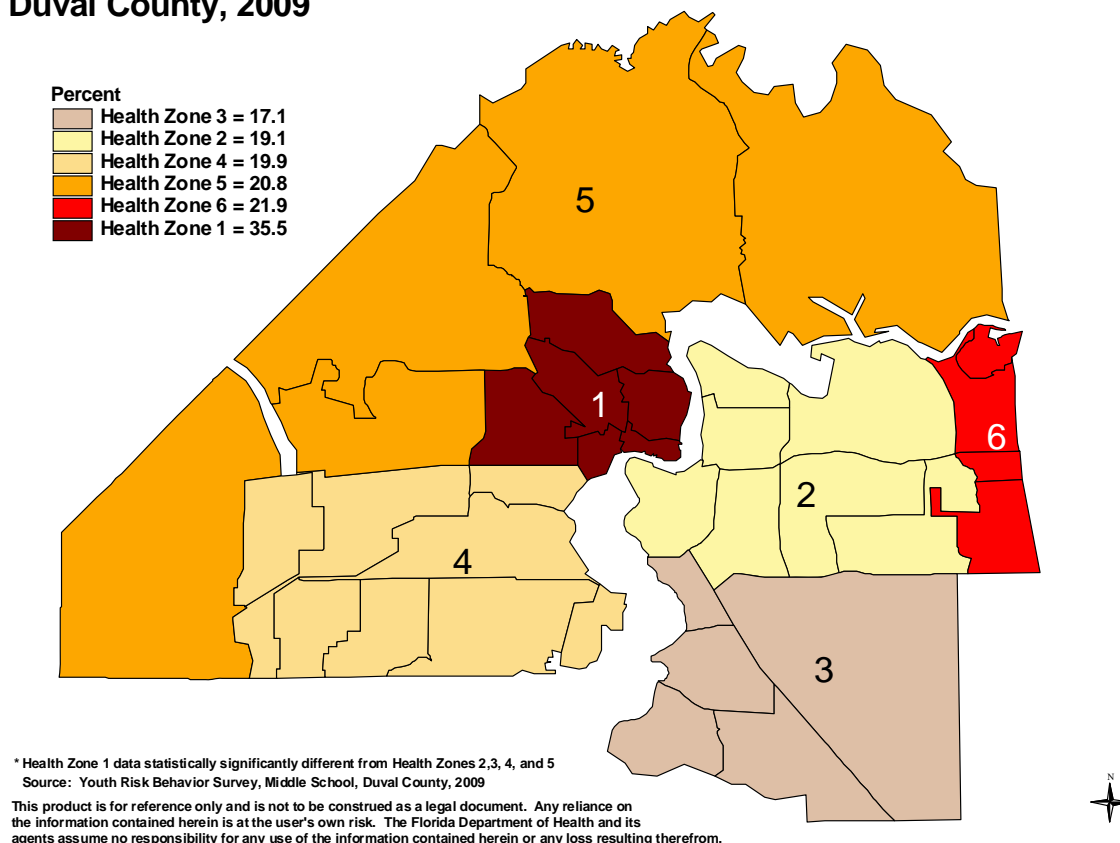
# Youth Risk Behaviors

## Sexual Behavior

Reported sexual behavior differed geographically across the county. As noted earlier, more students in Health Zone 1 (35.5%) reported engaging in sexual intercourse than in any other health zone. In fact, over twice the percentage of people engaged in sex in Health Zone 1 than in Health Zone 3 (17.1%). Health Zones 2, 4, 5, and 6 had similar percentages reported (see Figure 4).

Figure 4

**Percentage of Middle School Students Who Have Had Sex by Health Zone, Duval County, 2009**



## Summary

After reviewing the county and health zone data related to sexual behavior, several concerns surface about Duval County's middle school students. Nearly a quarter of them are engaging in sexual intercourse, although not all of them are using condoms for protection from STDs and pregnancy. Some became sexually active prior to the age of 11 and/or have had at least 3 sexual partners. The information must be considered when creating programs and policies regarding sexual activity and the young people of Duval County.

## Data Collection Methods

### Description of the YRBS

The Youth Risk Behavior Survey (YRBS) is a self-administered, school-based, confidential, and anonymous survey that was conducted in the Duval County Public Schools in the spring of 2009. In Florida, weighted YRBS data has been collected at the state level every two years since 2001. Five Florida counties (Orange, Hillsborough, Palm Beach, Broward, and Miami-Dade) are funded by the CDC to collect county-level data. In the spring of 2009, Duval County, for the first time, received federal funding by the CDC to administer a specific county-level YRBS even though it has been included in the state-level data collection in the past. The YRBS is part of a national effort by the CDC to obtain information pertaining to social behaviors. These behaviors include, but are not limited to: violence, safety, sex, nutrition and weight management, suicide, and more. In the 27 public middle schools in Duval county, there were 3,138 students that participated. Initial county-level analysis was performed by Westat, a CDC contractor. Sub-county analysis was conducted through a joint effort by the Duval County Public Schools and the Duval County Health Department. A stratified analysis according to the six defined health zones was conducted to identify the risk for these behaviors at the sub-county level. This sub-county analysis allows Duval County to be unique in its ability to identify geographically, within its community, those groups at risk.

### Data Collection Methods

Nationally, schools are selected with probability proportional to the size of student enrollment in grades 6 - 8. Then, required classes are randomly selected to participate within selected schools with equal probability. The questionnaire is administered to all students in sampled classes in sampled schools. However, in Duval County, all schools were included in the study with the classes randomly selected, which resulted in the students being randomly selected. This ensures the reliability and validity of the sample to be a randomly generated one, which is important to the statistical process behind the administration of surveys and their analysis. Within selected classes, students are eligible to participate voluntarily, anonymously, and confidentially. Parental notification was provided. Survey administrators were Duval County Public Schools classroom instructors and were trained as to the appropriate method of administering and collecting the surveys. These precautions were necessary in order to ensure the complete privacy of the students.

From the CDC, "Weighted results means that the survey got an overall response rate of at least 60%. Weighted results are representative of all students in grades 6 - 8 attending public schools in each jurisdiction. With weighted data, it is possible to say, for example, 'X% of students in state Y never or rarely wore a seat belt when riding in a car driven by someone else.'" This means that a weight has been associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of non-response. The objective of the weighting process is to develop sample weights that can be employed during analysis to generate results that accurately represent the entire student population in the county. The weighted results can be used to make important inferences concerning the priority health-risk behaviors of all regular public school students in grades 6-8.

### References

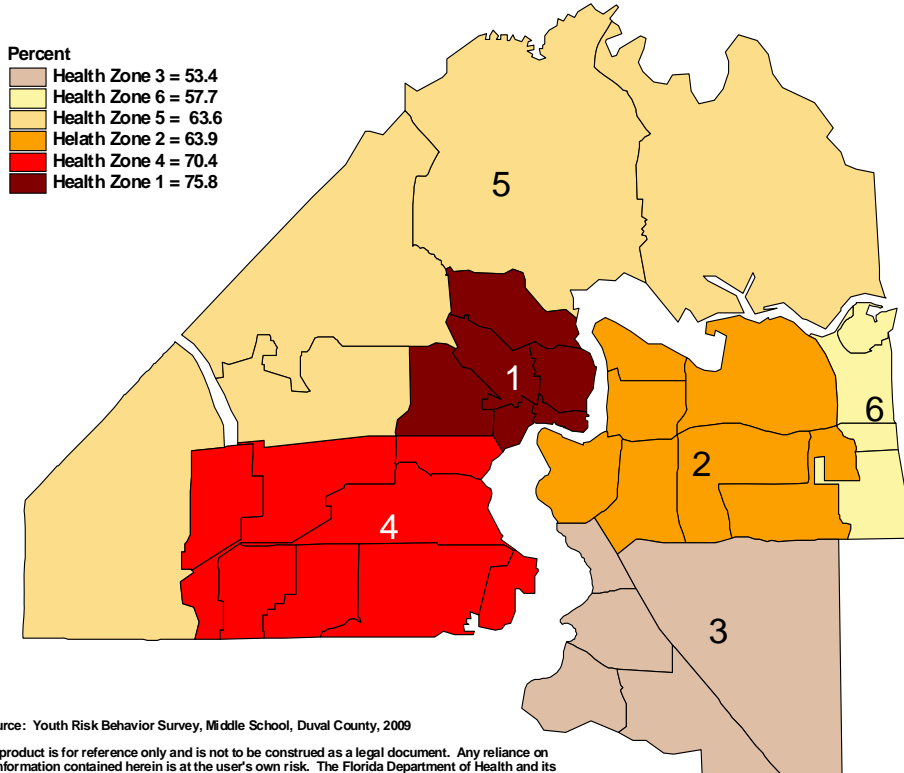
<sup>1</sup>Healthy People 2010, Sexually Transmitted Diseases, <http://www.healthypeople.gov/document/HTML/Volume2/25STDs.htm>

<sup>2</sup><http://www.cdc.gov/healthyyouth/adolescenthealth/index.htm>

<sup>3</sup>Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Improving the

Figure 5

**Percentage of Middle School Students Who Used a Condom Last Time They Had Sex by Health Zone, Duval County, 2009**



For more information, contact:  
[www.duvalschools.org/yrbs](http://www.duvalschools.org/yrbs)