



Rhode Island Data Brief

Youth at Risk: 2011 Rhode Island High School Academic Performance & Health Risks

Purpose: Over 8% of Rhode Island (RI) public high school students received mostly D&F grades in 2011, and there is interest in knowing if they were at greater threat from health risk behaviors than their high performing peers (A&B grades). Consequently, this brief examines differences in health risks for A&B and D&F high school students, and whether those risks have improved or worsened over time (2007 to 2011). Twenty four measures are evaluated, comprising eight areas of vulnerability (i.e., violence, mental health, tobacco, alcohol, drugs, sex, injury, and weight). The findings are intended to inform policy-makers and stimulate further research.

Data source: All data are from the Youth Risk Behavior Survey,¹ a biennial survey of public high school students nationwide on the major causes of disease and injury morbidity and mortality.

'Academic performance' defined: In the survey, students were asked to report their grades in the past year. Their responses were then parsed into two categories: 1) students with 'A&B' grades, and 2) those with 'D&F' grades.

Using the data: The differences in the performance of A&B and D&F students may be statistically 'significant' or not. 'Significance' here, was determined at the 95% confidence level.² Lastly, the 24 risk measures are all negative indicators, so lower/declining values are preferred.

Findings: D&F students comprised 8.3% of the statewide high school student body in 2011, compared with 7.6% in 2007; however, the increase was not large enough to be statistically significant. Students with poor grades had significantly higher health risks on 20 of 24 measures in 2011, than students receiving As and Bs. Compared to their high-performing peers, these students were more likely to be male (62% vs. 46%), minority (45% vs. 26%), and lesbian, gay, or bisexual (15% vs. 6%). Low-performing students were also more likely to be younger (grades 9 and 10; 68% vs. 49%), and to have a physical disability (22% vs. 11%) or emotional disability (28% vs. 12%).

Violence was much more prevalent among students with low grades. The rate of physical fighting was more than three times higher for D&F students in 2011 (51% vs. 17%). The dating violence rate among D&F students declined from 30% in 2007 to 15% in 2011, but was more than twice as high as the rate among A&B students in 2011 (15% vs. 6%). The forced intercourse rate for D&F students fell from 22% (2007) to 10% in 2011, but it was not statistically different from the rate for A&B students that year.

Mental health risks were greater for students with low grades. D&F students were almost twice as likely to feel 'depressed' in 2011 (41% vs. 21%) and almost three times more likely to have attempted suicide (17% vs. 6%).

Tobacco use was much more common among low-performing students. The current smoking rate was more than four times higher for this population in 2011 (29% vs. 7%), and the use of any tobacco product was almost three times higher (35% vs. 13%).

Alcohol use was higher among D&F students. The current drinking rate was higher among low-performing students in 2011 (52% vs. 29%), and binge drinking was more than twice as common (31% vs. 15%).

Drug use was more widespread among students with low grades. Over twice as many D&F students used marijuana in 2011 (47% vs. 21%), three times as many tried cocaine (13% vs. 4%), and the rate of abuse of prescription drugs was more than two times higher (28% vs. 11%).

Sexual activity was more prevalent among D&F students. The current sexual activity rate was almost two times higher for this group in 2011 (49% vs. 25%), and the rate for multiple partners was almost three times higher (20% vs. 7%).

Injury risks were greater for students with low grades. Over five times as many D&F students did not wear seat belts in 2011 (30% vs. 6%), and they were also more likely to not wear bike helmets (93% vs. 71%). The drinking and driving rate improved from 23% in 2007 to 11% in 2011, but it was significantly higher for D&F students in 2011 (11% vs. 5%).

Weight-related risks from inadequate physical activity were higher for low-performing students. In 2011, significantly more D&F students lacked sufficient exercise compared to their A&B peers (70% vs. 49%).

Rhode Island's D&F students are clearly in crisis, both academically and health-wise as the data show that students who struggle academically are much more likely to engage in risky behaviors. Some limited improvement in their health risks occurred since 2007, but considerable disparities remain and need to be addressed.

In 2011, Rhode Island's low-performing high school students (D&F grades) had significantly higher health risks on 20 of 24 measures than students with high grades (As&Bs). From 2007-2011, four health risk measures for D&F students improved significantly (dating violence, rape victimization, early drinking, and drinking & driving), and none worsened.

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¹ The RI-YRBS is jointly sponsored by the Department of Health, the Department of Elementary and Secondary Education, and the Department of Behavioral Health, Developmental Disabilities, and Hospitals.

² As the RI-YRBS is a sample survey, if the 95% Confidence Intervals of two values do not overlap, one may conclude (with 95% certainty) that there was a 'real' (statistically 'significant') difference between the two values (i.e., the difference was not likely due to sampling bias).

Figure 1: RI 2011 High School Health Risks by Academic Performance
*statistically significant differences

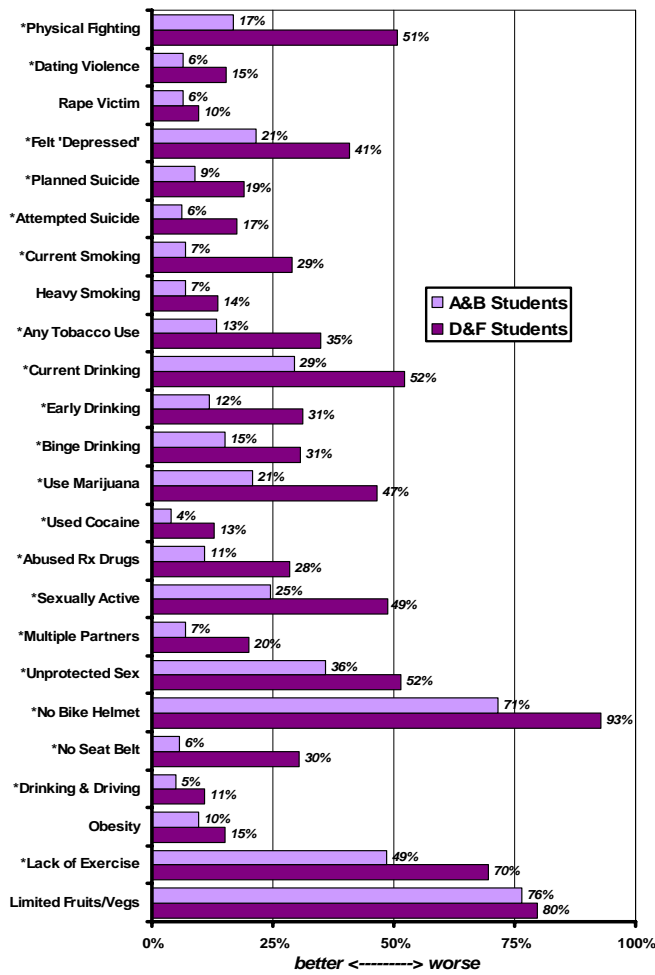


Figure 2: RI 2007 & 2011 H.S. Health Risks for D&F Students
*statistically significant changes

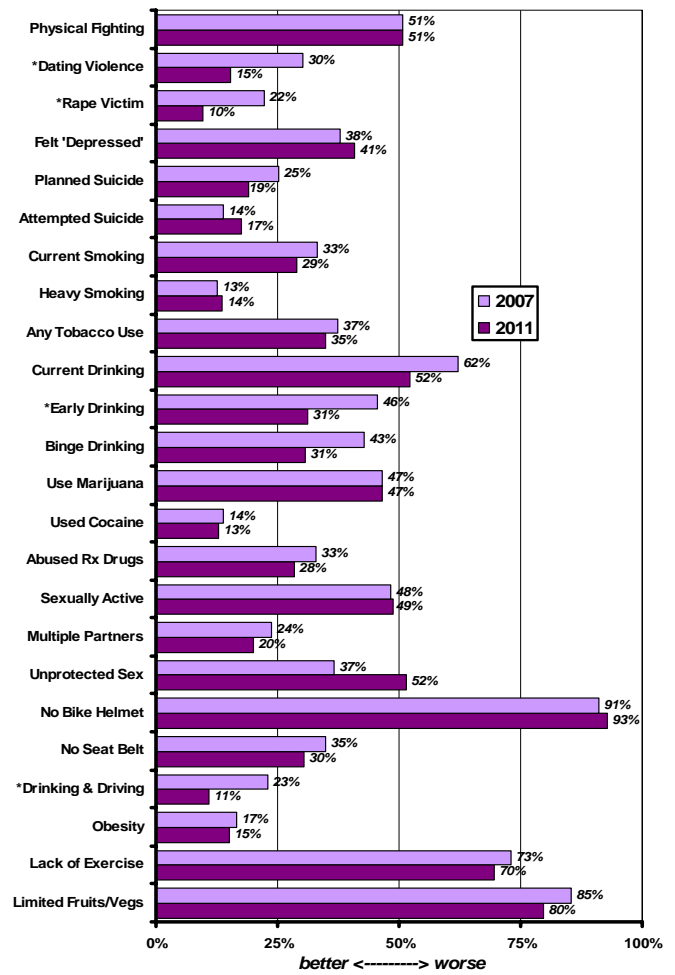


Table 1: Rhode Island High School Health Risk Data by Academic Performance

Measure	Description	2011		2009			2007						
		A&B Students	D&F Students	A&B Students 95% CIs	D&F Students 95% CIs	D&F Students	D&F Students 95% CIs	D&F Students	D&F Students 95% CIs				
VIOLENCE	Physical Fighting	16.8%	50.7%	15.2%	18.4%	44.6%	56.8%	48.5%	41.7%	55.4%	50.8%	42.0%	59.5%
	Dating Violence	6.4%	15.4%	5.3%	7.4%	11.2%	19.5%	17.0%	11.8%	22.3%	30.1%	21.9%	38.3%
	Rape Victim	6.4%	9.6%	5.3%	7.4%	6.3%	12.9%	13.0%	8.5%	17.5%	22.3%	14.8%	29.8%
MENTAL	Felt 'Depressed'	21.5%	40.8%	19.7%	23.2%	34.9%	46.7%	40.2%	33.6%	46.7%	37.9%	29.5%	46.2%
	Planned Suicide	8.8%	19.0%	7.7%	10.0%	14.3%	23.7%	20.2%	14.5%	25.9%	25.2%	17.7%	32.8%
	Attempted Suicide	6.3%	17.5%	5.2%	7.4%	12.7%	22.2%	16.5%	11.4%	21.7%	13.8%	7.8%	19.8%
TOBACCO	Current Smoking	6.8%	29.1%	5.7%	7.9%	23.4%	34.8%	28.9%	22.3%	35.5%	33.1%	24.8%	41.4%
	Heavy Smoking	6.9%	13.7%	2.8%	11.0%	5.6%	21.8%	9.0%	1.8%	16.2%	12.6%	3.2%	21.9%
	Any Tobacco Use	13.5%	34.9%	11.9%	15.0%	28.8%	41.0%	33.2%	26.4%	40.1%	37.3%	28.4%	46.2%
ALCOHOL	Current Drinking	29.5%	52.2%	27.5%	31.5%	45.8%	58.5%	52.8%	45.8%	59.9%	62.1%	53.4%	70.7%
	Early Drinking	11.8%	31.1%	10.4%	13.1%	25.6%	36.6%	33.7%	27.2%	40.1%	45.5%	36.9%	54.2%
	Binge Drinking	15.0%	30.6%	13.4%	16.6%	25.0%	36.3%	37.3%	30.5%	44.1%	42.9%	34.2%	51.6%
DRUGS	Use Marijuana	20.9%	46.5%	19.1%	22.7%	40.4%	52.6%	52.5%	45.6%	59.4%	46.6%	37.9%	55.2%
	Used Cocaine	3.9%	12.9%	3.1%	4.7%	8.9%	16.9%	10.2%	5.7%	14.6%	13.8%	8.0%	19.7%
	Abused Rx Drugs	10.8%	28.4%	9.5%	12.2%	22.9%	33.9%	24.5%	18.6%	30.4%	32.9%	24.8%	40.9%
SEX	Sexually Active	24.6%	48.8%	22.7%	26.6%	42.2%	55.5%	54.2%	47.0%	61.4%	48.2%	38.9%	57.6%
	Multiple Partners	7.0%	19.9%	5.8%	8.1%	14.7%	25.1%	24.8%	18.6%	31.0%	23.8%	15.6%	31.9%
	Unprotected Sex	36.0%	51.6%	31.5%	40.5%	42.1%	61.0%	43.8%	33.4%	54.1%	36.7%	23.9%	49.6%
INJURY	No Bike Helmet	71.5%	92.9%	69.2%	73.7%	89.2%	96.5%	96.1%	92.6%	99.6%	91.1%	85.2%	97.0%
	No Seat Belt	5.7%	30.3%	4.8%	6.7%	24.8%	35.9%	33.6%	27.0%	40.2%	34.9%	26.8%	42.9%
	Drinking & Driving	5.0%	11.0%	4.0%	5.9%	7.4%	14.5%	17.1%	11.7%	22.5%	23.0%	15.5%	30.6%
WEIGHT	Obesity	9.7%	15.1%	8.4%	10.9%	10.8%	19.4%	18.4%	13.1%	23.7%	16.7%	10.4%	22.9%
	Lack of Exercise	48.6%	69.6%	46.5%	50.7%	64.1%	75.2%	67.6%	61.0%	74.2%	73.0%	65.5%	80.5%
	Limited Fruits/Veg.	76.5%	79.6%	74.7%	78.3%	74.8%	84.4%	80.0%	74.4%	85.7%	85.5%	79.2%	91.7%