Cornell University
ILR School

Cornell University ILR School
DigitalCommons@ILR

CAHRS Working Paper Series

Center for Advanced Human Resource Studies (CAHRS)

3-1-2003

An Economic Theory of Nerd and Slacker Harassment and it's Role in Enforcing Social Norms in Schools

John H. Bishop
Cornell University, jhb5@cornell.edu

Follow this and additional works at: http://digitalcommons.ilr.cornell.edu/cahrswp

This Article is brought to you for free and open access by the Center for Advanced Human Resource Studies (CAHRS) at DigitalCommons@ILR. It has been accepted for inclusion in CAHRS Working Paper Series by an authorized administrator of DigitalCommons@ILR. For more information, please contact jdd10@cornell.edu.

An Economic Theory of Nerd and Slacker Harassment and it's Role in Enforcing Social Norms in Schools

Keywords
school, student, peer, victim, learning, activities, norm, group, friend, member, harassment, nerd

Comments

Suggested Citation

Bishop, J. H. (2004). *An economic theory of nerd and slacker harassment and it's role in enforcing social norms in schools* (CAHRS Working Paper #03-06). Ithaca, NY: Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies.
http://digitalcommons.ilr.cornell.edu/cahrswp/29

This article is available at DigitalCommons@ILR: http://digitalcommons.ilr.cornell.edu/cahrswp/29

CAHRS

Center for Advanced Human Resource Studies

WORKING PAPER SERIES

CAHRS / Cornell University
187 Ives Hall
Ithaca, NY 14853-3901 USA
Tel. 607 255-9358
www.ilr.cornell.edu/CAHRS/

An Economic Theory of Nerd and Slacker Harassment and it's Role in Enforcing Social Norms in Schools

John H. Bishop

Working Paper 03 – 06

CORNELL ilr School of Industrial and Labor Relations

An Economic Theory of Nerd and Slacker Harassment and it's Role in Enforcing Social Norms in Schools

John H. Bishop [1]
Cornell University
Department of Human Resource Studies
Bishop Associates
327 The Parkway
Ithaca, NY 14850
Jhb5@cornell.edu

With assistance of
Matthew Bishop
Michael Bishop
Lara Gelbwasser
Shanna Green
Erica Peterson
Anna Rubinsztaj
Antonio Ruiz-Quintanilla
Shannon Smith
Jarrett Taubman
Andrew Zuckerman

March, 2003

http://www.ilr.cornell.edu/cahrs

This paper has not undergone formal review or approval of the faculty of the ILR School. It is intended to make results of Center research available to others interested in preliminary form to encourage discussion and suggestions.

Abstract

Peers can monitor learning and some study activities, can sanction at low cost and care about hanging can out and extracurricular, ‘i’th student’s learning of influenced by Learning of classmates]

An Economic Theory of Nerd and Slacker Harassment and it's Role in Enforcing Social Norms in Schools

> *"For some reason they just hear about me and say 'Hey let's bug the kid or let's chase him.' I don't know, that always seems to amaze me—like kids that I've never seen before know my name, know about half the things about me; some of them I don't know."* [Morton in 7th grade of Cronkite JHS] Morton was correct that he was known (by reputation) throughout the school. Once agreement existed that an individual was a Mel, peers who knew him only by reputation felt free to harass. [2]

> *"A lot of people make fun of him* [William, one of the other outcasts at Cronkite JHS]. *He is really nice to me. But sometimes I'm mean to him. One time, it was really so nice of him…he took my punishment for me. Sitting in the seat all period. I didn't even thank him. I was spitting on him* [figuratively]*. I don't know why. I felt like it. He was really upset*. (Becky)*"*[3]

Why do most middle schools have at least one group of students who are treated with remarkable cruelty by peers? Why is bullying so frequently done in front of spectators? Why do bystanders seldom intervene on the side of the victim? Why do bystanders frequently join in?[a] According to one student, "Students bully so they can be part of a group and they do it so the group will respect them more."[4] There is considerable empirical support for this student's characterization of motives. Developmental psychologists studying verbal bullying have found that bullies are often among the most popular students in a school and that bullying behavior is positively associated with within group status.[5] Why do peers tolerate even reward classmates for being mean? What is the role of harassment and bullying in adolescent peer cultures? How does the phenomenon influence student behavior and learning?

This paper attempts to answer these questions by developing and testing a theory of student culture and norms, how norms arise, how they are enforced and the effects of norms/culture on the academic climate of a school and the engagement and study effort of students. Economists have traditionally not included social norms and culture in formal models of

---

[a] I want to thank Matthew Bishop, Michael Bishop, Lara Gelbwasser, Shanna Green, Erica Peterson, Anna Rubinsztaj, Antonio Ruiz-Quintanilla, Shannon Smith, Jarrett Taubman and Andrew Zuckerman for their valuable assistance on this research project. This paper benefited immeasurably from the contributions of these student research assistants. They conducted the interviews, wrote ethnographies of the schools they studied, managed the survey data collection, helped with the statistical analysis and debated how to interpret the data. Most of my collaborators, however, have not yet seen this new paper so I accept responsibility for any misinterpretations of the data.

[a] Videotapes of playground bullying incidents in Canada found that peers were involved in 84 percent of incidents. Peers were coded as respectful of the bully 74 percent of the time and respectful of the victim in 23 percent of the incidents. W. M. Craig and D. J. Pepler, "Observations of bullying and victimization in the school yard," Canadian Journal of School Psychology, 1997, 13, 41-59.

behavior. "Culture…presents definitional problems, is difficult to quantify, and operates in a highly complex context with…[many] other factors."[6]

Nevertheless, empirical studies of peer effects, social capital and social interactions have generated persuasive evidence that individuals are influenced by the norms and behavior of coworkers and close associates. Developmental psychologists have been studying peer effects on engagement in school for decades, sometimes using experimental designs.[7] Education production function studies consistently find that the socio-economic status of the other students in a school influence learning gains of individuals. Until recently it was not clear, however, whether this finding reflected a causal relationship or was instead a selection effect caused by parents with strong preferences for education choosing to move to high SES communities. Recent studies based on data free from such bias show that causal peer effects do exist. Randomly assigned college roommates have been shown to influence each other's academic performance.[8] An elegant study by Carolyn Hoxby has shown that boys and girls learn more when girls account for a larger share of the students in a grade.[9] Angrist and Lang's study of Brookline schools found that increasing the number of Boston Metco students in a classroom did not affect the learning of white students but had significant negative effects on learning of Black 3rd graders who were Brookline residents.[10] Hanushek, Kain and Rivkin's analysis of Texas data found that high ability Black students learned more in years in which their grade had a higher proportion of non-black students.[11] Using experimental data from Project Star, Boozer and Cacciola have demonstrated that the students who were taught in small classes during their first years in school had positive spillover effects on their classmates in regular third and fourth grade classrooms once the experiment was completed.[12] Using panel evidence from administrative data, Andrew Zau and Jullian Betts, found that "changes in the average achievement at the school have independent large effects on student learning." These effects were substantially larger than the effects of class size and teacher credentials, education and experience.[13]

These studies, I think, demonstrate that peer effects are real--when one group of students has been successful at academic learning during time period 't', classmates learn more during 't'

and subsequent time periods. But how do we use this knowledge to improve schools? For policy implications we need to look inside the black box of gender, race and SES effects and try to understand how peer spillover effects are generated. The SES, skin color and gender of classmates probably do not directly influence learning. Rather the observed spillover effects are probably generated by the norms and behavior of classmates. Some students help their classmates learn, others disrupt their learning. Some honor academic engagement, others make fun of kids who are friendly with teachers. We present evidence below that the norms and behavior patterns of young women are more supportive of academic learning than the norms and behavior patterns of young men. This we argue is one of the reasons why girls are more successful in school and are more likely to graduate from high school and attend college. When their enrollment share rises, the academic environment of the classroom becomes more supportive of learning and everyone learns more. This is probably the reason for Hoxby's gender composition findings. But, redistributing girls across classrooms is not likely to be an effective way of generating more positive peer effects. We need to discover how to induce boys to adopt norms towards learning that are more similar to the norms of their female classmates. We also need to discover how to increase the proportion of girls who have pro learning norms and behavior patterns. In order to do this we need to improve our understanding of how groups of students develop their norms and characteristic behavior patterns, how these norms are enforced and then how they are transmitted to the next generation of students.

The goal must be not just to specify a theoretical model of how or why norms influence student behavior, but also to explain where the particular norms that prevail came from, how they are enforced and how they are taught to new generations of students. The norms and culture I speak of are developed by students, for students and are enforced by students, all without the assistance of a legitimizing political process, a governmental structure or access to funds to pay policemen. Moreover, the norms promoted by the peer culture are sometimes in opposition to the rules and norms that principals, teachers and parents are trying to promulgate. In the face of these difficulties, it is truly remarkable that middle school and high school students

so frequently establish strong independent sub-cultures that make highly prescriptive demands on group members—demands that many members of the group wish they didn't have to conform to.[a] How do they do it?

The first problem that peers face when they try to establish a culture with prescriptive norms is that norm enforcement (like law enforcement) is a public good. Fehr and Gachter (2000) found that allowing participants in a four-person public goods experiment to punish anonymous players who contributed little to the public investment, resulted in free riders being heavily punished and a big increase in contributions to the public investment. Many players devoted some of their money to punishing norm violators even though punishing others was costly for them.[14] If many volunteer to punish "norm violators" when the costs are high, what will happen when the costs are very low or zero? That is the situation that prevails in middle school and high school.

The second problem they face is agreeing on the norms. One way consensus is achieved is by sorting into cliques and crowds that have a homogeneous outlook. Cliques are small groups of friends who hang out together a great deal and are personally close. Crowds, by contrast, are larger, "reputation-based collectives of similarly stereotyped individuals who may or may not spend much time together…. Crowd affiliation denotes the primary attitudes and activities with which one is associated by peers…. Whereas clique norms are developed within the group, crowd norms are imposed from outside the group and reflect the stereotypic image that peers have of crowd members."[15]

Similarity of normative outlook among members of a crowd is due in part to the influence that the members have on each other and pressures to conform. But, it also arises from selective entry and selective exit. Students who are uncomfortable with the norms and behavior

[a] Brown, Eicher and Petrie asked 1297 students why joining a crowd was or was not important to them. Thirty-six percent of students who were members of a crowd and 41 percent of those in the Jock/Popular crowd cited conformity pressures as reasons for not joining a crowd. Only 4 percent cited conformity as an attractive feature of crowds. The attractions of joining a crowd were friendships, activities and support (eg. 'builds self-confidence' and a sense of 'being liked'). On the other hand, 33 percent of all members and 42 percent of Jock/Populars complained about their crowd restricting their friendships or not liking some of the people in their crowd. Wanting to improve one's reputation was cited as a positive reason by 17 percent of all members and 14 percent of Jock/Populars. Bradford Brown, Sue Ann Eicher and Sandra Petrie, "The importance of peer group ('crowd') affiliation in adolescence," Journal of Adolescence, 1986, Vol 9, 73-96.

of a particular clique or crowd need not join it or leave it when they discover the problem. Consequently, high school students must be viewed as choosing the normative environment of their clique and their crowd.[a] Each crowd tends to value highly the abilities, resources, and personality traits that the crowd's leadership and core members have in common.

Method: To start with I reviewed the quantitative studies of student peer cultures and bullying that have appeared in educational, psychological and sociological journals. In addition, I read every ethnography of adolescent peer cultures I could find.[16] I also interviewed students myself and recruited and trained six student interviewers to do the same. The qualitative data and quotations come from taped interviews of 10th graders in eight secondary schools serving predominantly white upper-middle class suburbs in New York State conducted during the winter of 1998.[17] We felt we would get a more accurate picture of peer cultures if we matched interviewers and respondents on gender. The time available for interviewing was limited so, we were able to study both genders in only one school, the culture of male students in another school and the culture of female students in six schools. A short description of the high schools and middle schools included in the qualitative data collection can be found in the Appendix.

The next stage of the theory development process was devising a four-page questionnaire on the attitudes and behavior of secondary school students and recruiting schools to administer it to their students. Over the course of the last four years nearly one hundred thousand middle school and high school students in almost 400 schools have completed one of three versions of our student survey.[18] The multivariate analysis employs data from surveys completed by 95,000 students attending nearly 400 schools. The Educational Excellence Alliance's Student Culture survey used is provided in Appendix B.

The descriptions and hypotheses developed from the qualitative research and from looking at responses to the EEA student culture survey have been used to develop a simple theory of why crowds and schools have the norms that they have, how students choose their crowd, how school-

[a] Students will not always join the crowd whose norms match their own norms most closely. The prestige of the crowd, having friends already in a crowd and barriers to entry into high prestige crowds are often more important than a perfect match of your norms to the crowd's norms.

wide and crowd norms are enforced by harassment and other pressures and how these norms influence the school's academic climate, student engagement and study effort. Since our interviews and surveys were conducted in public schools serving racially integrated or predominantly white middle class neighborhoods, the theory will require revision before it can be applied to schools in poverty neighborhoods and schools where nearly all students are Black or Hispanic. Section 2 of the paper presents the theory and provides justifications for key modeling choices by reference to our interviews and the ethnographic literature. Section 3 and 4 offer some tests of a few of the theory's predictions in data from the Educational Excellence Alliance's survey of Student Culture. I begin by summarizing the main propositions of the theory and illustrating them with stories and quotations taken from the literature and our interviews.

I. A Sketch of the Theory of Nerd and Slacker Harassment with Illustrations

Students entering middle school will spend up to 2000 hours annually for seven years in the company of their school peers. Not surprisingly they are strongly motivated to fit in and to gain a respected role in the school's social system.[19] The norms of middle school peer cultures are different from the norms that prevail in elementary school. Sixth graders learn their new school's norms by noting and trying to copy the traits and behaviors of students who appear to be respected by older students and avoiding the traits and behaviors of students who are frequently harassed. One of the first norms they are taught is 'don't ask adults for protection.'

> "I ask them why they tease and they start giggling. My mother has already tried to call their parents… I don't tell her to call anybody because the next day they call me a narc. The way we figured it out is that narc probably means like a tattletale or a squealer (Les)."[20]

Verbal harassment and bullying occurs outside the earshot of adults. It is now so pervasive and hard to define that most school administrators lack the ability to protect individual kids from it.[a]

[a] Harassment is hard to define because insulting words are a pervasive part of peer interactions even among close friends where there is no intention to humiliate. Students told us that conversations with close friends are often sprinkled with insulting words. Insults intended to hurt and humiliate are different, they said, coming from kids outside their group or said in a different tone of voice or picking on a real (not fanciful) feature of the victim's persona. This makes it difficult though not impossible to define and enforce a prohibition against peer harassment.

In many schools they are also taught: "No alliances with teachers." Ethnographer, Don Mertens, asked William and Scott, two of the outcasts at Cronkite Junior High why they and their friend Les were being singled out for harassment:

> *"One thing, he* [Les] *is more like a teacher's pet. He always hangs around teachers. That I don't like. I don't know how to say this but it looks like you look at teachers as your friends. They* [one's peers] *got to think that a teacher is not your friend* (Scott in 8th grade).[21]
>
> William knew what it took to be popular. As he saw it, one needs to: *"pay no attention and talk [in class]. Don't listen to the teacher and tell jokes all day….Yeah, really not pay attention and goof around."* Despite having recognized some of the elements that made a person cool…William still preferred to be the sort of person he valued…. *"Les Renault is my friend….Nobody ever really liked us because we like to stay straight. There's Mr. Muscular and Mr. Cool. We don't like doing that—we're acting how we want to act.…Why can't anyone act themselves in school? I'm a goodie-goodie. I want to be straight—I want to do good things in my life. I don't want to be bad.* (William in the second semester of 7th grade)."[22]

At the beginning of 8th grade, however, William decided that he didn't *"want to be the little kid pushed around any more"* and tried to change. *"I've been taking a lot of people's punishments, to get them out of trouble. Or say they flunk a test. I grade it 100%. It's how everybody does it. Everybody fits in better. I don't tattle like I used to."* [23] Les had a different view of William's transformation:

> *"This year he* [William] *does not want to be teased. So what he is doing is challenging kids who are younger than him to fight. I think it is super stupid because he didn't like it when everybody was bugging him, so why is he going around bugging everyone else. I'm just strictly in the middle. I'm not going to be any bully or any wimp.* (Les in 8th grade*)"*[24]

Les and Scott's efforts to escape Mel status were fruitless. William's strategy worked. *"Now everybody likes me… I would say I'm in the top 10. I mean everything has changed. I know it's the best I've ever felt in my life* (William at the end of 8th grade).*"*

The anti-teacher norms that prevailed at Cronkite Junior High School are not unusual. At Boynton Middle School, a school where children of college faculty account for a large share of the students, boys (but not girls) were not supposed to *"suck up"* to teachers**.** One student told us, you avoid being perceived as a *"suck up"* by:

--*"avoiding eye contact with teachers",*
--*"not handing in homework early for extra credit",*
--*"not raising one's hand in class too frequently, and"*
--*"talking or passing notes to friends during class*" [this demonstrates you value relationships with friends more than one's rep with the teacher],

Nerd, Dork and Geek are denigrated identities at just about every school, but there are many other groups of kids who share their outcast status and who account for most of students who are regularly harassed and ridiculed. Sometimes it's rural kids ('Hicks"), special education students ("Dummies"), gay kids, short kids, fat kids, or unattractive kids.[a] Since my focus is on how norms regarding academic engagement and effort are established, the theory does not directly address the motivations behind the harassment of most of these other students.

So far we have described the school wide norms as inherited from previous generations of students. But the transmission mechanism is the popular or leading crowds. The students we talked to viewed the popular/leading crowds as the source of school wide norms. Indeed the members of the popular crowds were often seen as role models and exemplars of "cool." Many peers respected them, so their opinions about who and what was "cool" and who and what was "uncool" were quite influential. When asked what makes the popular crowd popular, Jackie pointed out, *"Everyone wants to have a good time, no matter who your friends are. Sports are fun….Battle of the Classes, Sports Night, parties, hanging out…They're all good time. The actual individuals are good people too; they're interesting, they have different talents and abilities and attractable themselves.* [Their popularity is] *not just based on what they do."*[25]

Since the primary signal of a person's popularity is who one hangs out with, reputation as a popular person depends on "*being allowed to hang out with them* [one of the popular crowds]**."** As one of our respondents said, "*If you're friends with popular people, you're considered more popular* (Boynton Middle School)." Inviting someone from outside the crowd to a party or

[a] Two examples follow. Paula spent a great deal of time playing sports (15-19 hours a week) and hanging out (10-14 hours a week). Nevertheless: *"I'm picked on all the time because of my size. I guess it's supposed to be a joke, although sometimes I care…Just because I'm smaller, they know they can make fun of me. I'm not really upset—just angry."* When asked where she sits at lunch, she laughed nervously and admitted, *"I mostly eat my lunch in the bathroom. There are groups in the cafeteria and I don't really feel comfortable there."* [Student at Newport Junction High School, interviewed by Lara Gelbwasser.] Donna Eder's ethnography of Woodview High School provides a second example. "Students also ridiculed female isolates by making fun of their perceived unattractiveness…. A common way to do this was for boys to convey their romantic interest in a particular isolate and make fun if she took it seriously….[Sharon explained to Stephanie Parker, the interviewer] now they really make fun of her [Theresa, a student who had fallen for the ruse] because she'll start to cry.'" Donna Eder, School Talk, (New Brunswick, Rutgers Univ. Press, 1995), p. 50.

including them in lunchtime conversation may be small matter to a popular student, but it sometimes has an important positive demonstration effect on that kid's reputation. This works for groups as well as individuals. If your clique interacts with a group that is seen as popular, your clique's reputation will improve.

Around most popular crowds there are "wannabes" actively trying to join the crowd and potential "wannabes" who would try if they thought they had a reasonable chance of success. Members of the crowd, control, and limit entry into the crowd. "Posers" are individuals or groups who copy the dress and behavior of a high status crowd, without being a part of that crowd. By adopting the norms and behaviors of a popular crowd as their own, "Posers" assist in the transmission of the norms and values of the popular crowd to the wider school community.

In addition, certain core members of the leading crowds and 'wannabes' trying to be accepted into these crowds are often the enforcers of the norms. Many students expressed resentment and hostility towards the popular crowds and the 'vigilantes' who enforced the school wide norms. When asked if there is a cool crowd at Newport Junction, Kate remarked *"Everyone looks up to* [the populars]*, but I don't really know why. There's nothing really different about them except that they hang out with upperclassmen and play sports."* Judie described them as *"a big group of blond snots."* Eliza, a member of the 'populars,' boasted about their snobby reputation, proudly confiding, *"When* [all my friends] *are together, everybody hates us."*[26]

Over at Harbor Edge, Susan responded to the question about a 'cool' crowd by saying, *"They seem to think they are. They're usually into sports and because they have so many friends, they just think of themselves as popular…. They are so obnoxious; they just make fun of others for who they are and I don't think that's right."* Even though she ate lunch with them, Robyn described Harbor Edge's popular crowd as *"the loud ones. Some of them make fun of the dorks and the nerds, and then the rest of them hang out with the meaner people. They're known to act like this; no one will make fun of them, because [they] are afraid they'll be totally abused*."[27] Robyn is suggesting that the leading crowds maintain the hegemony of their norms and their group's status, in part, by admitting into their ranks a group of 'vigilante' enforcers who intimidate the rest

of the students. Note further the resignation of these voices regarding the power of the 'populars.' There are resentments but no budding revolution or even the energy to propose and publicly defend other norms.

Another example of norm enforcement by intimidation and violence is the treatment that Freaks get at some high schools. At Longview High School student told us: *"We were all hanging out…and then a couple of freaks walked by and everybody started throwing things at them, like rocks and stuff…They just kept on walking. They just try to ignore it.*" Another incident was described third hand, *"They threw them down Suicide Stairs—the big stairs over by the music wing. I think the freaks avoided that area just so that they wouldn't get thrown down the stairs. They would yell 'Oh it's a freak,' and start beating them up.*"[28]

Why would popular crowds go to the trouble of ruling by violence, intimidation and teasing designed to destroy self-esteem? One would think that norms of fairness and civility would trump the desire to signal that certain behaviors or forms of dress are unacceptable in the eyes of peers. One possibility is that the stakes are perceived to be high because the popularity and power of the leading crowds is on the line. Secondary school students divide themselves into crowds, each with its own norms and characteristic behaviors. Every crowd would like students outside their group to respect its norms and to honor the crowd's characteristic behaviors. But there can only be one set of school wide norms defining what traits and behaviors are respected and what is disrespected and which crowds are respected the most. What is unique about the "cool" or popular crowd(s) is that they have succeeded in defining school-wide norms in such a way that it reinforces the popularity and authority of the members of their crowd(s). Many less secure students, afraid of asserting their individuality, will evaluate themselves by what the secure, confident students consider "cool." The new arrivals in middle school are particularly susceptible to these pressures and that is when the struggle over school wide norms for that cohort of

students is joined and a winner is declared.[a] The crowds that get their preferred norms accepted as the school wide norms become the leading or popular crowds.

The problem with this explanation is that in most schools the hierarchy of crowd prestige has been stable for decades. While the Freaks publicly scorn the norms of the leading crowds, they are not mounting a serious bid for normative hegemony. Neither are the Nerds. William pleaded, "*Why can't anyone act themselves in school?"* Why couldn't the Mel's behavior be tolerated? Why did so many students join the posse punishing them? Don Mertens' answer was "…in order to set themselves apart from the categorical identity [the Mels represented]."[29] In other words, they joined the posse to signal their support for (what they believed to be) school wide norms because they were afraid that otherwise they might be the posse's next victims. The bullying of the Mels and Freaks not only deters others from joining their ranks, it involves a large share of the student body in the job of punishing the violators and affirming the norm. As a deterrence mechanism, harassment and bullying in middle school is certainly efficient. No lawyers, judges, juries, policemen or jailers are required. Students needn't be persuaded that punishment is likely if they violate the norm. They see some classmates being humiliated daily and they desperately want to avoid that fate. That fear is sufficient to change even deeply held norms and behavioral patterns. Efficient yes, but it is not optimal. Many members of the posse have no independent knowledge of the outcast's supposed crimes. When they joined the posse, some members may not even have known that the behaviors the victims are charged with were 'criminal.' Posse members act independently so they are unaware of how much punishment has already been meted out. Consequently, there is only a weak tendency for the punishment to be proportional to the supposed 'crime.' The bullies are not even motivated by a desire for justice. Their motivation is self-protection and currying favor with the powerful. As so frequently happens

[a] Uncertainty over who will be in the popular crowd and what its norms will be is greatest in the first year of middle school. That may be why there is a strong positive association between bullying (verbal harassment of other students) and popularity in the first year of middle school but not in 7th and 8th grade. Dorothy Espelage and Melissa Holt, "Bullying and Victimization during early adolescence: Peer influence and Psychosocial Correlates," forthcoming in Journal of Emotional Abuse, 2003, 1-32.

when vigilantes enforce norms without due process, the effort to deter and punish norm violations spirals out of control, resulting in many injustices.

II. Formal Presentation of the Theory of Nerd Harassment

Let us begin by describing how the student's utility maximization problem is structured. Students attend a school where the quality of instruction is S and they are required to take classes for T^O time. They must choose which of the school's crowds they will join and socialize with or to become a loner with no crowd. They must allocate their free time ($1-T^O$) during a school year between four activities: study activities that peers cannot monitor (T^J), study activities that peers can monitor (T^K), time spent with peers in crowd P either during extracurricular activities or just hanging out in person, on the phone or internet (T^P) and leisure activities that do not involve interactions with other students at one's high school such as reading, video games, television, web surfing and instant messaging with strangers or friends from other schools (T^V) subject to the time budget constraint.

1) School year time constraint = $1 = T^O + T^J + T^K + T^P + T^V$.

Learning depends on academic ability (A^A), the wealth and cultural capital of your family (C), the quality of instruction (S), instruction time (T^0), study time/activities that peers cannot monitor (T^P), study activities that peers can monitor (T^K), the ability of other students in the class (A*) and the learning of other students in the class (L*).

2) $L = \boldsymbol{L}(A^A, C, S, T^O, T^J, T^K, A^*, L^*)$. Where $L_J > 0$, $L_{JJ} < 0$, $L_K > 0$, $L_{KK} < 0$, $L_{JK} = 0$, $L_{JA} > 0$, $L_{KA} > 0$, $L_{JS} > 0$, $L_{KS} > 0$, $L_C > 0$, $L_{CC} < 0$, $L_{A^*} > 0$, $L_{A^*A^*} < 0$, $L_{L^*} > 0$, $L_{L^*L^*} < 0$,

Note that the learning multiplier result demonstrated by Boozer and Cacciola (2001) and by Zau and Betts (2002) has been incorporated into the model by including the ability (A*) and learning (L*) of other members of the class in the 'i' th students learning function.

In order to gain transparency, I assume that utility is separable in the various rewards for learning, consumption benefits of socializing and solitary leisure and peer pressure benefits and costs. Learning and skill development generate three kinds of rewards.

----Intrinsic Rewards, $I(L^i)$, that reflect the joy of learning for its own sake. These benefits do not depend on how well skill development is signaled to others.

----Direct Extrinsic Rewards, $\$(L^i)$, that depend directly on how much the individual learns during high school. It includes effects that operate through admission to preferred colleges, years of schooling completed and higher wages holding schooling constant. It also includes the benefits that parents derive from the economic success of their children and the honor and prestige given to those who are seen as high achievers. These benefits are larger if the skills developed in school are well signaled to universities, employers and parents.

----Rank Rewards = $R^j(L^i - L^*)$ that depend on the extent to which the student learns more than the rest of the students in his graduating class. This would include the effect of class rank and GPA relative to the mean of other students in the class (L^*) on the present discounted value of lifetime earnings and self-esteem derived from comparisons with other students at your school. The rank benefit will be larger when rank in class is well signaled to colleges and employers and when other signals of learning in high school (eg. L^i) are not available.

3) $UL = I(L^i) + \$(L^i) + R^j(L^i - L^*)$

4) $UP = U^P(M, T^P, A^m, A, C)$ = The intrinsic utility that student 'i' gets from being a member of crowd '*M*' and spending time (T^P) in extracurricular activities and socializing with schoolmates who are members of one's crowd. The intrinsic utility of an extra hour of free time spent with members of the crowd, $U^P_{Tp}(M, T^P, A^m, A, C)$, depends on which crowd it is, how well matched (A^m) the individual is with crowd M, the academic ability of the student (A) and the socio-economic background and cultural capital (C) of the student's family. Up to a point

spending more time with other members of the clique/crowd increases the marginal utility of time engaged in extracurricular activities and hanging out, but eventually diminishing returns sets in. $U^P_T > 0$, $U^P_{Am} > 0$, $U^P_{TAm} > 0$, $U^P_A > 0$, $U^P_{TA} > 0$, initially $U^P_{TT} \leq 0$,

5) $UV(A^V, T^V)$ = Utility from solitary leisure depends on time devoted (T^V) and A^V, the taste for solitary leisure and the availability of complementary inputs (PCs, books, video games and televisions). $U^V_T > 0$, $U^V_{TT} < 0$, $U^V_{TA} > 0$

Direct Effects of Peer Norms and Harassment on Learning

Students seek to avoid being harassed, insulted, teased and ostracized by peers. In many secondary schools a small number of students who exemplify denigrated traits and behaviors are targeted for harassment and ostracism. This sends a powerful signal to other students about how to behave. As one might imagine perceptions of what it takes to avoid harassment and to become popular have major effects on behavior.

The high status crowds typically signal and teach the school wide norms to younger students by setting an example (ie. modeling the behavior that others are to follow and avoiding activities that are proscribed) and sanctioning (or encouraging others to sanction) students who engage in proscribed behavior and/or who publicly oppose their normative hegemony. Most large schools have multiple high status crowd (eg. jocks, preps, populars) exemplifying somewhat different normative orientations and many popular individuals have friendships in more than one of the leading crowds. As a result, consensus norms have to honor all of the activities and signals (achievement in sports, popularity with the opposite sex, partying, drinking, grades good enough to get into college) that are characteristic of the school's high status crowds. Note that for many types of achievement—being athletic, funny, friendly, outgoing, popular and attractive—more will always be better in the eyes of peers. When, however, it comes to academics, peer pressure sets a norm—an optimal level of academic effort—that if adhered to prevents many students from achieving all they are capable of academically. In

schools where all three activities generate roughly equal prestige, the all-rounder who leads the team on Friday night, parties on Saturday night and gets good enough grades during the rest of the week often sits at the top of the prestige hierarchy. The bottom of the prestige hierarchy is populated by those not perceived as successful along any of the dimensions valued by consensus norms. They aren't good at sports, not attractive to the opposite sex, not 'social' and at one of the extremes on academic engagement and achievement. Peer norms also typically proscribe actions deemed 'anti social' such as squealing on peers, competing for grades and 'sucking up' to teachers and encourage 'pro social' helping behaviors such as letting friends copy homework and giving good grades when homework is exchanged and graded. The harassment that nerds and dorks experience, thus, has the social purpose of deterring others from engaging in proscribed nerdy behavior and spending so much time studying that it becomes more difficult for other students to get top grades.

School wide norms apply to all students and penalties for engaging in proscribed behavior need to be significant enough to deter almost everyone. However, the form of the sanction may vary across crowds. Students in high status crowds might be risking being pushed out of their crowd.[a] Norm violators from crowds of intermediate prestige risk being exiled to a low status crowd. Loners and students in low status crowds who violate norms risk ostracism and daily harassment [what happened to the Mels at Cronkite JHS].

Here we are concerned with how harassment and popularity depend on the allocation of time to learning activities that can be monitored by peers (T^K) and on success in learning (L^i). There are two sets of norms a student must deal with: school wide norms and the norms of the crowd he socializes with. Let's begin by modeling the enforcement of school wide norms--harassment (and it's inverse respectful interactions) by students who are outside one's own crowd. The more time one spends at school and on the school bus ($T^O + T^K$) or participating in

[a] A member of the popular crowd at a school studied by David Kinney said "At lunch we sit at our own table [but] if you go out to lunch with the wrong person, rumors would go around that you went to lunch with a geek!" David A. Kinney, "From Nerds to Normals: The Recovery of Identity among Adolescents from Middle School to High School," Sociology of Education, vol. 66 (January 1993), p. 27.

extra-curricular activities and socializing with schoolmates (T^P), the greater will be the impact of this generalized peer pressure on the student's total utility. Total time exposed to the peer culture of the school is $T^S = T^O + T^K + T^P$, so the costs of not conforming to school norms is the time spent in the presence of peers (T^S) times H^i, the hourly risk of harassment (minus hourly benefit of respectful interactions) by students outside one's crowd.

The hourly risk of harassment by students from outside one's crowd depends on the prestige and popularity of one's crowd (M), social and extra-curricular abilities (A^P), academic ability (A), the financial and cultural resources of one's family (C), the time one devotes to socializing and extra curricular activities (T^P), conformity with school wide norms regarding visible academic effort (T^K), academic achievement (L^i) and the school wide norm regarding academic achievement (L^N). We assume the hourly risk of harassment [minus respectful interactions] from students outside one's crowd is:

6) $H^i = H^p(\underline{M}, A^p, A, C, T^P, T^K, (L^i - L^N)) + v^i$

Where $H^p_{Ap} < 0$, $H^p_A < 0$, $H^p_C < 0$, $H^p_{Tp} < 0$, $H^p_{LL} > 0$.

Note that H^i enters negatively into the utility function and is multiplied by the time (T^S) that the student spends at school or hanging out with school friends. This function describes school wide norms—ie. what is honored, what is denigrated and the price one pays for deviating from school wide norms.

The crowd one hangs out with has its own norms. It rewards members who conform to its norms and sanctions those who violate its norms by harassment and other pressures. For some students these norms are more influential than school wide norms. The impact of these norms on utility will depend linearly on how much time one spends with other members of the crowd (T^P). The equation describing the hourly rate of harassment (minus respectful interactions) from other members of one's crowd is:

7) $H^m = H^m(M, A^m, A, C, T^P, T^K, (L^i - L^m)) + w^i$

Where $H^m_{Am} < 0$, $H^m_A < 0$, $H^m_C < 0$, $H^m_{Tk} > 0$, $H^m_{Tp} < 0$, $H^m_{LL} > 0$.

As with H^i, H^m enters the utility function negatively but it is multiplied by the time (T^P) that the student spends in extracurricular activities or socializing with crowd *M,* not the entire time the student spends at school. Academic ability (A) helps one be funny and succeed in other valued extra-curricular activities, so I assume that $H^p_A < 0$ and $H^m_A < 0$. Higher levels of family income facilitate attendance at summer sports camps and enable the purchase of sports equipment and fashionable clothes, so wealth and cultural capital also helps one succeed socially [$H^p_C < 0$ and $H^m_C < 0$].

All students want to avoid being harassed and to be popular with peers. Nevertheless, the weight they attach to avoiding harassment and being popular with students in their crowd (ϕ^m) and students outside their crowd (ϕ^i) varies across individuals. The student's objective function is:

$$8)\quad U^i = I(L^i) + \$(L^i) + R_j(L^i - L^*) + U^P(M, T^P, A^m, C) + U^V(A^V, T^V) - \phi^m T^P H^m - \phi^l [T^O + T^K + T^P] H^i$$

$$9)\quad U^i = I(L^i) + \$(L^i) + R_j(L^i - L^*) + U^P(M, T^P, A^m, C) + U^V(A^V, T^V) - \phi^m T^P \{H^m(M, A^m, A, C, T^P, T^K, (L^i - L^m))\} - \phi^i T^S \{H^p(\underline{M}, A^p, A, C, T^P, T^K, (L^i - L^N))\}$$

Since there are many different crowds, the student must first decide which crowd to join or whether to join no crowd. This decision is made by comparing the maximized value of (9), subject to the time budget constraint (1) for each of the crowds, and then selecting the crowd that maximizes utility. Substituting the learning function (2) into (9) and solving this problem generates the following first order conditions for learning time, for extracurricular and peer socializing time and for solitary leisure time:

$$11)\quad (I_L + \$_L + R_L)L_{Tj} - \phi^m T^P H^m_L L_{Tj} - \phi^i T^S H^p_L L_{Tj} = \lambda$$

$$12)\quad (I_L + \$_L + R_L)L_{Tk} - \phi^m T^P H^m_L L_{Tk} - \phi^i T^S H^p_L L_{Tk} - \phi^m T^P H^m_{Tk} - \phi^i (H^{i*} + T^S H^p_{Tk}) = \lambda$$

$$13)\quad U^P_{Tp}(M, T^P, A^m, A, C) - \phi^m (H^{m*} + T^P H^m_{Tp}) - \phi^i (H^{i*} + T^S H^p_{Tp}) = \lambda$$

14) $U^{V}_{T} = \lambda$

This set of first order conditions will look familiar to economists. Students will allocate their time between activities in a way that equalizes the marginal utility of the last hour devoted to each activity. The lagrangian multiplier, λ, is conventionally interpreted as the marginal utility of time.

Determinants of Socializing/Extra-curricular Time:

We begin by looking at (13), the first order condition for time devoted to socializing and extracurricular activities with crowd *M*. It says students will spend more time in extracurricular activities and socializing if the intrinsic utility they derive from it increases (first term), if they are not harassed and indeed treated respectfully by friends and other students when they stay after school (ie. H^{m*} and H^{i*} are negative) and if staying after school increases popularity. and lowers the risk of being harassed (ie. H^{m}_{Tp} and H^{p}_{Tp} are large negative numbers). Time spent socializing and in extra curricular activities will be higher for students who are well matched to the crowd (high on A^{m}) and who have demonstrated their commitment to the crowd by spending lots of time socializing. The average hourly risk of harassment falls and the hourly rate of respectful interactions rises as students spend more time socializing with classmates (H^{m}_{Tp} and H^{p}_{Tp} are both negative). Many cliques demand intense commitment from members. One student described her group's norms: "We don't want other people at our table more than a couple of times a week because we want to bond and bonding is endless,"[30] Eventually however, the marginal utility of time spent with one's clique/crowd peaks and then begins to decline as diminishing returns set in.

Sixty percent of the respondents in the EEA survey said that "not spending time to socialize and hangout tends to make you less popular." Peers encourage each other to hangout and reward those who do with popularity. The stronger this pressure the more time will be spent socializing or participating in extracurricular activities and the less time will be available for learning and solitary leisure activities. This is the first mechanism by which the desire for popularity discourages learning.

This phenomenon also works in reverse. Students who are unpopular are induced by the threat of harassment to avoid after school activities and go home as soon as school lets out. This gives them more time to study. They also often avoid the cafeteria during lunch, eating a sandwich in the bathroom or library while studying. Thus, the characteristic studiousness of the ostracized nerds is in part a consequence of their unpopularity. Their lack of popularity at school also helps explain why nerds and other ostracized kids often spend a lot of time at home watching TV, playing video games and role playing games with other ostracized kids and socializing with students from other schools.

Determinants of Study Time not observed by Schoolmates:

Examining equation 11 allows us to see how study time is determined. The first term on the left hand side of (11) says that the study time will go up if the intrinsic benefits of learning (I_L) rise, if the direct intrinsic rewards of learning ($\$_L$) go up or the rank rewards for learning (R_L) go up. Classmates preferences and behavior influence how much studying a student does in four different ways.

1) The attractions of alternative uses of time: Starting on the right hand side of the equation study effort is encouraged when the opportunity cost of time, λ, is low. This would occur when the student does not enjoy extracurricular activities, hanging out, and television watching all that much or when they are harassed by their peers while at school.

2) "Be Like Me" Conformity pressures from other students: The other two expressions on the left hand side of the equation characterize peer support for or denigration of academic achievement. Study effort is encouraged if higher academic achievement lowers risks of harassment and increases popularity with one's crowd (H^m_L is negative) or school wide (H^p_L is negative).

As stated earlier, for most types of achievement more is better in the eyes of one's peers. When, however, it comes to academics, in depth interviews and ethnographic studies indicate that, in most schools, there is a norm—an optimal level of academic effort or achievement that maximizes popularity and minimizes harassment. Deviating from that norm

on either the down side or the up side is typically sanctioned. A simple way to model this "Be Like Me" conformity pressure from the school's leading crowd(s) is to assume that $\delta (L^i - L^N)^2$ enters the H^P function. L^N is the school norm specifying the optimal level of academic achievement [chosen by the leading crowd for themselves and the whole school] and $\delta > 0$ measures how strong conformity pressures are to be similar to school norms in one's commitment to academic learning. The "Be Like Me" pressures operating within the crowds are modeled by assuming that $\delta^m(L^i - L^m)^2$ enters the function describing harassment from other members of one's crowd (H^m). Since δ and δ^m are positive, the derivative of harassment with respect to academic achievement is positive when $L^i > L^N$ and $L^i > L^m$ (i.e. the student's grades are above the school wide or crowd norm) and negative when $L^i < L^N$ and $L^i < L^m$. Thus students with low grades are likely to experience less harassment if they try harder and so peer pressure encourages greater effort. Students with high grades are discouraged from studying. This suggests that harassment tends to be visited on students whose commitment to school is either way above or way below the norm set by the leading crowd. Bishop et al (2002) analysis of the first wave of Educational Excellence Alliance survey data found considerable support for this hypothesis. We will test this hypothesis again.

3) The Zero-Sum Competition for Grades: But is a desire to impose conformity the sole reason for nerd harassment? Let's listen to what members of the popular crowd have to say about nerds. At Harbor Edge, a school sending 96 percent of graduates to college, Robyn described Nerds as "*being very involved with school, asking a million questions in class, and not having much fun in their spare time….If someone asks a question and you're considered a nerd, then people will be like, 'Oh, shut up!' But if you're not* [a nerd], *then no one says anything. It's a double standard*." Despite her expressed sympathy for the nerds, Robyn said at another point in the interview, *"Well my friends and I always makes fun of this one girl; all she does is study. It's like she studies for college already* [10th grade]—*that's so stupid."*[31]

At Newport Junction, a school sending 94 percent of its students to college, Eliza characterized 'dorks' as *"constantly asking questions in class."* This annoyed the other

students. She recounted what happened in her English class. *"Nobody likes this girl. She talks and says the stupidest things which makes everyone want to cringe. It gets out of hand, so these boys stood up in the middle of class and shouted, 'You're a loser, just shut up and get out of this class.' The teacher had no control."*[32] When, however, students were asked a direct question about the effect of studying on popularity, students denied that studying made one a nerd: *"If you're smart you're lucky; no one considers you a nerd as a result. Everyone wants to get good grades now because of college, so you kind of envy those who do well."*[33]

At small intimate Lakeside High School where 89 percent of graduates go to college, we were told the same thing: "*If you study too hard, it will reflect in a good grade, and nobody makes fun of a good grade… People who don't care about* [grades]*, they don't say anything because probably they wish they could have gotten the same grade. So if you study hard and you get a good grade, people may envy you…but you wouldn't get ridiculed for it."*[34] That's what a direct question about nerd harassment elicits, but the class also appears to have a norm against working hard.

> *"In our grade in general, nobody wants to work hard at all. I'm friends with people who are juniors…and they are pushing…I think it's a little too competitive, so I'm glad I am not in that grade….* [In our grade] *everybody is smart enough to do the work, but everybody is too lazy to actually do it."*[35]

There was one exception to this generalization: Rebecca a recent transfer from a competitive private school. Her goal was to be the valedictorian. How did people react to her? *"Rebecca is really, really smart. But I think* [school work] *is all she does. She only cares about school and she stresses on school way too much. And it gets annoying to people*." Rebecca realized she was unpopular, but gave her situation a positive spin. "*I don't like it here, but the only good thing is that since* [Lakeside] *is so small, you have a better chance at being higher in the class. So maybe, hopefully I'll be valedictorian, and be at the top.*[36] Lakeside's 10th graders saw themselves as reacting to Rebecca's obsessive personality, not to her academic work ethic. But if Rebecca had been obsessed about being the best basketball player, would they

have reacted negatively? Probably not. Success in becoming a better basketball player helps Lakeside defeat rival schools. Becoming the valedictorian, by contrast, means someone else in the class does not.

EEA survey responses confirm that being competitive about grades tends to make one unpopular. Fifty-one percent of students said "It's not cool to be competitive about grades." By contrast, only 19 percent said 'It's not cool to frequently volunteer answers or comments in class." and only 15 percent said 'It's not cool to study real hard for tests and quizzes." Thus, the third reason why peers might try to discourage studying is the zero sum nature of the competition for good grades caused by grading on a curve and the use of class rank as a criterion for awarding a fixed number of prizes and for admission to competitive colleges. Kenneth Arrow has said that "norms of social behavior, including ethical and moral codes, ….are reactions of society to compensate for market failure."[37] Peer group norms may, similarly, be reacting to the rat race character of the competition for grades in academic classrooms.

Peers are unable to monitor studying at home, so their efforts to deter it are based (1) partly on observing how much time a student spends in extra curricular activities and hanging out after school and rewarding that behavior and (2) partly on observing grades and sanctioning those with high grades. Thus by this argument the purpose of nerd harassment is not punishing high aptitude students for being smart, but discouraging study effort.[38] Indeed, pressure against doing all your homework or trying to get high grades will probably be stronger in low track classes than high track classes because the students in low track classes are more likely to have chosen an identity that rejects school.[39] It is not clear, however, that the 'do not compete for grades' motive is decisive because students can also benefit from the study effort of classmates.

4) Learning Multipliers: The fourth reason why students might care about the study effort and learning of their classmates is the learning multipliers specified in the learning function (equation 2). The assumption that $L_{L^*} > 0$ implies that successful learning by classmates helps

me learn. This might arise because classroom discussions are more worthwhile, classmates explain things that were not understood at first, teachers move through the curriculum more rapidly or because teachers have more time to give me individualized attention. If these effects are perceived to be important, I would have an incentive to encourage my classmates to try to learn the material, to pay attention in class and to do their homework.

Which of these two effects—learning multipliers or 'don't compete for grades'--dominate? Let's first estimate how an individual's utility is affected by an increase in learning by other students. To do that, we substitute (2) into (9) and differentiate with respect to L* holding norms and time allocation decisions constant.

15) $U_{L^*} = (I_L + \$_L) L_{L^*} - R_{L^*}$ where $L_{L^*L^*} > 0$.

The first thing to note about (15) is that students will tend to favor others trying hard when they perceive the learning multiplier (L_{L^*}) to be large and when they get substantial intrinsic payoffs to learning and substantial extrinsic rewards for absolute learning ($I_L + \$_L$ are large). If most of the rewards for learning arise from how one is ranked relative to other students in the class (R_{L^*}), students will be more likely to want to discourage academic effort by others.

What will the school wide norms be?

New members of a crowd learn its norms from the older members and from school wide stereotypes that apply to the crowd. The current leadership of a crowd also often selects and grooms the next generation of leaders. Leadership typically goes to the members who show the greatest commitment to crowd norms and who spend a great deal of time interacting with other members. Cusick concluded that, "It is simply not possible to be a sometime group member and expect to maintain any influence."[40] If the students who gain leadership in a crowd have internalized the norms they were taught, norms will be transmitted unchanged from one generation of students to the next. Despite the forces for stability just described, circumstances and personalities change so the norms preferred by crowd leaders will change. It is costly, however, for new leaders to change the norms of their crowd. Consequently, it is natural to

assume that norms will adapt only partially ($0< \gamma < 1$) to a discrepancy between the current leadership's preferences and last year's norms. This is likely to be just as true for school wide norms as for crowd norms. What would school wide norms look like in equilibrium (i.e. successive generations of leading crowds had identical utility functions and a stable external environment).

Now let's put ourselves in the shoes of the leader(s) of the popular crowd(s). How do they decide whether, in what direction and how much to try to change school wide norms? Their maximization problem is different, from the one faced by other students. In equilibrium their behavior is consistent with school wide norms because they have changed school wide norms so that the personal choices they make (in their own private interest) are normative behavior for everyone. Thus, the leadership's decision about how hard to study determines their own achievement level and sets an example for everyone else that establishes the new values for L^N (the school wide target learning level), L^M (the target for their own crowd) and other parameters of the harassment/honor function.[a] Consequently, they are at the minimum point of the harassment envelope where the derivative of harassment with respect to L is zero (H^m_L =0, H^p_L =0) so the 2nd and 3rd term of (11) drop out. In it's place the leaders must assume that the norms for everyone else (the values of L^N and L^m) and average achievement levels (L^*) will respond to their decisions about study effort and their ability to enforce the norms they signal. If they study harder, their classmates will study harder but not necessarily to the same degree. If they slack off, classmates will slack off but again not to the same degree. Consequently, there will be a multiplier effect that operates through the changes in academic engagement their leadership brings about. The first order condition for study effort by the leadership of the leading crowd(s) would be:

15) $$[(I_L+\$_L+R_L)L_{Tj}-R_L L^*_{Ln}L_{Tj}][1 +L_{L^*}L^*_{Ln} +(L_{L^*}L^*_{Ln})^2+(L_{L^*}L^*_{Ln})^3+\ldots] - \phi^m T^P H^m_L L_{Tj} - \phi^i T^S H^p_L L_{Tj} = \lambda$$

16) $$\frac{[(I_L + \$_L + (1- L^*_{Ln})R_L)L_{Tj}]}{(1 - L_{L^*}L^*_{Ln})} = \lambda$$

[a] This is an important feature of the model. If the leading crowd(s) could establish a school wide norm against studying hard while violating the norm themselves, they could exploit their norm setting power to aggrandize themselves at the expense of the other students. Hypocrisy is not likely to be a successful strategy because it would be discovered and the leaders would be deposed or ignored. Leadership based on persuasion (as must inevitably be the case for student leaders) must be by example.

where L^*_{Ln} = the increase in average learning at the school when the leading crowd's norm (L^N, L^m) go up by one unit. This parameter reflects the power of the leading crowd to lead the rest of the student body to higher or lower levels of study effort by the way they honor those who conform to the academic effort norms they have set and punish norm violators. This is described by the structure the harassment/honor function and the susceptibility of the students to their leadership (the magnitude of ϕ^m or ϕ^i).

L_{L^*} = the increase in the leadership's learning resulting from a one unit increase in school mean learning.

Equation 16 is the first order condition that simultaneously determines (a) how much time the leaders of the popular crowds would like to spend studying and (b) the norm that they would like to set for the rest of the student body. Our interviews and Reinhold Niebuhr's dictum that groups almost always act in their own self-interest suggest that a powerful leading crowd (or coalition of popular crowds) will lead their peers to a system of normative evaluations (e.g. values for L^N, L^m and the other parameters of the harassment/honor function) that place the members of these crowds at the top of the school's prestige hierarchy.[a] Norms are not being set by a political process where the median voter has great influence. Indeed school elections are not the arena where these issues are debated and decided. Instead norms will reflect the personal preferences of the leadership and core members of leading crowds, groups that are not representative of the student body as a whole. Our statistics suggest that they are stronger, taller, slimmer, more self-confident, more athletic, more social, more attractive, smarter, richer and more clothes and appearance conscious than the average student. They are more likely to have a dominating personality and a taste for hanging out with peers and the opposite sex. For boys, strength, toughness and athletic ability are particularly important. For girls attractiveness and social skills are particularly important. The norms that they try to persuade the rest of the school to adopt will reflect their gifts and their interests. The traits just listed will likely be highly valued in the normative system the populars propose the whole school adopt.

[a] "In every human group there is less reason to guide and check impulse, less capacity for self-transcendence, less ability to comprehend the needs of others and therefore more unrestrained egoism than the individuals who compose the group reveal in their personal relationships." Reinhold Niebuhr, Moral Man and Immoral Society, (New York, Charles Scribner's Sons, 1933), p. xii.

The leadership and core members of popular crowds spend more time on sports, extracurricular activities, hanging out and partying than their peers. This makes it difficult for them to devote a lot of time to doing homework and other academic work. It wasn't their academic achievements that made them prominent and powerful in the eyes of their peers. This suggests that these leaders will tend to set norms that give high priority to extracurricular and social achievements and low priority to academic achievements [at least relative to the norms that might have been established by a democratic process or a randomly selected group of students]. Their leadership will transmit messages like: "Partying, hanging out, and sports (the activities the members of the leading crowd(s) enjoy and devote a lot of time to) are fun and confer prestige. Chess, programming computers and other activities we don't enjoy are weird or 'uncool.'"

III. Testing Nerd-Slacker Harassment Theory in the 2nd Wave of the Educational Excellence Alliance's Survey of Student Culture

The analysis to follow will focus on testing the "Be like Me" hypothesis of a curvilinear relationship between academic achievement and peer harassment. We hypothesize that academic ability, like athletic and social ability, helps one succeed in becoming popular and avoiding harassment. High ability also influences who one hangs out with—typically students taking honors courses—and this should also reduce harassment. Conditional on ability, however, we hypothesize there will be a curvilinear relationship between GPA (or more direct measures of study effort) and peer harassment. Students who substantially deviate from the school's effort norm on the down side and get low GPAs will experience above average amounts of harassment—"Slacker Harassment" it might be called. Students who deviate from the effort norm on the plus side and get high GPAs will also experience above average amounts of harassment. Nerd harassment is the traditional name for this phenomenon. We also predict that nerd harassment of high GPA students is likely to be much stronger for boys than girls. Our measure of Peer Harassment is:

- The frequency of teasing and verbal and physical harassment by peers—The total number of Incidents per year for four different kinds of harassment—"I was pushed, tripped or hurt," "Someone threatened me at school," "I was insulted, teased or made fun of to my face," and I was insulted or made fun of behind my back." The mean is 89.9 for males and 56.5 for females.

Let us first examine graphs describing how the number of incidents of harassment are related to a student's ability and GPA. Figure 1 depicts harassment of males as a function of their ability and GPA. More able students receive less harassment. However the graph of harassment on the GPA for low ability students has a very pronounced V shape or U shape. Holding ability constant, harassment appears to be minimized when GPA is between a B minus and a C minus. Most students GPAs exceed C minus. Indeed 88 percent of the struggling students--those who completely understand the teacher's lesson less than 65 percent of the

time—have GPAs above C- and so are predicted to suffer increased peer harassment if they improve their grades. Thus it is less able students who must work diligently to get good grades who appear to get most of the nerd harassment. For more able males peer harassment does not rise with GPA once GPA exceeds C minus. It looks like the male subculture in the honors track neither rewards nor sanctions getting high grades while norms in the lower tracks often discourage trying hard to get good grades.

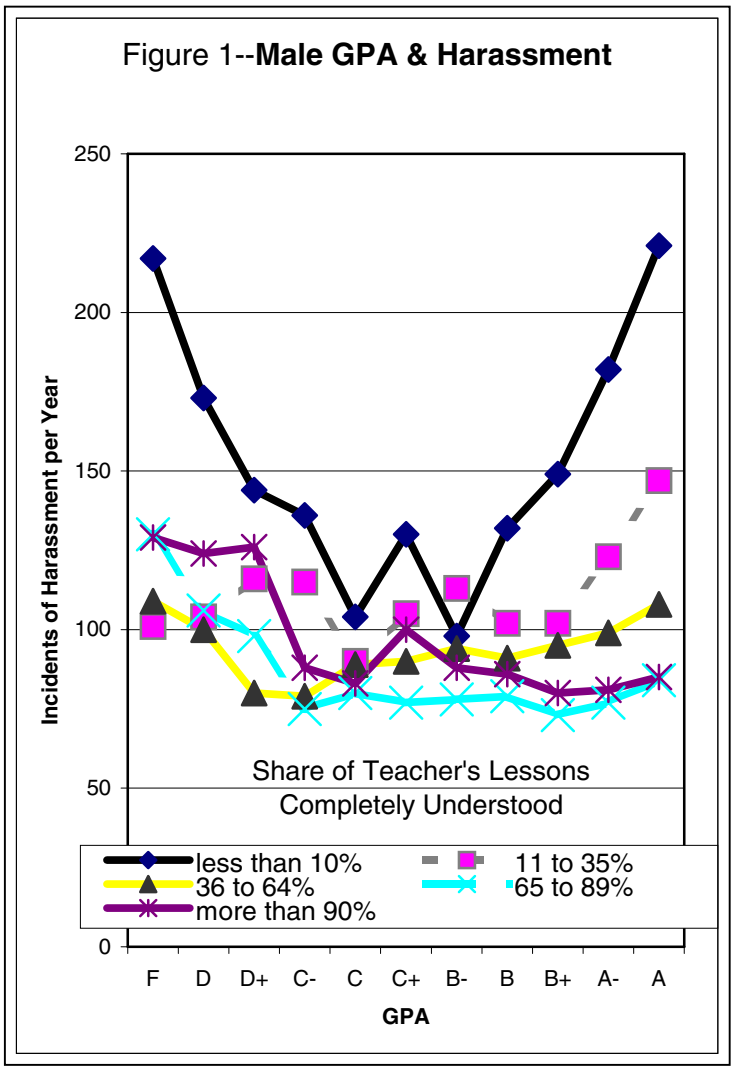
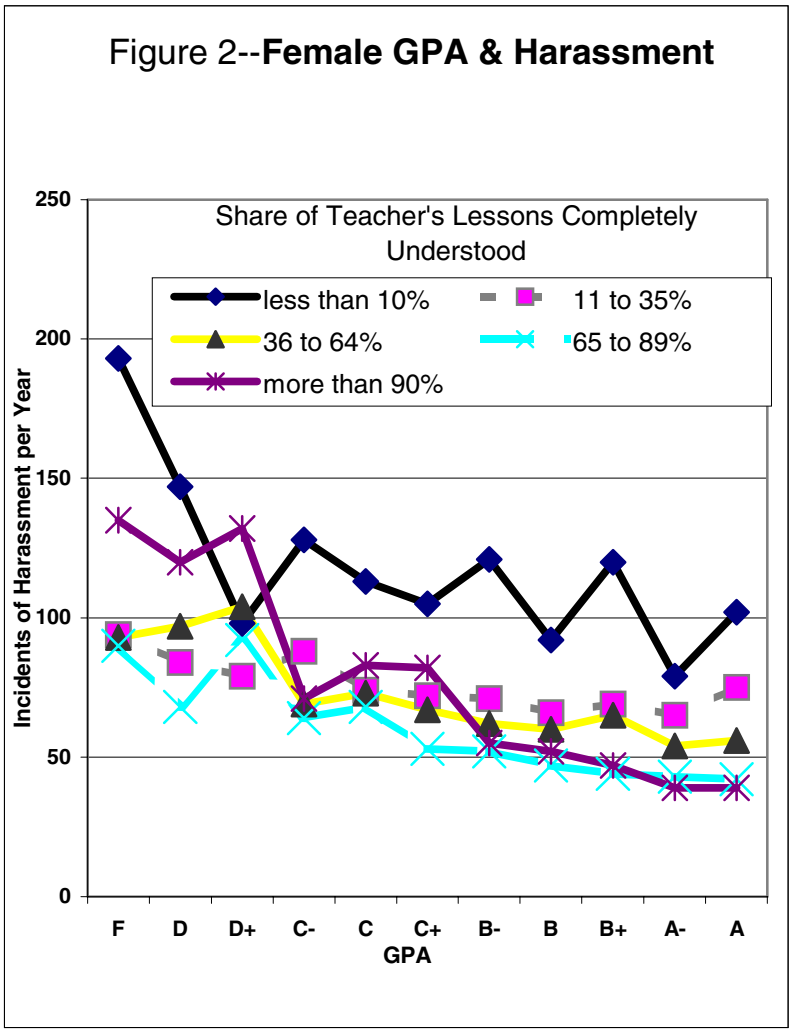


Figure 2 plots harassment relationships for females. For girls, as for the boys, high ability is associated with lower risks of peer harassment. For females, however, a higher GPA is also associated with lower risks of harassment in all ability groups. This suggests academic

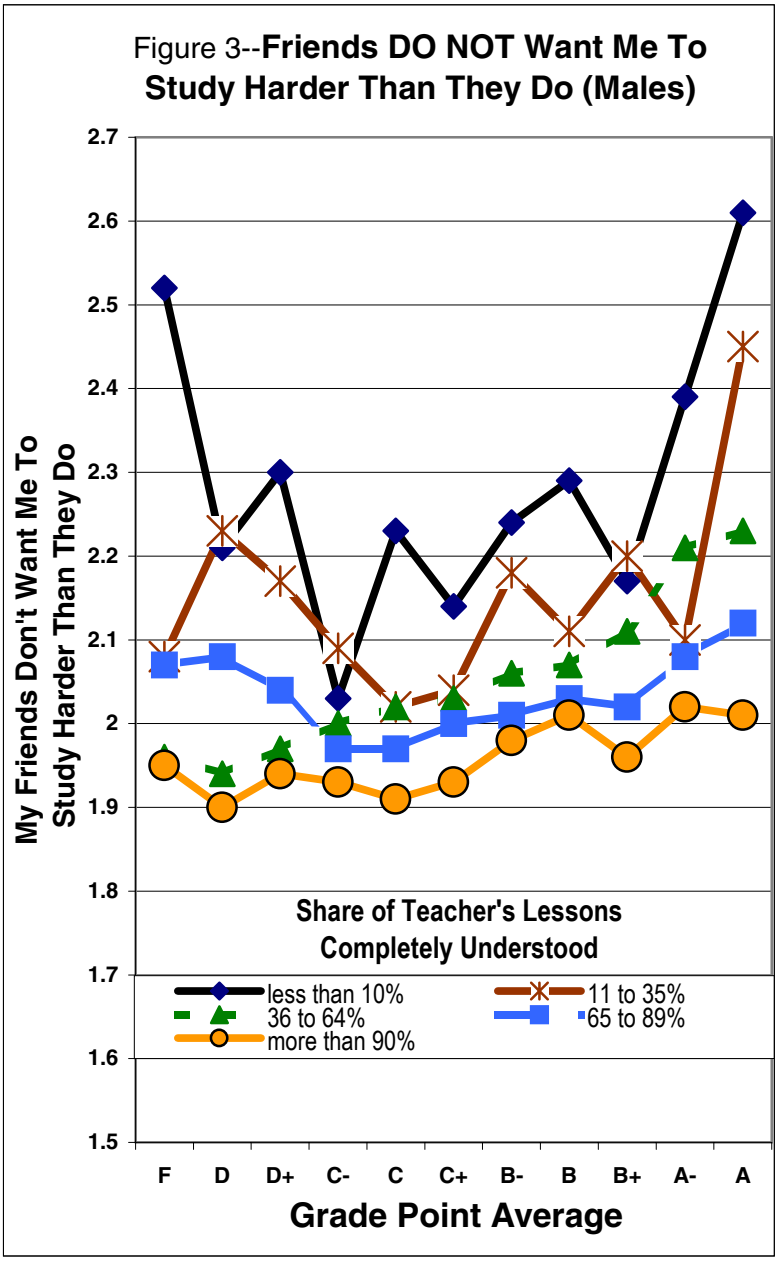
success enhances popularity with classmates and this is true even for girls of low ability. Girls are rewarded by their peers for studying, not sanctioned as boys are. Apparently, in the middle class schools surveyed, slacker harassment is prevalent in both the male and female sub-cultures. Nerd harassment, by contrast, was not found in the female sub-culture, only in the male sub-culture.

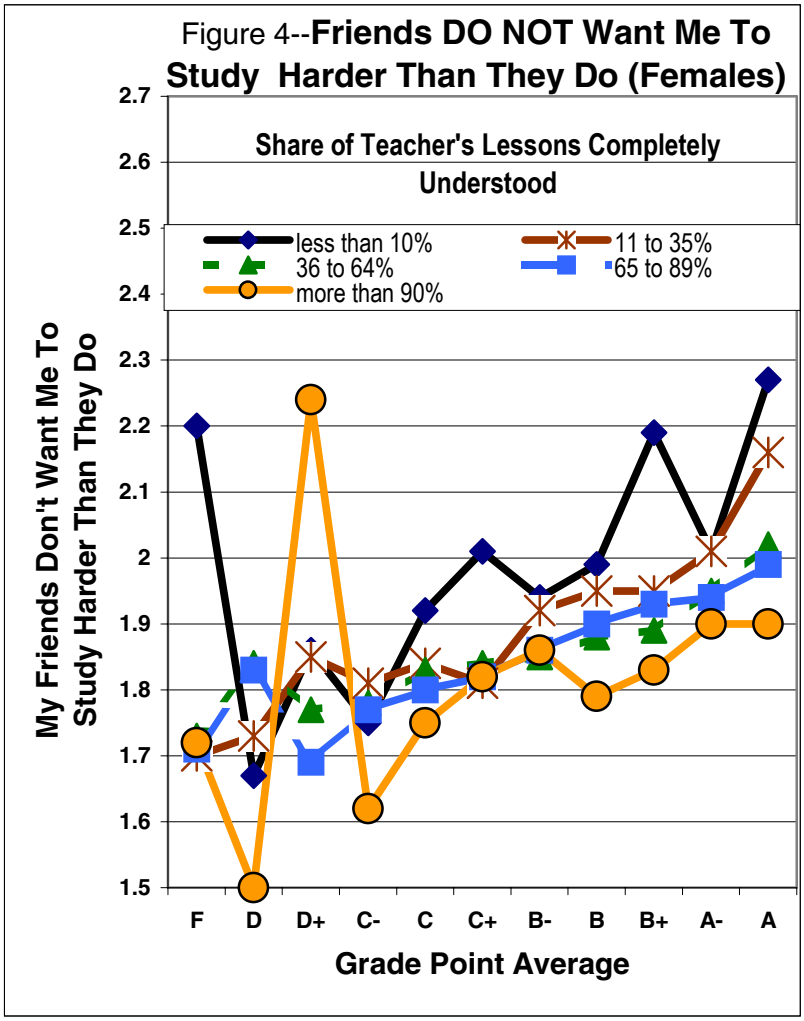
To explore these issues further I graphed the effect of ability and GPA on answers to two questions where students reported on the direction of peer pressure regarding studying:

- "My friends DO NOT want me to study harder than they do." [1 to 4 scale running from Strongly disagree to strongly agree]
- "My friends want me to study harder than I do" [1 to 4 scale running from Strongly disagree to strongly agree]



The results for 'Friends DO NOT want me to study harder than they do' are presented in Figures 3 and 4. Males and less able students are more likely to report this kind of direct pressure against studying. Holding ability constant, pressure against studying harder than friends gets stronger as GPA rises.





The results for 'Friends want me to study harder than I do,' are presented in Figures 5 and 6. Direct pressure from peers to study harder seems to be unrelated to ability but is much greater on students with low GPAs. Encouraging peers who are slacking off to try harder seems to be somewhat stronger for girls than boys, but it is substantial for both. Taken together these results suggest once again that students tend to encourage students who are doing poorly in school to try harder and to discourage high performers from working so hard. This is exactly what one would expect if there were an effort or achievement norm.

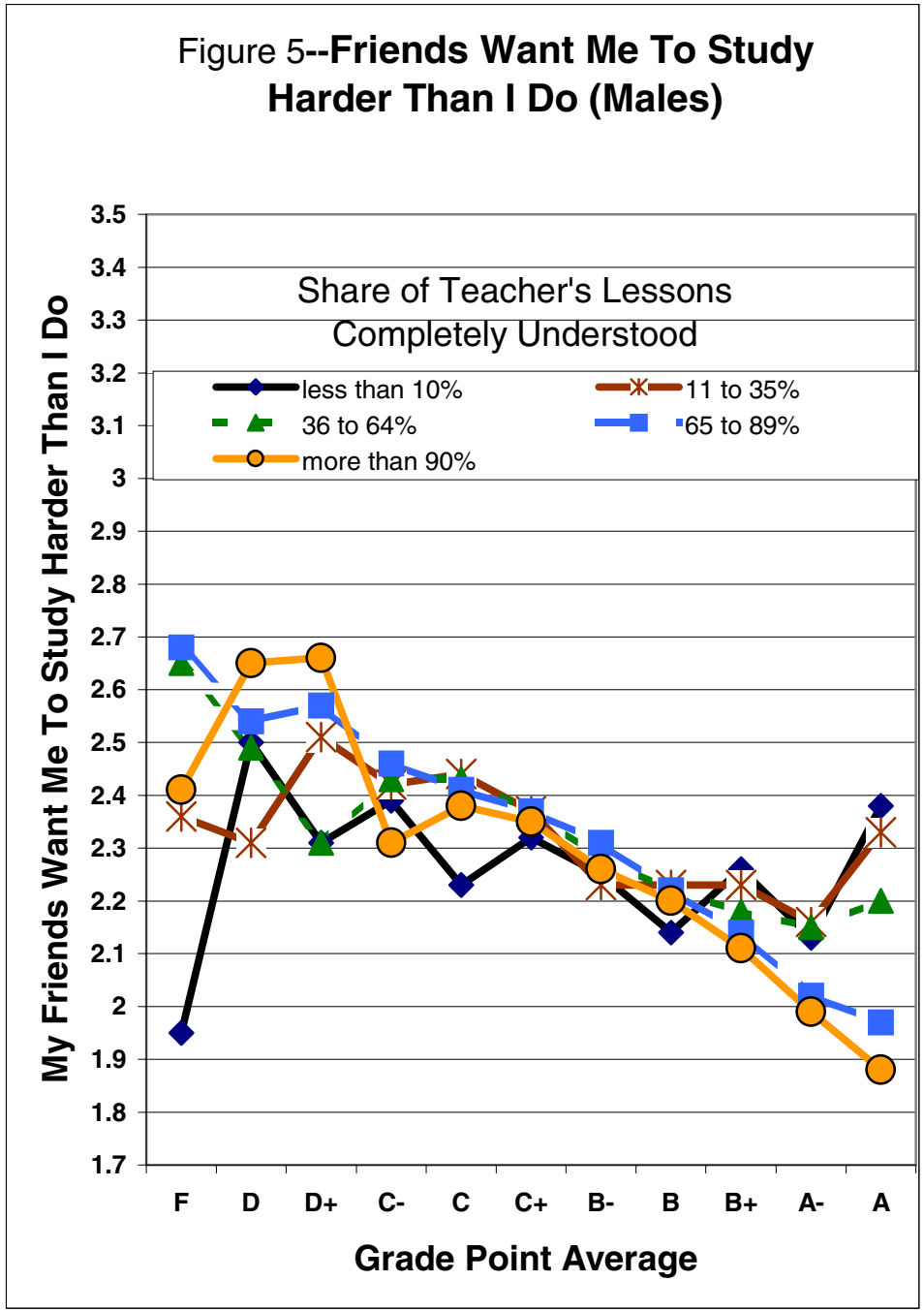


Figure 5--**Friends Want Me To Study Harder Than I Do (Males)**

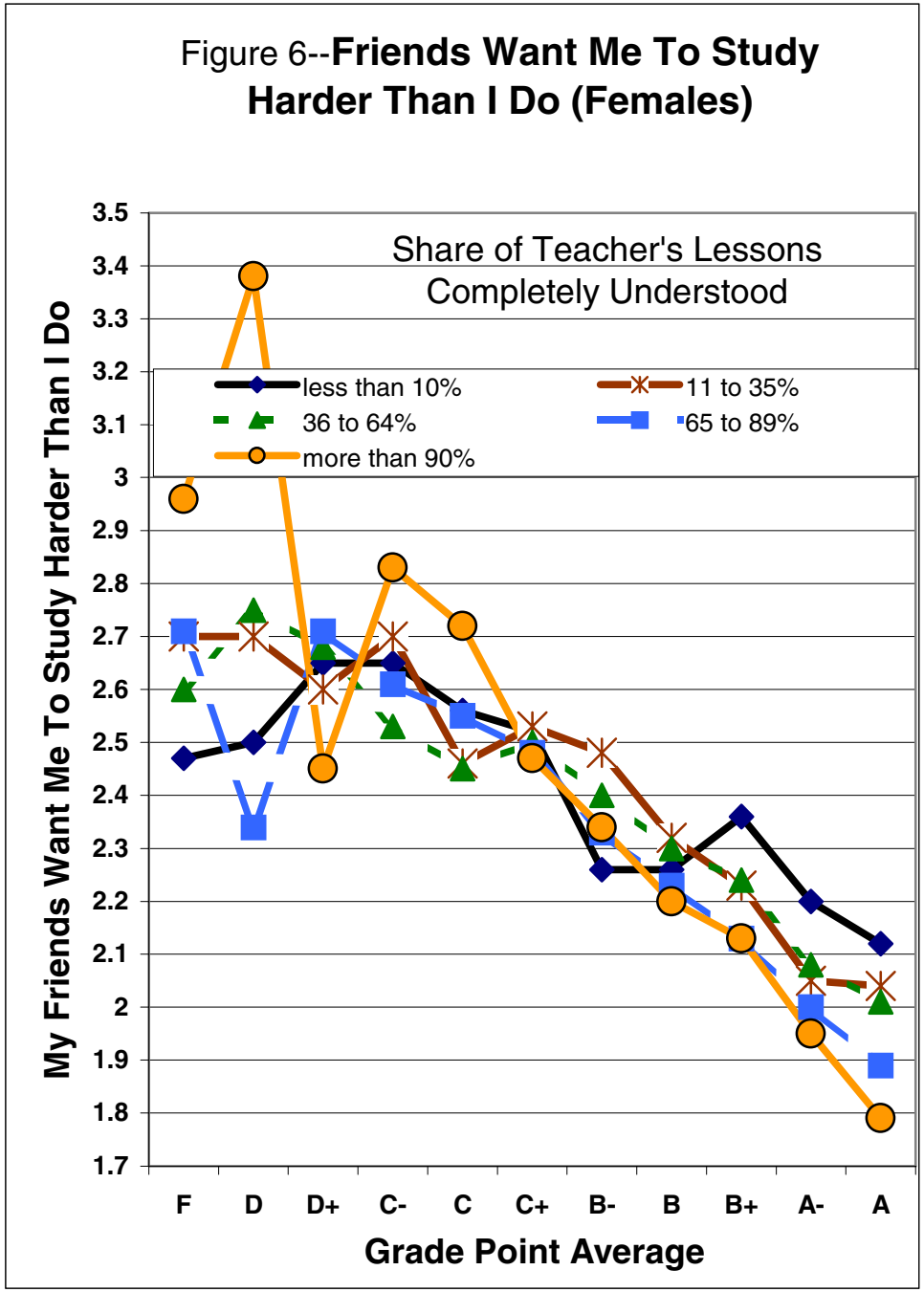
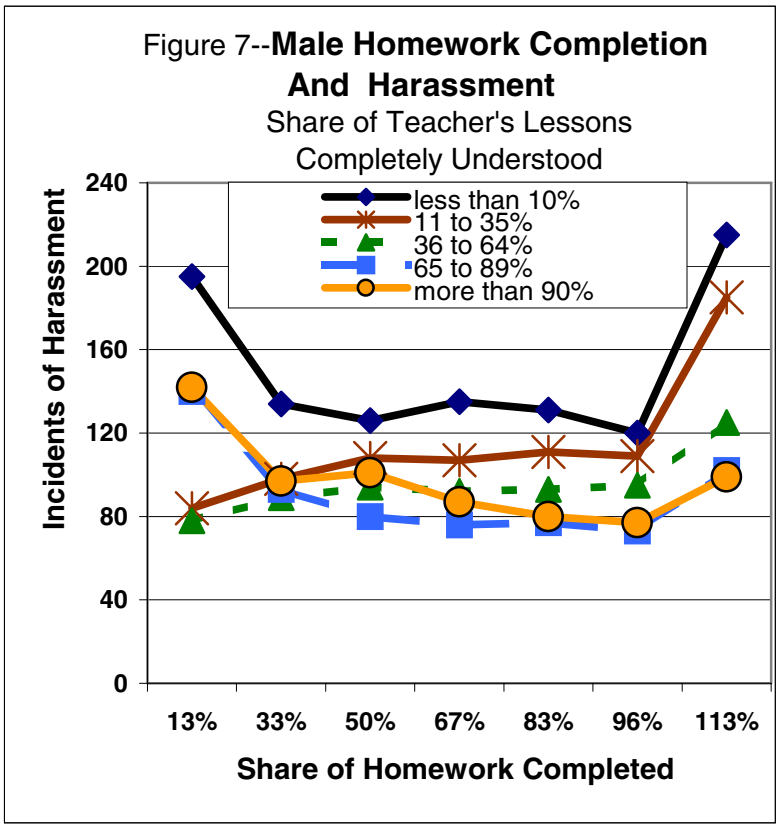
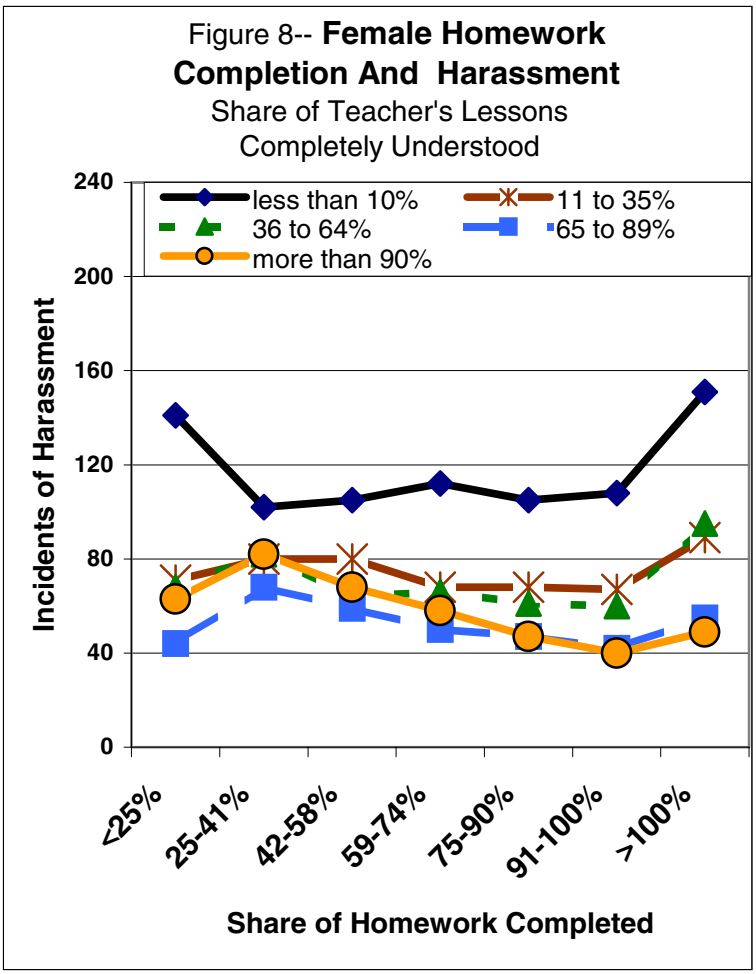


Figure 6--**Friends Want Me To Study Harder Than I Do (Females)**

How is harassment related to direct measures of effort? Figures 7 and 8 present data on harassment by ability and a direct measure of study effort. Our measure of effort is the proportion of homework completed by the student. Rates of harassment are significantly lower for females but relationships between harassment and other variables are similar for males and females. The most academically able students experience considerably less harassment. Holding ability constant, there is an unmistakable U shape to the relationship between homework completion and harassment for both males and females. Rates of harassment are very high for students who report doing none of their homework in at least one of their courses. Rates of harassment are even higher for students who said that in some courses they did "more than required" by the homework assignment. These students are apparently considered nerds by their classmates. Male students who consistently said they did 'some of it [homework],' 'most of it' or 'all of it' experienced roughly comparable low levels of harassment. For female students of moderate and high ability, the students who do all of their homework experience the lowest rates of harassment.





Regression Analysis

In order to see whether these conclusions stand up when a full set of controls are included in the model, OLS models predicting Peer Harassment and the two direct measures of directional peer pressure were estimated. Multivariate analysis is desirable because peer harassment does not depend solely on how classmates react to (sanctioning versus honoring) a student's study effort and grades. Other qualities such as participation in sports and spending time socializing matter more. These other qualities need to be controlled for. Another concern is that incidents of harassment are also likely to depend on whom one is hanging out with and how much time one spends with them. In some cliques and crowds insults and teasing are a customary part of daily interaction. In others crowds, teasing and insults are discouraged.

Crowds also differ in their normative orientation. Finally kids are labeled by their crowd assignment and some of these labels generate harassment (eg. the Freaks in Longview High School). The multivariate models, therefore include a host of variables designed to measure the other influences on rates of peer harassment such as time spent involved in extracurricular activities and hanging out and indicators of which crowd the student is considered to be a part of.

Control Variables: The controls for student background include grade in school, a dummy variable for 6th, 7th or 8th grade, parent's education, books in the home index, parents speak a foreign language at home, dummy variables for having one or more personal computer at home, number of siblings, living in a single-parent family, living in a blended family [having a step-parent], living with no parent [with relative or a friend], two self reported indicators of learning ability, dummy variables for being African-American, Hispanic, Asian, Native American, mixed ethnicity and did not answer questions about race. The means and standard deviations of all variables are presented in Appendix D.

Hypotheses and Findings

Results are presented in Table 1. The first two columns present results from regressions predicting harassment estimated in the full data set (50,732 students after observations are excluded because of missing data). The analysis presented in columns 3 through 8 use data from a version of the questionnaire that has the two directional peer pressure questions analyzed in Tables 9-12 and questions about 'types of music you listen to the most.' We asked about preferences in music because it is a signal of which crowd a student is in and of the student's extracurricular interests.[a] Students spend time listening to music with other members of their clique, so this is one of the choices they are forced to be conformist about. The kids who like heavy metal tend to hang out together as do those who like country

[a] The EEA survey did not ask students a direct question about which crowd they were in for three reasons. We would have had to construct a separate questionnaire for each school using local names for the crowds (as Bradford Brown and colleagues have done). Accuracy of the self-reports is a second problem. Students who are classified by peers as in a low status crowd often self identify themselves as in no crowd or a higher status crowd. Finally, we were concerned that some students might be upset by the question.

music or classical music. When the music questions are included in regressions predicting harassment, there are 37,184 students with complete data in the analysis sample.

Indicators of crowd membership: The "Be like Me" theory predicts that students in the bottom track and top track classes will experience the most harassment. The EEA survey has three indicators of participation in bottom track classes: a dummy variable for Special Education student, having taken remedial courses and having taken blue-collar career technical education courses. The twenty-five percent of students who had taken a remedial course sometime since 6th grade were not at greater risk of being harassed. However, the five percent of students who were in special education were at much higher risk (50 percent higher among girls) of being harassed. Students in blue-collar occupational education courses also experienced about 10 percent more harassment.

At the other end of the ability distribution, the sixteen percent of students in gifted programs were harassed about 15 percent more than other students. Students who took accelerated courses in middle school also experienced significantly more harassment but the effect was small. Current participation in honors and AP courses had no consistent effects on harassment. The male students whose friends thought it was 'important to go to one of the best colleges' were slightly less likely to be harassed.

The results for the music preference variables are quite revealing. Rap & Hip-Hop music was much more popular (two-thirds of students selected it) than any other type of music. Male students who liked Rap were significantly (17 percent) less likely to be harassed. Liking Rap music had no effect on risks of harassment for girls. Other popular kinds of music--modern rock (selected by 32 percent) and classic rock (selected by 16 percent) had no association with harassment. The types of music associated with higher rates of harassment tended to signal distinctive life styles pursued by small minorities of the school's students. Heavy Metal music was associated with a 40 percent increase in harassment for girls and a 20 percent increase for males. Girls who liked Salsa music or Dance-Techno music experienced about 12 percent more harassment. Rates of harassment were about 25 percent higher for those who liked country

music, 15 percent higher for girls who liked musicals, 25 percent higher for boys who liked musicals and 16 percent higher for boys who liked classical music. Taking a band or orchestra course had no relationship with levels of harassment. Having taken a theatre course, however, was associated with a 20 percent increase in harassment for boys and a 10 percent increase for girls. Tutoring other students was also associated with a roughly 10 percent higher rate of harassment. These effects can add up. Boys who like classical music and musicals, have tutored others and taken a theatre course and courses for the gifted are predicted to experience nearly twice as much harassment as other students, even when their homework completion rates and patterns of time use are in line with every one else.

Time use: Consistent with the "Be like me' hypothesis, studying and completing your homework has a concave relationship with harassment. Those who devote little time to studying and do not complete their homework tend to be harassed more than those who conform to school norms regarding study effort. Similarly students who study much more than average and complete all their homework also tend to get extra doses of harassment. If a student who currently spends 1.87 hours a day (the sample mean) studying increased study time by 2 hours a day by cutting back on socializing and increased the share of homework done from 78 percent to 100 percent, our regression equation predicts that harassment will increase by 16 percent for males but only 6.7 percent for females. What happens if a student increases studying from zero to 2 hours a day, a level roughly equal to the mean for all students? If the study time comes at the expense of hanging out and the share of homework done goes up 56 percent to 78 percent (a one standard deviation increase in homework completion), harassment is predicted to fall by 5 percent for males and by 16.6 percent for females. These simulations of the regression parameters tell the same story as Figures 7, 8, 13 and 14. The culture encourages slackers to try harder and discourages what peers view as 'excessive levels of studying.' The other major conclusion is that the female subculture is considerably more supportive of studying than the male subculture.

This is also the clear implication of the regression analysis of the directional measures of peer pressure in columns 5 through 8 of Table 1.

Table 1-- Determinants of Harassment—2nd Wave of EEA Survey

	Physical + Verbal Harassment / year		**Physical + Verbal Harassment**		**Friends DO NOT want me to study harder than they do**		**Friends want me to study harder than I do**	
	Male	Female	Male	Female	Male	Female	Male	Female
Belief School is Zero-Sum								
If others study hard, it's harder to get A's	**9.9** (1.3)	**6.3** (1.0)	**10.6** (1.4)	**5.4** (1.1)	**.097** (.007)	**.114** (.007)	**.044** (.007)	**.065** (.007)
Study Effort & Time Use								
Share Homework done [0→1.25]	-2.6 (5.2)	-7.2 (3.9)	-10.3 (5.9)	-6.8 (4.4)	**.072** (.029)	**.076** (.028)	**-.343** (.030)	**-.493** (.029)
Square of (Share of Homework done - .78)	**78.1** (12.2)	**52.7** (11.5)	**78.1** (14.3)	**59.0** (13.1)	**.321** (.071)	.049 (.083)	**-.423** (.071)	**-.565** (.087)
Studying (hrs/day)	1.8 (1.0)	-1.0 (0.7)	2.0 (1.1)	-0.5 (0.8)	**-.014** (.006)	-.008 (.005)	-.010 (.006)	-.007 (.005)
SQ of (Study hr – 1.87)	**2.0** (0.3)	**0.9** (0.21)	**1.56** (0.35)	**0.71** (0.23)	**.0044** (.018)	**.0030** (.014)	-.0012 (.0017)	-.0016 (.0017)
TV, video games (hrs/ day)	**5.1** (0.5)	**3.1** (0.36)	**4.45** (0.56)	**2.54** (0.41)	-.005 (.003)	.004 (.003)	**-.011** (.003)	-.002 (.003)
Work for Pay (hrs/day)	**1.3** (0.5)	0.65 (0.35)	**1.34** (0.58)	**1.19** (0.41)	-.002 (.003)	-.002 (.003)	**.009** (.003)	.005 (.003)
Extra-curricular Activity (hrs/day)	-0.83 (0.55)	0.8 (0.43)	-0.15 (0.64)	0.92 (0.50)	.000 (.003)	.002 (.003)	**.011** (.003)	.003 (.003)
Hanging out (hrs/day)	**-1.7** (0.54)	0.60 (0.38)	**-2.00** (0.65)	0.21 (0.44)	-.002 (.003)	**-.006** (.003)	**.006** (.003)	**.015** (.003)
High Acad. Achievement								
In Gifted Program	**12.8** (2.8)	**6.3** (2.0)	**10.1** (3.1)	**5.2** (2.1)	.003 (.015)	.006 (.014)	-.023 (.017)	-.021 (.014)
Tutored Other Students	**7.1** (2.5)	**5.5** (1.6)	**7.9** (2.8)	**5.4** (1.7)	-.003 (.014)	.009 (.011)	.009 (.014)	.001 (.015)
Took Theater Course	**16.9** (2.7)	**6.0** (1.6)	**15.2** (3.0)	**6.4** (1.8)	.027 (.015)	.006 (.011)	-.020 (.015)	-.015 (.012)
Took Band/Orchestra Course	**3.9** (2.0)	2.2 (1.4)	0.2 (2.3)	-0.2 (1.5)	.004 (.011)	.017 (.010)	**-.027** (.011)	-.017 (.010)
# of Accelerated Courses in middle school	**2.1** (.8)	**1.6** (0.6)	**2.7** (1.0)	**2.1** (0.7)	.009 (.005)	-.003 (.004)	**-.0096** (.0048)	**.0094** (.0046)
Taking one or more honors or AP course	3.7 (3.0)	0.1 (2.1)	2.9 (3.3)	0.5 (2.3)	.019 (.017)	.012 (.015)	.000 (.017)	.000 (.015)
Taking at least one AP course	**-8.0** (4.0)	2.4 (2.8)	-3.5 (4.3)	1.8 (2.9)	.006 (.021)	.010 (.019)	-.002 (.022)	**-.078** (.020)
# of Honors & AP courses	-0.5 (1.0)	-1.2 (0.7)	-0.8 (1.1)	-1.0 (0.8)	.002 (.006)	.007 (.005)	**-.023** (.006)	**-.028** (.005)
Low Acad. Achievement								
In Special Education	**21.4** (3.9)	**25.6** (3.4)	**22.6** (4.5)	**20.1** (3.8)	.004 (.022)	.037 (.024)	**.072** (.022)	.017 (.026)
Took Remedial Course	-3.2 (2.2)	2.1 (1.6)	-2.4 (2.5)	3.4 (1.7)	-.015 (.012)	.029 (.011)	**.031** (.012)	**.024** (.012)
Took a Blue Collar Vocational course	**8.7** (3.0)	**9.4** (3.2)	**7.0** (3.4)	4.5 (3.5)	.032 (.017)	.024 (.022)	**.052** (.017)	.035 (.023)
Friends College Goals								
Friends think its important to go to one of the best colleges	**-2.3** (0.9)	-0.3 (0.7)	**-2.4** (1.1)	-0.7 (0.8)	**-.032** (.005)	-.031 (.005)	**.124** (.005)	**.129** (.005)

Table 1 (cont)—Determinants of Harassment

	Verbal + Physical Harassment / year		Verbal + Physical Harassment		Friends DO NOT want me to study harder than they do		Friends want me to study harder than I do	
	Male	Female	Male	Female	Male	Female	Male	Female
Ability- Less visible to others								
Share of Teachers' lessons completely understood [0 to 1]	**-39.7** (4.4)	**-36.5** (3.2)	**-41.6** (5.2)	**-28.6** (3.7)	**-.084** (.026)	-.037 (.023)	**-.112** (.026)	**-.195** (.024)
How quickly I Learn Things? [0→1]	-0.2 (5.8)	**-22.5** (4.6)	4.5 (6.7)	**-22.7** (5.1)	-.045 (.033)	.026 (.032)	**-.141** (.033)	**-.233** (.034)
Intrinsic Motivation								
Like Learning [SD=1]	2.7 (1.1)	**1.8** (0.8)	2.0 (1.2)	1.2 (0.9)	.009 (.006)	**.013** (.006)	**.066** (.006)	**.061** (.006)
Teacher Characteristics								
Teachers Interesting Share of time [0→1]	**-20.6** (5.1)	-3.8 (3.8)	**-25.0** (5.9)	**-9.4** (4.3)	**-.087** (.029)	**-.084** (.027)	.111 (.029)	**.096** (.029)
I don't feel close to any of my teachers	**3.7** (1.2)	0.1 (0.9)	**4.8** (1.4)	1.7 (1.0)	**.023** (.007)	**.023** (.006)	1.1 (0.5)	-0.2 (0.5)
Music Listened to the Most								
Rap & Hip-hop			**-14.4** (2.6)	0.3 (1.8)	.003 (.013)	-.017 (.011)	-.005 (.013)	**.026** (.012)
Pop			**7.3** (2.5)	0.7 (1.6)	.010 (.012)	.015 (.010)	.008 (.012)	**-.024** (.010)
Modern Rock			4.3 (2.4)	-0.4 (1.8)	.001 (.012)	-.006 (.011)	**-.033** (.012)	-.012 (.012)
Rhythm & Blues			4.8 (3.0)	2.4 (1.9)	-.033 (.015)	-.019 (.012)	.011 (.015)	-.003 (.013)
Classic Rock			0.5 (2.9)	-2.0 (2.5)	-.023 (.014)	-.016 (.016)	-.015 (.014)	-.008 (.016)
Dance & Techno			4.5 (3.0)	**6.0** (2.0)	-.017 (.015)	.008 (.013)	.015 (.015)	**.035** (.013)
Heavy Metal			**16.4** (2.9)	**22.2** (3.0)	.009 (.015)	.025 (.019)	**-.043** (.015)	.029 (.020)
Country			**23.1** (4.9)	**14.1** (2.3)	**.059** (.025)	.017 (.015)	.036 (.025)	**.064** (.016)
Salsa or Latin			-4.3 (4.6)	**6.5** (2.5)	.018 (.023)	-.023 (.016)	**.054** (.023)	**.069** (.017)
Jazz			-1.1 (3.2)	1.9 (2.8)	.014 (.016)	-.017 (.018)	.027 (.016)	.037 (.019)
Classical			**13.6** (3.8)	2.7 (2.6)	**-.036** (.018)	**-.040** (.016)	.010 (.018)	.027 (.017)
Musicals			**21.2** (6.1)	**7.1** (2.9)	.016 (.030)	.010 (.018)	.022 (.030)	.011 (.019)
19 variables describing SES, ethnicity and family structure	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Mean Dependent Var.	87	55.7	85.7	52.2	2.044	1.895	2.193	2.175
Std. Error of Estimate	143	104	140	100	.692	.637	.695	.670
R Square	.055	.055	.072	.062	.040	.034	.118	.159
# of Observations	24,589	26,143	17,925	19,259	17,871	19,387	17,889	19,421

Coefficients that are significantly different from zero at the 5 percent level are in **bold**.

As the share of homework a student completes goes up, fewer students report that 'Friends want me to work harder than I do' and more students report that 'Friends do not want me to study harder than they do.'

Students who spend a good deal of time 'watching TV, playing video games and listening to music alone or with family' also get harassed more than students who spend a lot of time in extracurricular activities and socializing. Hours spent working for pay is also associated with a higher likelihood of harassment but the effect is much smaller than the effect of an hour spent in solitary activities at home. Time spent in extra-curricular activities has no statistically significant effect on harassment. Time spent hanging out has no significant effect on the harassment of girls but it has a large negative effect on harassment of boys. This pattern is all the more remarkable when one considers that students who spend more hours socializing or in extra-curricular activities have a longer exposure to peers who might harass them. Harassment is positively correlated with time spent at home alone and negatively correlated with time spent with peers for two reasons. Spending more time with peers makes one more popular and lowers the hourly risk of harassment. Unpopular students try to avoid being harassed by heading for home as soon as school lets out.

Family Background: In the model predicting harassment of males, the fourth most important predictor was the number of books in the home, a traditional measure of family cultural capital. Holding time use, crowd membership indicators and other measures of family background constant, boys from families with over 250 books in the home experience 38 percent more harassment than boys from homes with fewer than 10 books. Girls from homes with over 250 books experience 19 percent more harassment than girls from families with hardly any books. Having personal computers in the home is associated with lower rates of harassment. Parent's education has almost no relationship with harassment. Hispanic and Asian students experience about 20 percent less peer harassment than white students. Black females experience 10 to 20 percent more harassment than white females. When music preferences are not controlled, black males are less harassed than white males. When music

preferences are controlled, black males experience about 8 percent more harassment than white males who like the same music.

Beliefs that the Academic side of school is a Rat Race: The theory implies that anti-learning norms are more likely to develop among students when they perceive academic classrooms to be zero sum games that pick winners and losers but cannot make everyone better off. As predicted by the theory the belief that school is a rat race is a major stimulus to peer harassment. Males (females) who strongly agree that "if others study hard, it is harder for me to get good grades," experience 50 percent (34 percent) more harassment than those who strongly disagree. This single question is the third most powerful predictor of the likelihood of peer harassment--after academic ability and time spent in solitary learning activities at home. The school is a rat race belief is also the single most powerful predictor of our most direct measure of peer pressure against studying--student reports that "My friends DO NOT want me to study harder than they do."

Student-Teacher Relationships: Is there anything schools can do to reduce peer harassment and develop a positive supportive learning culture among students? Yes there is. Students who find teachers interesting experience less peer harassment. In addition males who said they "don't feel close to any of their teachers this year" get harassed a lot more than those who said they have a close relationship with a teacher. These results suggest that the effort to convince students that 'teachers are not your friend' does not succeed everywhere and that good teaching may be able to reduce the peer harassment at least to some degree.

IV. Testing the Theory of Nerd-Slacker Harassment in data from the First Wave of the Educational Excellence Alliance's Survey of Student Culture

To conduct some additional tests of the theory, I estimated ordinary least squares models predicting three outcomes in EEA survey data collected before January 2000:

- The incidence and extent of insults, teasing and verbal harassment by peers.

- NOTRY--The incidence and frequency of students saying they did not try hard on a test or project because they were afraid of what their friends might think.
- Classroom Engagement—An index comprised of questions about paying attention in class, contributing to classroom discussion and not letting your mind wander.

The purpose was to assess how much of the variance of peer harassment and engagement can be predicted by the racial and socio-economic character of the school and the background characteristics of the student and how much of the variance can be predicted by the attitudes and culture of the school and of the student's clique.

Control Variables: The controls for student background include gender, grade in school, a dummy variable for 7th or 8th grade, parent's education, number of siblings, living in a single-parent family, self reported ability, dummy variables for being African-American, Hispanic, Asian, Native American, mixed ethnicity and did not answer questions about race. The controls for the characteristics of the school were the school mean for parents' education, the proportion of the students at the school living in single parent families, the proportion of students African-American, the proportion Hispanic, the proportion Asian, the mean self reported ability of the students at the school, the school mean for the school on the 'teachers are demanding' index and the school mean on the 'teachers are interesting and motivating' index. School means on the 'parents motivate me' index and 'future extrinsic motivation' index were included in the models predicting study effort and engagement. Appendix D provides a list of the items included in each of the attitude indices. The curriculum track pursued by the student was controlled by including: the number of accelerated courses taken in middle school, the share of this semester's courses that were honors or AP courses, the share of courses that were 'basic' (or local in New York State parlance), the share of courses that were heterogeneous or mixed [the share of college prep courses was the excluded category] and the number of study halls taken. In order to prevent overestimation of the effects of clique norms and attitudes, we included controls for the student's self reported motivation: 'intrinsic motivation,' 'future extrinsic motivation' and 'parents motivate me' index.[41]

Hypotheses: Our primary focus is the effect of student culture. Students are exposed to both a school culture that is specific to their grade and their gender and to the attitudes and norms of their clique of close friends. We attempted to measure both. An overall pro-learning school environment index was constructed by taking an average of the intrinsic motivation scale, the positive peer pressure scale and the 'it's annoying when students joke around scale' for the student's grade, gender and school. We expect a pro-learning environment to be associated with less harassment, fewer students saying they do not try and greater engagement in school. We also calculated a grade/gender/school average of answers to "If others study hard, it is harder for me to get good grades." This variable measures the belief within the student body that they are engaged in a zero sum competition with their classmates. We expect it to have a negative relationship with engagement and a positive relationship with harassment and NOTRY. The rest of the student culture variables are measured at the clique level. These variables are scales constructed by averaging normalized answers to 2 to 6 questions about the attitudes and norms of friends. Scales were developed for negative peer pressure, positive peer pressure, annoyed when others joke around in class, the leading crowd in middle school was anti-learning and the leading crowd was pro-learning. Our theory predicts that negative peer pressure and anti-learning leading crowd will have a positive relationship with harassment and NOTRY and a negative relationship with engagement. We also predict that positive peer pressure, the annoyed when others joke around scale and pro-learning leading crowd will have a positive relationship with engagement. The final peer pressure variable assesses the student's belief about whether it's harder for them to get good grades when others study hard. We expect this to have a positive relationship with harassment and NOTRY and a negative effect on engagement.

The final set of peer culture variables measure the deviation from the school wide norm of the student's GPA and his clique's academic commitment—positive peer pressure, annoyed when others joke around scale and negative peer pressure (reflected). We expect students who significantly deviate from school norms on these variables will experience more

harassment. We have no reason to expect clique academic commitment variables to have a curvilinear effect on the other outcomes studied, so squared deviations from school norms were not entered in any of the other models. [42]

Table 2 presents the standardized regression coefficients from the models predicting all six outcomes. A '+' to the right of a coefficient implies that the effect is not statistically significant (at the 5 percent level on a two tail test). Column 7 of the table gives the standard deviations (SD) of independent and dependent variables. Unstandardized coefficients can be calculated by multiplying by the SD of the dependent variable, and dividing by the SD of the independent variable.

Table 2
Harassment, Study Effort and Grades in School
[Beta Coefficients]

	Teased Verbal Harass-ment	**No Try Because of Friends**	**Engage-ment in Class**	**SD of Indep Var.**
Study Behavior –Endogenous				
Verbal Harassment (SqRt #)	***	**.089**	**-.051**	3.51
No Try bec. Friends-(SqRt #)	---	***	---	2.46
Engagement in Class	---	---	***	1.00
Peer Pressure--Exogenous				
A Hard to get if Others Study	.043	**.070**	-.047	.681
Hard if others study (sch avg)	---	.022	-.001+	.118
Good Student Leading Crowd	---	---	.003+	
Bad Students Leading Crowd	**.071**	---	-.021	.99
Negative Peer Pressure	**.100**	**.160**	**-.065**	1.00
Positive Peer Pressure	.012+	**.081**	**.069**	1.00
Annoyed when oth. Disrupt	.008+	.015	**.188**	1.00
(Neg. Pressure - ScMn) SQ	.021	---	----	1.51
(Pos. Pressure-- Sc Mn) SQ	.024	---	----	1.79
(Annoyed – Sc Mn) SQ	**.055**	---	---	1.32
(GPA –3.0) SQ	.027	---	---	1.28
Pro Learning Norm-(ScMn)	-.014+	.027	.013+	.665
Student Choice of Courses				
# Accelerated Courses	.025	.001+	-.023	1.69
% Honors courses	.017	-.025	.013+	.341
% Basic Courses	-.002+	.021	-.025	.369
% Heterogeneous Classes	.006+	.001+	.003+	.307
# of Study Halls	.023	-.017	---	3.42
School Characteristics				
Middle School	.024	.026	.017+	.320
Grade in School	.000+	-.016+	**-.067**	.980
All Teacher Good (Sc. mn)	-.023	-.002+	.044	.251
All Tch Demanding (Sc mn)	-.022	.008+	**.050**	.192
Parents Motivate (Sc Mn)	---	-.022	---	
Future Extrinsic (Sc mn)	---	.000+	-.004+	.218

Table 2—continued	**Teased Verbal Harass-ment**	**No Try Because of Friends**	**Engage-ment in Class**	**SD of Indep Var.**
Student's Attitudes				
Intrinsic Motivation Index	-.014	.001+	**.292**	1.00
Future Extrinsic Motivation	-.011	-.031	**.090**	1.02
Parents Motivate Student	**.055**	.007+	-.004	1.00
Characteristics of Student				
Self Reported Ability	-.002+	**-.081**	**.114**	1.97
Rept. Ability (Sch mean)	.018+	.008+	.003+	.419
Male	**.075**	**.063**	-.004+	.498
Parent's Schooling	.010+	.002+	.040	2.89
Parent Schooling (Sch Mn)	.018+	-.023	-.002+	1.19
Single Parent Family	.019	.020	-.025	.408
% Single Parent (Sch Mn)	-.023+	.013+	-.002+	.122
# of Siblings	.001+	.033	-.025	1.50
Black	.007+	.044	-.027	.316
Hispanic	-.021	.011+	-.017	.192
Asian	-.030	.029	-.011	.210
Native American	.015	.023	-.020	.075
%Black (sch mean)	.011+	-.047	-.039	.172
% Hispanic (sch mean)	.000+	.007+	-.003+	.073
% Asian (sch mean)	-.022	-.011+	.037	.061
Mean Dependent Var.	3.425	.849	.017	
Std Deviation of Dep. Var.	3.513	2.461	1.01	
RMSE	3.374	2.21	.817	
R SQ	.0624	.0874	.3031	
Number of Observations	24,772	27,190	26,313	
			E	

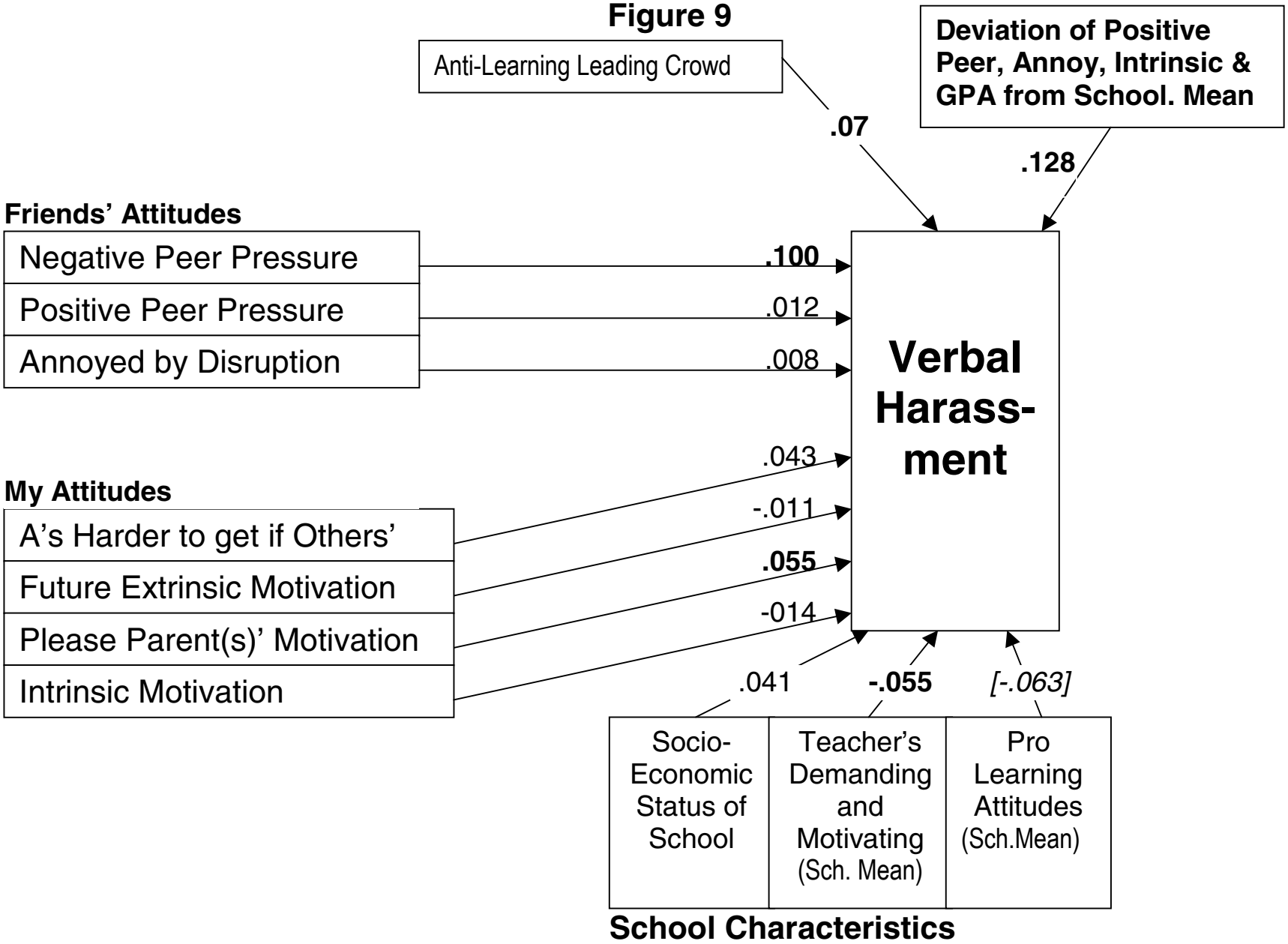
Analysis of data on 35,604 students from 134 schools located in the Northeast that are members of the Educational Excellence Alliance. Table documented in Insult fin. lst. All of the models included three variables that were not shown: individual is of mixed race, data on race is missing, data on family status is missing. The model predicting harassment also included an interaction of middle school with Anti-learning Leading Crowd and with accelerated courses. A + to the right of a coefficient indicates it is NOT significant at the 5% level on a two tail test.

Results—Peer Harassment: We calculated that the average annual number of incidents of verbal harassment 'to your face' was about 23 per student. 'Behind your back' insults were more common: 34 per year per student. Boys experienced more harassment than girls. Hispanics and Asians experienced less than whites and African Americans. Children of well-educated parents, students in high SES schools and students in middle schools were more likely to be insulted and teased. These demographic characteristics, however, explained only 2.1 percent of the variance.

When we added student attitude and peer pressure variables, the variance explained by the model tripled but remained rather low at 6.2 percent. Figure 9 presents the main findings

from our analysis of the attitudinal and cultural predictors of peer harassment. Standardized regression coefficients greater than .05 are in bold print. Attitudes and beliefs of the students are arrayed on the left underneath the norms of the student's clique. School characteristics are arrayed along the bottom. The school SES effect reported there is the sum of the beta coefficient on the parent's schooling and Beta coefficient for the proportion of students living with both parents. The effect reported for teachers is the sum of the Beta coefficients on the teachers are demanding and the teachers are motivating index. When we report the effect of a school average of student attitude scales the effect reported [in brackets in this case] is what would happen to the dependent variable in standard deviation units if attitude in the school/gender/grade went up by one student standard deviation.[43]

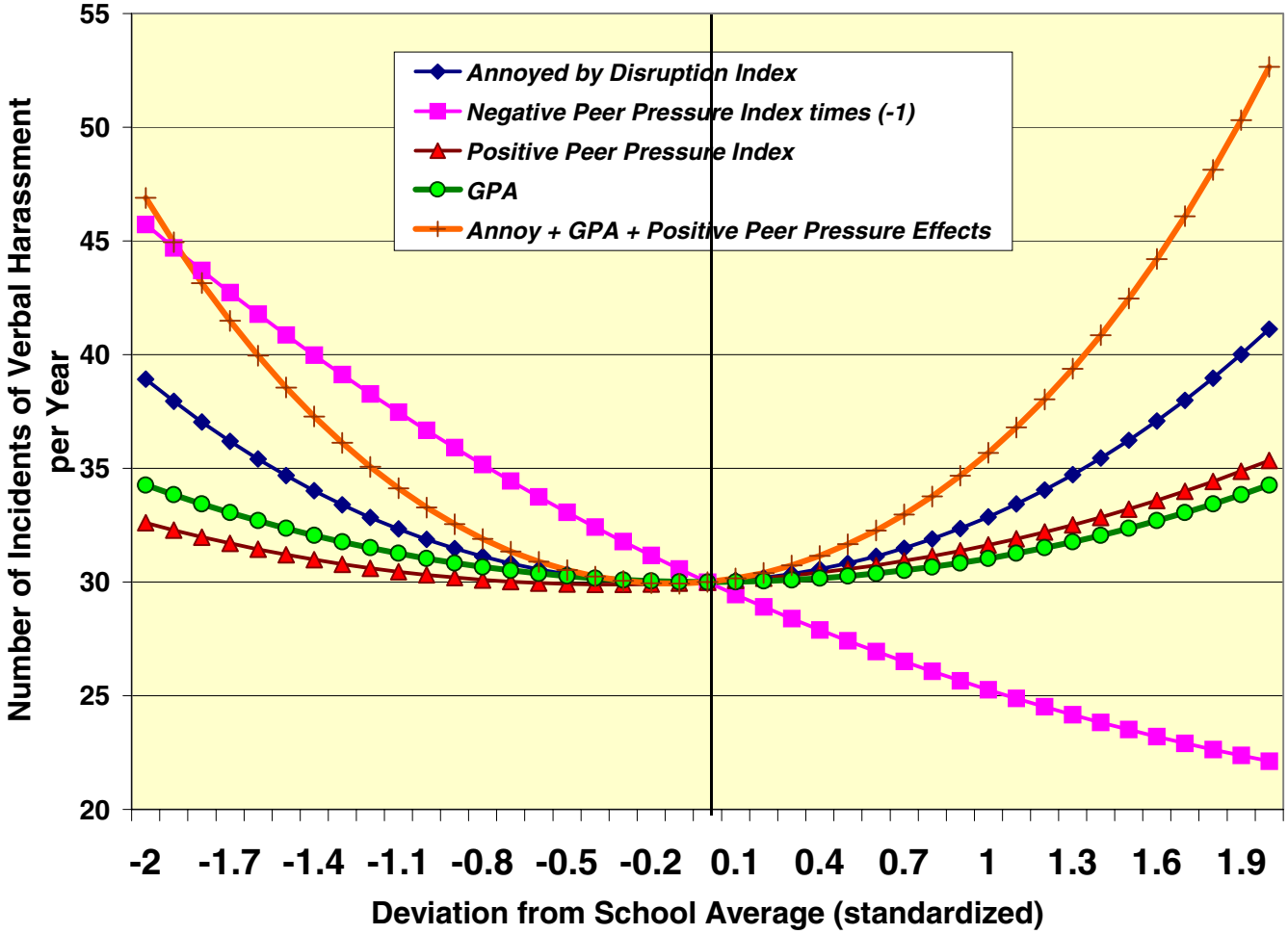
Figure 9


Anti-Learning Leading Crowd
.07
Deviation of Positive Peer, Annoy, Intrinsic & GPA from School. Mean
.128
Friends' Attitudes
Negative Peer Pressure
Positive Peer Pressure
Annoyed by Disruption
.100
.012
.008
Verbal Harass-ment
.043
-.011
.055
-014
My Attitudes
A's Harder to get if Others'
Future Extrinsic Motivation
Please Parent(s)' Motivation
Intrinsic Motivation
.041
-.055
[-.063]
Socio-Economic Status of School
Teacher's Demanding and Motivating (Sch. Mean)
Pro Learning Attitudes (Sch.Mean)
School Characteristics

Most of our hypotheses are supported. The incidence of harassment was lower in schools with demanding and motivating teachers. It was greater for honors students, for students with many study halls and for students that took accelerated courses in middle school. Rates of peer harassment were greater for students who reported an anti-learning leading crowd in middle school and for students who believed they were being graded on a curve. Students high on the negative peer pressure index [one of whose items is 'my friends make fun of those who try to do real well in school'] were also harassed much more frequently (See figure 3). Compared to the baseline of incidence of 30 per year, students who were 1.5 SDs above the mean (93rd percentile) on the negative peer pressure index were harassed 41 times a year. Those hanging out in cliques that were 1.5 SDs below the mean on this scale were harassed only 24 times a year on average.

A GPA that was significantly above or below the school norm led to increased harassment. When a clique's commitment to academic achievement (positive peer pressure and annoyed when others joke around scales) deviates significantly from the school norm, its members also experience more harassment. How strong is the pressure for conformity to school norms? Figure 10 presents a calculation of how much harassment increases as a student deviates from school norms on these four indices. We picked 30 insults a year of each kind as the baseline level of harassment received by students who were at the school mean on GPA, positive peer pressure and 'annoyed when others joke around.' Holding negative peer pressure constant, students who were 1.5 SDs above the mean (93rd percentile) on GPA and the commitment indices were harassed 43 times a year, a 42 percent increase from the baseline student. Those hanging out in cliques that were 1.5 SDs below the school mean on GPA and academic commitment were harassed about 39 times a year a 30 percent increase over the baseline level

Fig. 10--Peer Harassment's Association with the Pro-Learning Attitudes of One's Clique

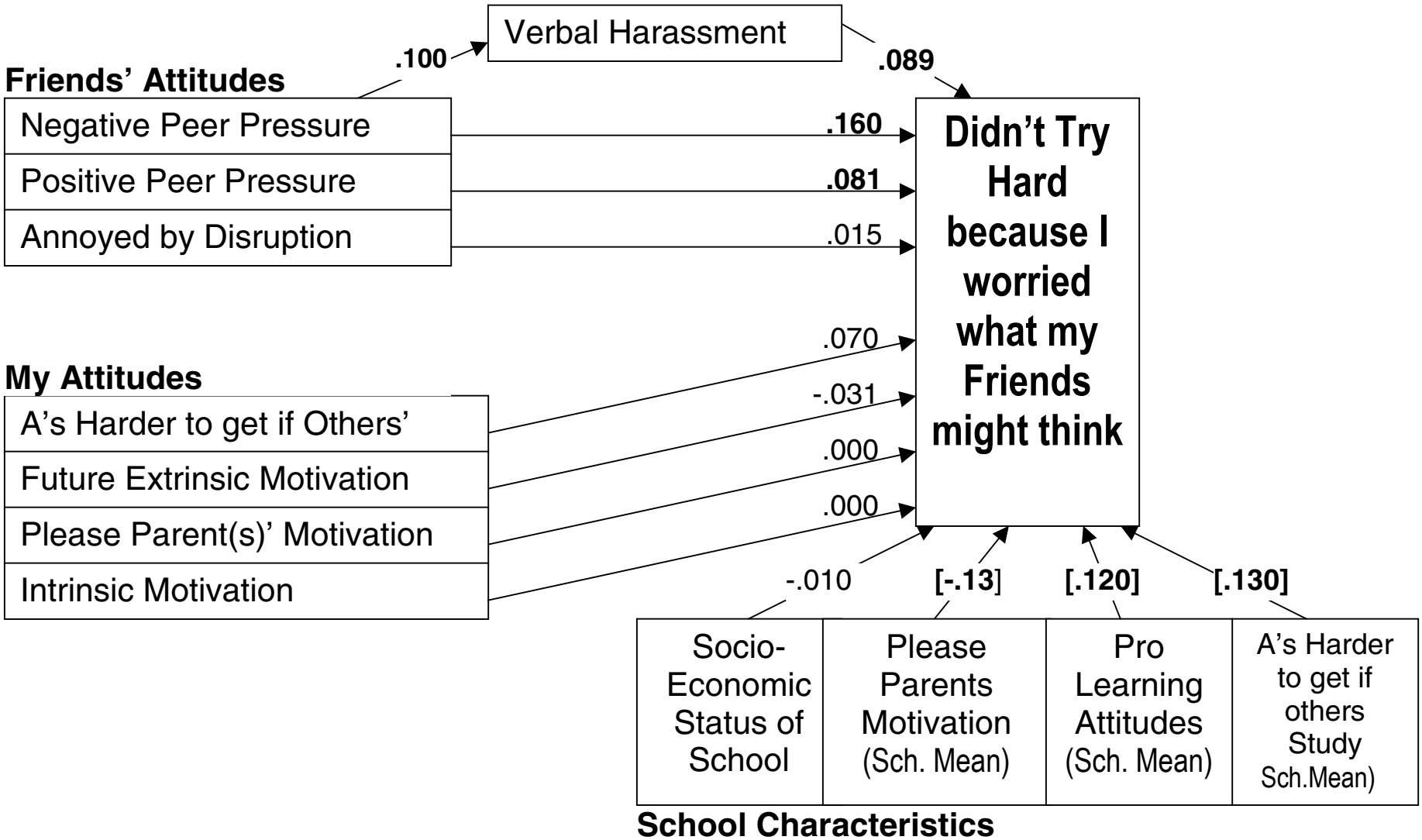


Results—Not Trying because of what friends might think: When directly asked whether "I didn't try as hard as I could in school because I worried about what my friends might think?", 80 percent said it had "never" happened. For those who said it had happened at least once, the number of instances was 28 per year on average. What are the characteristics of the students who report consciously reducing effort because of a fear of how friends might react? They are more likely to be middle school students, male, to be Native-American, Asian, Hispanic or African American, to live with only one parent, to have many siblings and to have

parents with less schooling. The incidence of NOTRY is also lower in high SES schools and schools with larger numbers of African-American students. These variables, however, explain only 2.3 percent of the variance of the square root of the frequency of not trying.

What are the effects of peer pressure and norms on not trying? When peer pressure variables are added to the model, 8.8 percent of the variance is explained. Figure 11 presents the main findings from our analysis of the determinants of not trying hard because of a fear of a negative reaction by friends. The most powerful determinant of not trying was being in a clique where negative peer pressure was strong. Not trying because of fear about how friends would react was higher for students who were frequently harassed and for students who believed that "If others study hard, it's harder for me to get good grades." Surprisingly, students in cliques with strong positive peer pressure were also more likely to report not trying, as were students in schools with strong pro-learning norms. Schools where many reported that studying hard was motivated by desire to please and impress parents had fewer instances of not trying. In addition, schools where many students believed they were being graded on a curve also had significantly higher incidence of not trying.

Figure 11

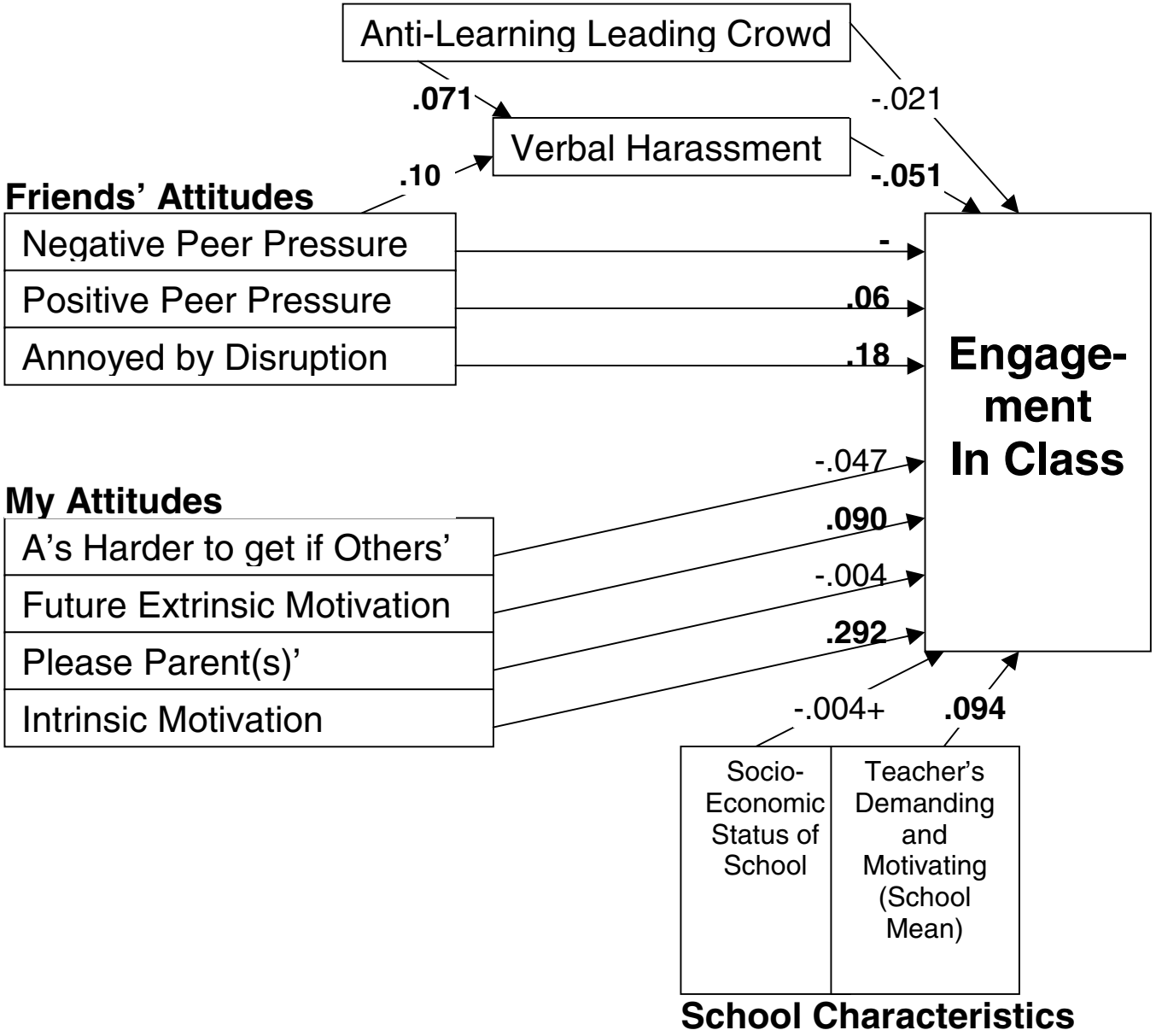

Verbal Harassment
.100
.089
Friends' Attitudes
Negative Peer Pressure
Positive Peer Pressure
Annoyed by Disruption
.160
.081
.015
Didn't Try Hard because I worried what my Friends might think
My Attitudes
A's Harder to get if Others'
Future Extrinsic Motivation
Please Parent(s)' Motivation
Intrinsic Motivation
.070
-.031
.000
.000
-.010
[-.13]
[.120]
[.130]
Socio-Economic Status of School
Please Parents Motivation (Sch. Mean)
Pro Learning Attitudes (Sch. Mean)
A's Harder to get if others Study Sch.Mean)
School Characteristics

Results—Classroom Engagement: Classroom engagement is lower for males, for students from single parent families, for students whose parents have limited amount of schooling and for students with many brothers and sisters. Holding school characteristics constant, African Americans, Hispanics and Asians have the same level of engagement as whites. Only Native American and mixed ethnicity students were significantly less engaged. The schools with the highest levels of engagement were schools that had large Asian, African-American and Hispanic minorities and schools serving the children of poorly educated parents. These findings suggest that disengagement from school is not a problem that is confined to minority communities and low income neighborhoods. Upscale suburban schools have just as bad and probably a worse case of the disease than other schools. These variables, however, explain only 7 percent of the variance of the engagement index.

When peer culture scales, attitudes and self reported ability are added to the regression, variance explained rises to 30.3 percent. Engagement is higher for more able students and lower for students in basic classes. It is higher in middle school and in the early grades of high school and in schools with motivating and demanding teachers. Figure 12 presents the main findings from our analysis of the effects of student motivation and peer pressure. Intrinsic motivation has a powerful positive effect on engagement as does future extrinsic motivation. Students who reported being motivated by the desire to impress their parents were not more engaged in class.

Peer pressure effects were also quite substantial. Students in cliques that were annoyed when others joked around in class were much more engaged. Positive peer pressure had the expected positive effect and negative peer pressure a negative effect. Engagement was lower for those who believed they were graded on a curve and for students who were frequently verbally harassed by peers. An anti-learning leading crowd in 7th grade was also associated with lower engagement.

Figure 12


Anti-Learning Leading Crowd
.071
-.021
Verbal Harassment
.10
-.051
Friends' Attitudes
Negative Peer Pressure
Positive Peer Pressure
Annoyed by Disruption
-
.06
.18
Engage-ment In Class
-.047
My Attitudes
A's Harder to get if Others'
Future Extrinsic Motivation
Please Parent(s)'
Intrinsic Motivation
.090
-.004
.292
-.004+
.094
Socio-Economic Status of School
Teacher's Demanding and Motivating (School Mean)
School Characteristics

V. Policy Speculations—Outside the Box Thinking about What happens Inside the Black Box

This paper addresses two of secondary education's most serious problems—peer abuse of weaker socially unskilled students and a peer culture that in most schools discourages many students from trying to be all that they can be academically. We have documented the two problems by reviewing ethnographies of secondary schools, by interviewing students in eight suburban high schools and by analyzing data from questionnaires completed by nearly 100,000 students. Grounded in these observations, we built a simple mathematical model of peer harassment and popularity and of the pressures for conformity that are created by the struggle for popularity. The theory and our data analysis suggest that while the two problems are related, solving one will not necessarily solve the other. 'Nerds' and 'Slackers' are just two of the many groups of outcasts in most secondary schools. If somehow it were cool to be a nerd, other groups would still be targeted for harassment, and the nerds would probably participate in the harassment along with everyone else. Nevertheless, the oppression that nerds experience sends powerful normative signals to other students in the school to withdraw from alliances with teachers and get with the program of becoming popular with peers. "Be like us," the leading crowds say. Spend your time socializing, do not "*study too hard*;" Value classmates for their athletic prowess and their attractiveness, not their interest in history or their accomplishments in science. Those who break the norms are harassed sometimes by leaders of the popular crowds but more frequently by student 'vigilantes' who aspire to be admitted to one of the leading crowds. Singling out a few nerds and slackers for harassment and social exclusion sends powerful normative signals to the rest of the student body about the behaviors that will make you unpopular.

At Newport Junction the popular students wanted an unpopular girl to stop *"constantly asking questions in class."* So they humiliated her by shouting, *'You're a loser, just shut up and get out of this class.'* The story of that incident must have traveled quickly around the school and deterred many others from speaking up in class.

What is it that the rest of the students so dislike about the students they outcast as nerds and geeks? They tell us it's the nerds' fault. They do not socialize much, "they say stupid things," they have geeky interests, they wear unstylish clothes, they are competitive about grades, they talk too much in class and they lack self-confidence. These indeed are the stereotypes. But, unlike the stereotype, the victims of nerd harassment are seldom geniuses with 140 IQs. They are more commonly students of average or below average ability whose inclination at the beginning of middle school was to try to do what teacher's want-- study hard and learn. They tend to lack self-confidence and to be younger, smaller and less aggressive than those not victimized. As one 8th grade boy put it: "They are nerdy. If you got someone who will fight, and you have someone who won't do anything, whom would you pick on?" [44] Nerds are identified in the first weeks of middle school. Once singled out, they are subjected to harassment intended *"to wear down your self-esteem (BYM)."* Is it any wonder that they lack self-esteem, that they leave school at 3:00 P.M. or that they hang out with other nerds?

William pleaded, "*Why can't anyone act themselves in school?"* Why did so many classmates participate in the humiliation of the Mels? Don Mertens' answer was "…in order to set themselves apart from the categorical identity [the Mels represented]."[45] Adolescents have developed a very efficient system of deterring students from violating peer norms. They see some classmates being humiliated daily and they desperately want to avoid that fate. That fear is sufficient to change even deeply held norms and behavioral patterns. But the system is completely out of control. The victim gets no hearing before a judge. Vigilantes act independently without knowing how much punishment their victim has already suffered. No one supervises the vigilantes who punish norm enforcers. They are not even motivated by a desire for justice. Their motivation is self-protection, and currying favor with the powerful. As so frequently happens when vigilantes enforce norms without due process, the effort to deter and punish norm violations spirals out of control, resulting in many injustices.

This phenomenon should not be ignored. Requiring youngsters to attend an institution where they are regularly bullied by their classmates is clearly unjust. While some parents respond by moving to another town or enrolling their child in a private school, most cannot afford such a response. The second reason why schools cannot ignore nerd harassment is that it poisons the pro-learning environment that educators are trying to establish. In the eyes of most students the nerds exemplify the "I trust my teacher to help me learn" attitude that prevails in most elementary school classrooms. The dominant middle school crowd is telling them that trusting teachers is baby stuff. It's 'us' versus 'them.' The complaint about Les was, *"He is more like a teacher's pet. He always hangs around teachers. That I don't like. I don't know how to say this but it looks like you look at teachers as your friends. They* [one's peers] *got to think that a teacher is not your friend."*

How can schools and teachers meet this challenge? Schools must vigorously defend the position that school is first and foremost about learning and students are expected to work hard. The EEA schools with the most demanding teachers had significantly lower levels of peer harassment and students studied together more frequently, were more engaged in class and did their homework more regularly. Schools high on the teachers are motivating index also had lower levels of harassment and higher levels of engagement and homework completion.

Kipp Academies: The first best solution to the problem is for teachers to take over normative leadership of the school and make working hard the norm. This is what they do at KIPP Academy middle schools.

> The cool kids in our school are kids who work hard, because we as adults have made sure that to be "in" you have to work hard. We have an extensive system of rewards and consequences that every teacher in every grade administers the exact same way. The consistency from classroom to classroom and across grade levels is the key, and it has helped us to establish that culture of hard work. We are all working together and have been successful because, to be frank, we haven't allowed kids, who in the past may have gotten away with not doing any work or who may have put other kids down for being nerdy or too

> studious, the opportunities to become "cool" or "in." Our discipline is firm; if you don't work hard you don't get to sit with your friends at lunch, go on field trips, participate in gym class, attend special events, etc., and we, the adults, are all on the same page with this. It's hard to set the norms when you are not the one participating. On the flip side, if you do work hard, then you will be rewarded in fun ways—pizza parties, skating trips, things like that. So, to have fun and fit in, kids must adapt, they must work hard. You're probably saying to yourself that this doesn't sound like your traditional middle school and why would any kid want to put in such hard work. But the kids love it here, because they are discovering that great things happen to people who work hard. And they want to be included… (Dean of Students of KIPP DC: KEY Academy, 2002).

KIPP academies are non-selective choice schools that run from 8:00 AM to 5:00 PM during the normal 180 day school year, have compulsory Saturday enrichment programs three times a month and a three week summer school. Kids commute from all over the city. During the summer prior to entering the school for the first time, new students spend a couple of weeks in skills building exercises, learning the KIPP culture and bonding with their future classmates and teachers. The goal is to develop the skills and knowledge necessary to gain admission to and succeed in a private or charter high school. Students are not competing against each other for a limited number of opportunities to go to a private or charter high school. If they achieve at the required level, they will all make it into good high schools. KIPP academies are islands of discipline and caring and demanding teachers in a sea of chaotic schools led by dispirited adults. Parents queue for a chance to enroll their child in one of these very demanding schools.

Regular Public Schools: However, when students and parents do not choose the middle school, establishing a strong adult dominated, academically focused student culture is more difficult. How do state policy makers get serious engagement with learning to be normative among students? Niebuhr's dictum provides us with a number of avenues. Leading crowds (and other crowds as well) can be counted on to promote norms that reflect their own interests. If the leading crowd is taking learning seriously, peer norms about the optimal level of academic

effort will shift up and the whole school will be pulled to a higher level. Thus, all of the instruments for persuading individuals to take on academic challenges and study harder—hiring competent and demanding teachers, state or departmental end-of-course exams, minimum competency exam graduation requirements, higher college admissions standards, increases in payoffs to schooling and learning, etc.—will have the same effects on peer norms that they have on the incentives faced by individuals.

College Completion as a Common Goal: Almost all middle school students aspire to go to college--even those with very poor basic skills.[46] Middle schools should encourage this universal aspiration by taking their students on trips to local colleges, briefing parents on financial aid options and inviting former students to talk about the enjoyable aspects of college life and the importance of studying in secondary school so that they are well prepared. Everyone should be presumed to have college as their goal, including children from very disadvantaged families. Many students do not realize that the academic foundation they are developing in high school is critical to success in college.[47] Once this mistaken belief is corrected, students will be more motivated to take demanding courses and study hard.[48]

Teachers should make a special effort to persuade the leaders of influential student crowds to set particularly demanding personal goals (eg. attending the state's top public university or a competitive private college). If the leadership and core members of the leading crowd are trying to get into competitive colleges, they will need to take honors classes and work hard in them. This will tend to make studying and contributing in class normative and will encourage other students to raise their aspirations and commitment to academics.

We Will All Succeed if We All Work Hard: We must recognize that an anti-learning peer culture is likely to develop if students perceive academic classrooms to be zero-sum games that pick winners and losers but cannot make everyone better off. The reality is quite the contrary. Learning generates positive real externalities not negative pecuniary externalities (as the focus on class rank suggests). Students and teachers, however, are not aware of recent research

establishing the importance of learning multipliers. The importance of positive learning externalities needs to be communicated to students, teachers and parents. The academic enterprise needs to be and to be perceived to be a positive sum game in which success by one individual helps others succeed. Teachers should not grade on a curve. Grades should be based on student effort (e.g. completing homework assignments), good discipline (not disrupting the learning of others) and absolute achievement (results of quizzes and tests). The school should not publish or call attention to class rank. Having course content assessed externally by examinations set by the state department of education or Advanced Placement program is also desirable.

Competitions between Schools in the Academic Arena: Band, choir, theater, cheerleading and athletic programs receive enthusiastic support from the community because these organizations represent the school to neighboring communities and student achievements in these arenas are visible to the community and rest of the student body. As James Coleman observed in 1961:

> "the athlete gains so much status...[because] he is doing something for the school... leading his team to victory, for it is a school victory.... The outstanding student, by contrast has few ways--if any--to bring glory to the school. His victories...are often at the expense of his classmates, who must work harder to keep up.[49]

Academic extra-curricular activities need to harness the energy and school spirit that inter-school rivalry and public performances generate. Individual states and foundations should establish inter-scholastic team competitions in academic subjects and for activities like debate, constructing robots and the stock market game. As many students as possible should participate, and all students who practice regularly should be given a valued role. This can be accomplished by arranging separate competitions for each grade, increasing the minimum size of teams and allowing schools to field larger teams or more than one team.[50] Academic teams should be celebrated in pep rallies, awards ceremonies, homecoming parades, trophy displays and local newspapers along with the school's sports teams. There should be a sixth grade team that begins training in the first week of middle school. The purpose of starting early is to encourage

the creation of large academically oriented friendship networks (where students like William and Les would find support), to give those groups a positive identity and accomplish this while the social order is still fluid.

No Pass-No Play: Eighty-five percent of high schools have a minimum GPA requirement for participation in interscholastic sports. A clean disciplinary record—eg. no drugs, alcohol or fights, etc.--is also typically required. These policies have both practical and symbolic effects. Academic support is offered to athletes who are struggling. Some athletes are induced to study harder. Others either avoid parties where drugs and alcohol will be consumed or attend without imbibing. Since athletes are the nucleus of the popular crowds of most schools, their behavior influences the behavior of everyone else. A third effect of these policies is on the makeup of the team. Students who are unable or unwilling to keep their average above the required minimum are either benched or cut from the team. The composition of the popular crowds changes and, as a result, the norms promoted by the leading crowds become more favorable to academic learning. Our final suggestion for school administrators, therefore, is to reinvigorate their no- pass-no-play policy and extend it to cheerleading and possibly to other high prestige extracurricular activities where students represent the school to surrounding communities.

The policy ideas just presented are a sample of the initiatives educators described to us when we asked them about their successful efforts to promote a pro-learning environment. The list is certainly not exhaustive and is intended to stimulate thinking about new initiatives. The research of Educational Excellence Alliance on how school policies influence peer culture is just beginning. There is great deal to be learned.

Appendix A: Characteristics of High Schools Studied

	Sex	% to College	% Poor	Income wealth Ratio	% Hisp	% Black	$ per student	Median Teacher Salary	H.S. Student Grade	% Regent Diploma
Boynton M.S. & Ithaca H.S.	M	88%	14 %	1.21	3	10	$10,400	$42,000	450	74
Harbor Edge H.S.	F	96%	4 %	1.59	6	1	$12,100	$70,000	430	64
Newport Junction H.S.	F	94%	2 %	1.87	10	7	$13,400	$65,000	260	80
Longview H.S.	F	88%	5 %	.88	4	1	$11,500	$80,000	1000	55
Madison H.S.	F	83%	4 %	.79	6	3	$10,700	-------	330	53
Lakeside H.S.	F, M	89%	1 %	2.54	10	3	$11,600	$59,000	70	65
Wittison H.S.	F	90%	6 %	2.10	3	1	$14,100	$71,000	80	67
Coso H.S.	F	83%	4 %	1.28	1	5	$ 9,000	$45,000	420	69
NY State Low Need Districts		92%	3 %	1.86	5	3	$12,500	$64,700	---	92
NY State Public School Average		78%	18 %	1.00	18	20	$ 9,800	$49,500	---	78

Appendix B
Assessment of Secondary School Student Culture

1. Which courses are you taking this semester? At what level?

	Advanced Placement/ Honors	College Prep/ Regents	Basic/ Local	Heterogeneous or Mixed	Does class meet more than 5 periods a week? YES
English	O	O	O	O	O
Social Studies	O	O	O	O	O
Foreign Language	O	O	O	O	O
Science	O	O	O	O	O
Mathematics	O	O	O	O	O

2. What grade are you in? O…7 O…8 O…9 O…10 O…11 O…12

3. Are you male or female? O…Female O…Male

4. How many free or study hall periods including lunch do you have per week?

   O…zero-2 O…3-4 O…5 O…6-7 O…8-9 O…10 O…11-13 O…14-15 O…16+

5. In middle school were you put in accelerated or advanced classes in any subject? [mark all that apply]

   O…No O…Yes in all classes O…Yes in math O…Yes in science O…Yes in other subjects

6. Everyone gets a poor grade sometimes. When you get a poor grade, which reason usually causes the poor grade? [Darken the most important ONE OR TWO choices.]

   O…I had bad luck O…I didn't work hard O…The teacher was unfair
   O…The class was hard O…I'm not good at this subject

7. How often…

	Never	Seldom	Fairly	Often	Usually	Always
do you really pay attention during class?	O	O	O	O	O	O
does your mind wander?	O	O	O	O	O	O
do you joke around during class?	O	O	O	O	O	O
do you contribute to class discussion?	O	O	O	O	O	O
do you do homework for one class in another?	O	O	O	O	O	O
**is what you're studying intrinsically interesting?	O	O	O	O	O	O
are students whose hands are not up called on?	O	O	O	O	O	O
are the slower students in the class called on?	O	O	O	O	O	O

8. When your teacher assigns homework, how much of the homework do you usually do? [Darken one choice for each class.]

	Homework is never assigned	None of it	Some of it	Most of it	All of it	I do more than is required
Math	O	O	O	O	O	O
English	O	O	O	O	O	O
Social Studies	O	O	O	O	O	O
Science	O	O	O	O	O	O

9. On weekdays after school, how many HOURS PER DAY:

	No Time	Half an Hour	1 Hour	2 Hours	3-4 Hours	5-7 Hours	8 or More Hours
are you studying and doing homework	O	O	O	O	O	O	O
are you watching TV or playing video games	O	O	O	O	O	O	O

10. How many hours do you typically study for an end of marking period exam in History ..... O ..... O ..... O ..... O ..... O ..... O ..... O

11. How many hours a WEEK do you get tutoring or extra academic help from teachers or older students during free periods or outside of school hours? ..... O ..... O ..... O ..... O ..... O ..... O ..... O

12. Have you attended summer school at any time since 5th grade? O...No O…Yes, once O…Yes, 2+ times
    If Yes, Why? O…Failed a course O…Get requirement out of the way O…For Fun O…To Catch up

13. What was your grade point average last semester?
    O…A O…A- O…B+ O…B O… B- O…C+ O…C O…C-/D+ O…D/D- O…F

14. How quickly do you learn things? [mark one]
    ..... O ..... O ..... O ..... O ..... O ..... O ..... O ..... O ..... O ..... O ..... O
    Slower than most Average Faster than anybody else

15. When you work real hard in school, which of the following reasons are most important for you? (ANSWER AS MANY AS APPLY TO YOU.)

O .....My parents put pressure on me.
O .....My friends put pressure on me.
O .....I don't want to embarrass my family.
O .....I want to learn the material.
O .....I want to keep up with my friends.
O .....The teacher demands it.
O .....Help me get a better job.
O .....To please or impress my parents.
O .....To please or impress my teacher.
O .....I need the grades to get into college.
O .....My teachers encourage me to work hard.
O .....The subject is interesting.

16. Think of the times you did not study for a test or did not complete homework during the last year. Which of the following reasons were most important? (ANSWER AS MANY AS APPLY TO YOU.)

O .....I could get a good grade without studying
O .....The assignment was boring or pointless
O .....I preferred to party or hang out with friends
O .....I didn't understand the material
O .....The assignment was too long and difficult
O .....I didn't care about the grade in that course
O .....No one to help me at home
O .....The teacher didn't care
O.....Not enough time because of work and/or school activities
O.....Teacher did not collect and grade homework.
O.....My friends wanted me to do something else
O.....Started too late, poor planning
O.....I disliked the teacher
O.....I got distracted at home
O.....I forgot the assignment
O.....The teacher was very disorganized

17. What is the highest level that you would like to go to in school? I would like to:

O .....Leave before graduating
O .....Finish high school
O .....2-year college degree
O.....4-year college degree
O.....4-yr college degree plus some further training
O.....Post Graduate degree (medical, law, Ph.D. MBA)

18. Indicate the HIGHEST level of education completed by each person. Mark one answer for each column.

	Mother/ Stepmother	Father/ Stepfather
Some or finish grade school	O	O
Some high school	O	O
Finished high school	O	O
Some college or 2-year degree	O	O
4-year college graduate	O	O
Some school beyond college	O	O
Professional or graduate degree	O	O
Don't know or not applicable	O	O

19. Do you agree or disagree with the following statements:

	Strongly Agree	Agree	Disagree	Strongly Disagree
My friends make fun of people who try to do real well in school	O	O	O	O
My friends joke around and annoy the teacher	O	O	O	O
To keep up with my friends, I have to work hard at my school work	O	O	O	O
Kids who study a lot, tend to be less popular	O	O	O	O
Studying a lot tends to make you less popular	O	O	O	O
My teachers maintain good discipline in the classroom	O	O	O	O
My teachers grade me fairly	O	O	O	O
Many of my courses are not challenging	O	O	O	O
**The stuff we learn in classes is interesting	O	O	O	O
**If I didn't need good grades, I'd put little effort into my classes	O	O	O	O
Too many students get away with being late & not doing their work	O	O	O	O
If others study hard, it is harder for me to get good grades	O	O	O	O
If most of the class did not understand a concept, some of my teachers do not put it on the test	O	O	O	O

We would like to ask about what your closest friends think and do. To help you answer these questions, create a list in your head of your six closest friends.

20. How many attended the same elementary school you did?

O…All O...Most O...Half O...A Few O…None

21. My friends think it is important for me to:

	Strongly Agree	Agree	Disagree	Strongly Disagree
Do well in science at school	O	O	O	O
Do well in Mathematics at school	O	O	O	O
Do well in English at school	O	O	O	O
Have time to have fun	O	O	O	O
Be good at sports	O	O	O	O
Be placed in the high achieving class	O	O	O	O

22. Do you think your friends would agree or disagree with the following statements:

	Strongly Agree	Agree	Disagree	Strongly Disagree
It's not cool to be competitive about grades	O	O	O	O
It's not cool to frequently volunteer answers or comments in class	O	O	O	O
It's not cool to study real hard for tests & quizzes	O	O	O	O
It's not cool to be enthusiastic about what you are learning in school	O	O	O	O
It's annoying when other students talk or joke around in class	O	O	O	O
It's annoying when students try to get teachers off track	O	O	O	O

23. How important do your friends think it is to:

	Very Important	Somewhat Important	Not too Important	Not at all Important
Study hard to get good grades	O	O	O	O
Talk/hang out with friends	O	O	O	O
To participate actively in class	O	O	O	O
Go to parties	O	O	O	O
Continue your education past high school	O	O	O	O
Go to one of the best colleges in the U.S	O	O	O	O

24. How often have each of these things happened so far in this school year?

	Almost every day	About once a week	Up to once a month	Never
My friends and I talked outside of class about things we learned in school	O	O	O	O
I didn't try as hard as I could at school because I worried about what my friends might think	O	O	O	O
My friends and I studied together (outside of class)	O	O	O	O
One of my friends was insulted or made fun of behind their back	O	O	O	O
I was insulted, teased or made fun of to my face	O	O	O	O
Do you think you were insulted or made fun of behind your back	O	O	O	O
My friends cut classes or skipped school	O	O	O	O
I copied homework from one of my friends	O	O	O	O

25. During the 1st year of middle or junior high school, the members of the most popular crowd [your gender] were: [mark all that apply]
O…Real Smart O…Attractive O…Funny O…Self confident O…Outgoing O....Tough
O…Cool clothes O…Very good in sports O...Attentive in class O...Not attentive in class
O...Worked hard to get good grades O…Made fun of those who studied a lot
O...Mostly from my elementary school O…Not from my elementary school

26. Which parent(s) or guardians do you live with during the school year? [mark all that apply]
O…My Mother O…Stepmother O…Other relative/Guardian or foster parent
O…My Father O…Stepfather O…Alone or with friends

27. What is your Race/Ethnicity? [mark all that apply] O….White O….Black O….Hispanic O….Asian O….Native American

28. Are any of your six closest friends of a different race/ethnicity than yourself? O. .Most O…Some O…None

29. How many brothers and sisters do you have? O…None O…1 O…2 O…3 O…4 O..5 or more

30. ***When you apply for jobs after leaving high school, do you expect employers to ask about your high school grades or ask to see a transcript? O…Never O…Seldom O…Sometimes O…Usually O…Always

[Students from New York, Massachusetts, New Jersey and Ohio should complete 31-34]

31. When did you first learn that graduating from high school depends on passing statewide exams/tests: i.e. NY Regents exams, Massachusetts 10th grade Comprehensive Assessment tests, New Jersey's Grade 11 Proficiency tests, or Ohio's 9th grade Proficiency Tests?
O…just now O…12th grade O…11th O…10th O…9th O…8th O…7th O…6th O…before 6th grade

32. Did your knowing this change anything? [mark all that apply] O...Changed nothing O..I study harder
O…I took a tougher course(s) O…I took an easier course(s) O…I was tutored O…I took extra course(s)

33. Which, if any, of these exams/tests have you failed? [mark all that apply] O.. None O…Math
O…English O…Science O….History O…Civics O….Writing O….Foreign Lang.
O…None taken

34. Which of the following happened as a result of failing the test(s)? [mark all that apply]
O .....I repeated the same course the next year
O .....I took a special course the next year
O .....I went to summer school
O .....I retook the test at the end of the summer
O .....I passed the test on one of the retakes.
O .....I do not think I will graduate
O .....I got extra help or tutoring after school or on weekends
O .....I got extra help or tutoring during school hours
O .....I studied harder the next year
O .....I retook the test the next year
O .....I haven't passed it yet.
O .....None of the above

Appendix C
Scales describing Student Motivation to do Well in School: How were they defined?

A number of summary indicators combining similar questions were defined to capture various aspects of student motivation to do well or try hard in school and to summarize student behavior and family background. Each of these variables is an average of the student's responses to related questions. Items from different questions with different response formats were often combined. Z scores were created by subtracting the mean 10th grade response of each component question from the student's individual response and then dividing by the 10th grade standard deviation for that question. A Z score measures the distance of the student's response from the mean 10th grade response in standard deviation units. The SAS mean command was used to average the Z-scores from related questions creating an index variable for each type of motivation. If an individual item was not available, we used the other standardized variables to create the average. In order to make the variables easier to understand, each index was divided by its standard deviation to create a standardized variable with a mean of zero and a standard deviation of one. A one-unit change in the motivation indexes, therefore, is equivalent to a one standard deviation change in the scale. A movement of one standard deviation means one has moved from say the 50th percentile of a normal distribution to about the 84th percentile or from the 84th percentile to the 97.7th percentile.

INTRINSIC MOTIVATION-- This variable *INTRINM2* is a standardized index obtained by combining several of the student attitude questions ("I find what I learn in school intrinsically interesting" *(_9intere*), Q17--"I work hard because I want to learn the material" (*wkhdd*), Q17-"I work hard because the subject is interesting"(*wkhdl*)) and (-1) times Q21-"If I didn't need the grades, I would put little effort into my classes.".

The average value of *_9intere* is 3.199 (standard deviation = 1.237), meaning that most students claim that what they study is intrinsically interesting a "fair" amount of the time. The average response is closer to "fair," but lies in between "fair" and "often."

The average value of *wkhdd* is .457; therefore 46% of students say they work hard because they want to learn the material.

The average value of *wkhdl* is .414; therefore 41% of students say they work hard because the subject is interesting.

The average value of gni21j is 1.50. About half of students say they would study less if they did not need the grades.

PARENTAL MOTIVATION-- Another motivation for students to do well in school is their parents. The variable *PARENTMV* indicates whether students are motivated by their parents (I work hard to please my parents (*whhdh*), I work hard because my parents put pressure on me (*wkhda*)).

The average value of *wkhdh* is .554; therefore 55% of students claim they work hard in order to please their parents.

The average value of *wkhda* is .435; therefore 43% of students claim they work hard because their parents put pressure on them.

Parental motivation variables are negatively correlated with intrinsic motivation variables and positively correlated with future motivation variables and positive peer motivation variables. Parental pressure to work hard is not related to friends thinking its important to do well in math, science, and English, and negatively correlated with friends thinking its important to study and get good grades). This suggests that parents may increase their pressure to work hard in school when they perceive their children to have poor study habits or friends who are bad role models.

POSITIVE PEER MOTIVATION—*PPEERMV*-- Positive peer motivation to do well is indicated by responses to the following questions:
wkhdb—Q17-*"I work hard because my friends put pressure on me",*
wkhde—Q17-"*I work hard because I want to keep up with my friends"*
dwsci23a—a 0 to 3 scale for "*my friends think it is important for me to do well in science at school",*
dwmat23b—a 0 to 3 scale for "*my friends think it is important for me to do well in math at school",*
dweng23c—a 0 to 3 scale for "*my friends think it is important for me to do well in English at school"*,
hitrk23—a 0 to 3 scale for "*my friends think it is important for me to be placed in the high achieving class*", and
frstu25a—a 0 to 3 scale for "*my friends think it is important to study hard to get good grades*."

The average value of *wkhdb* is .051; only 5% of students claim they work hard because their friends put pressure on them.
The average value of *wkhde* is .204; only 20% of students claim they work hard to keep up with their friends .
The mean of *frstu25a* is 2.26, indicating that their friends think studying is somewhere between "somewhat important" and "very important" in the given range of responses. The mean is closer to "somewhat important." (s = .725).

Annoyed by Disruptions----*ANNOYDV* is a normalized variable averaging normalized answers to the two questions about how annoying it is when other students sidetrack the teacher or joke around in class.
Anjok24e-- a 0 to 3 scale for the agree /disagree question *'It's annoying when other students talk or joke around in class?'*
Anoft24f--- a 0 to 3 scale for the agree /disagree question *'It's annoying when other students try to get the teacher off track?'*

NEGATIVE PEER MOTIVATION----"*NPEERMV3*" Normalized index indicating peer influence to not do well in school. It is constructed from the following questions:
funof21a—a 0 to 3 scale for "*my friends make fun of people who try to do real well in school,*"
lespo21d—a 0 to 3 scale for "*kids who study a lot tend to be less popular*,"
mkpop21e—a 0 to 3 scale for "*studying a lot tends to make you less popular,*" and
ncvol24b—a 0 to 3 scale derived from *"It's not cool to frequently volunteer answers or comments in class."*
ncstu24c—a 0 to 3 scale for *"It's not cool to study real hard for tests and quizzes.';* and
ncint24d—a 0 to 3 scale for *"It's not cool to be enthusiastic about what you are learning in school.'*

The negative peer motivation variables are all positively correlated with each other. The strongest relationships are between "studying makes you less popular" and "kids who study tend to be less popular" (r = .667). Negative peer motivation variables are negatively related to intrinsic motivation and positive peer motivation variables, and unrelated to parent motivation variables. These variables are also negatively related to all the parent motivation variables (although the negative relationship between "studying tends to make you less popular" and working hard to get a better job is insignificant).

FUTURE MOTIVATION—*FUTUREMV:* Some students are motivated to do well in school by the desire for a good job or college admission. This type of motivation is measured by the variable *FUTUREMV*, which averages the responses to two questions:
wkhdg—"*I work hard to help me get a better job"* and
wkhdj—"*I work hard because I need the grades to get into college*."

On average, 58% of students say they work hard in order to get a better job in the future. 79% of students, on average, say they work hard because they need good grades to get into college.

Peer Culture Indices for the first year of Middle School

Two indices were created from Question 27 about the characteristics of the students in the most popular crowd in the first year of middle school. The 'standardized variables referred to below have a mean of zero and a standard deviation of 1.

gdstd7dv is a standardized variable measuring the proportion of the three positive study orientation traits that were selected as characteristic of the most popular students at the beginning of middle school. The three items in the index were "*real smart", "attentive in class"* and *"worked hard to get good grades."*

bdstd7dv is a standardized variable measuring the proportion of the two anti-study traits that were selected as characteristic of the most popular students at the beginning of middle school. The two items in the index were *"not attentive in class"* and *"made fun of those who studied a lot."*

2.) Behavior/Effort at School

ENGAGEMENT-- The variable *ENGAGEMT* captures a student's attitude and behavior while in school. A high value for this variable indicates that a student often: pays attention in class *(_9attend*), rarely or never has a wandering mind (*_9wander* multiplied by negative one in the averaging process to change the direction of the response), rarely or never jokes around in class *(_9joke* multiplied by negative one to change the direction), often contributes to class discussion (*_9discuss*) and rarely or never does homework for one class in another (*_9otherhw* multiplied by negative one to change the direction of response). This variable was created in the same way as the motivation variables, so it's mean is zero and its standard deviation is one.

The average response for *_9attend* is 4.617; kids are somewhere between "often" and "usually" with respect to how often they really pay attention in class. (s = 1.01)
The average response for *_9wander* is 3.193; ' minds "fairly" often wander in class. (s = 1.279).
The average response for *_9joke* is 2.839; students "fairly" often joke around in class. (s = 1.321)
The average response for *_9discuss* is 4.184; students "often" contribute to class discussion. (s = 1.33)
The average response for *_9otherhw* is 3.199; students "fairly" often do homework for one class in another. (s = 1.237).

All of the items in the engagement scale are correlated in the expected directions.

Variables based on Question 26

We dealt with students blowing off question 26 by giving the same frequency for all items in Q26 by treating answers as missing if the same response was given for all eight items. This eliminated 781responses to these questions.

NOTRYSQR is the SQUARE ROOT OF THE NUMBER OF TIMES IN THE LAST YEAR THE RESPONDENT DID NOT TRY BECAUSE OF WHAT HIS FRIENDS MIGHT THINK. Based on: *Notry26b—"I didn't try as hard as I could at school because of what my friends might think."*
It is scored a '0' for "never," '5' for 'up to once a month,' 40 for "about once a week' and to '160' for "almost every day." Then the square root is taken.

INSSQR is the SQUARE ROOT OF THE NUMBER OF INSULTS THE STUDENT EXPERIENCED IN THE LAST YEAR. It is based on two questions scored from a '0' for "never," 5 for 'up to once a month,' 40 for "about once a week' and to '160' for "almost every day" :
Insuf26e— "*How often…'I was insulted, teased or made fun of to my face?'*
Insub26f— "*How often…'do you think you were insulted or made fun of behind your back?'*
First the square root was taken of each variable. Then a weighted average was calculated with a .6 weight assigned to insults to your face and a .4 weight for Insults behind your back.

STUTLKQR measures the frequency of students studying together (outside of school) or talking with friends about what was learned in school. It is based on two questions scored from a '0' for "never," 5 for 'up to once a month,' 40 for "about once a week' and to '160' for "almost every day"
Talkc26a—"My friends and I talked outside of school about what we learned at school."
Studt26c----" My friends and I studied together (outside of class)"
The square root was taken of each variable first and then they were averaged.

Indicators of Student Time Use

Hwkavg is an index of the average share of assigned homework in four core subjects that students are actually doing. "None of it" was assigned a value of 0, "All of it" = 1, "Some of it" = .333, "Most of it" = .67 and "More than required" = 1.33. On this scale, {*HWKMATH, HWKENG, HWKSOSC, HWKSCI HWKAVG}* the index had a mean of .81 for all EEA schools.

Hmwkhr is the average number of hours per day students report doing homework.
tvhrday is the average number of hours per day that students report watching TV.

Family Background Indicators
edpar is the average number of years of schooling of the student's two parents. (15.16 yrs).
MEDPAR is the mean of EDPAR for the grade/gender and school
afamidx is the mean proportion single parents for the grade/gender and school.

Appendix Table D—Means & Standard Deviations
Second Wave of the EEA Survey of Student Culture

	Male		**Female**	
	Mean	Std. Dev.	Mean	Std. Dev.
Belief School is Zero-Sum				
If others study hard, it's harder to get A's [1→ 4]	1.98	0.77	1.92	0.70
Study Effort & Time Use				
Share Homework done [0→1.25]	.763	.241	.818	.205
Square of (Share of Homework done - .78)	.059	.0917	.044	.0605
Studying (hrs/day)	1.60	1.34	2.1	1.5
SQ of (Study hr – 1.87)	1.87	4.00	2.25	4.77
TV, listening to music, video games (hrs/ day)	2.51	2.01	2.22	1.98
Work for Pay (hrs/day)	1.12	1.99	1.04	1.89
Extra-curricular Activity (hrs/day)	1.87	1.71	1.57	1.50
Hanging out (hrs/day)	1.70	1.77	1.93	1.83
High Academic Achievement				
In Gifted Program	16.4	37.0	16.8	37.4
Tutored Other Students	18.4	38.8	27.1	44.5
Took Theater Course	15.0	35.7	22.9	42.0
Took Band/Orchestra Course	36.1	48.0	38.6	48.7
# of Accelerated Courses in middle school	1.0	1.3	1.0	1.3
Taking one or more honors or AP course	0.51	0.50	0.543	0.498
Taking at least one AP course	0.09	0.29	0.107	0.309
# of Honors & AP courses	1.26	1.59	1.37	1.63
Low Academic Achievement				
In Special Education	0.06	0.24	0.038	0.19
Took Remedial Course	0.26	0.44	0.243	0.429
Took a Blue Collar Vocational course	0.12	0.32	0.046	0.21
Friends College Goals				
Friends think it's important to go to one of the best colleges	-.035	1.013	.047	.950
Ability- Less visible to others				
Share of Teachers' lessons completely understood [0 to 1]	.685	.248	.672	.241
How quickly I Learn Things? [0→1]	.706	.187	.669	.171
Intrinsic Motivation				
Like Learning [SD=1]	-0.0045	1.03	0.025	0.922

Appendix Table A (cont)—2nd Wave EEA Survey

	Male		Female	
	Mean	Std. Dev.	Mean	Std. Dev.
Teacher Characteristics				
Teachers are Interesting Share of time [0→1]	.505	.214	.512	.202
I don't feel close to any of my teachers [1→ 4]	2.34	0.83	2.30	0.79
Music Listened to the Most				
Rap & Hip-hop	.684	46.5	65.1	47.7
Pop	27.0	44.4	56.5	49.6
Modern Rock	36.1	48.0	28.2	45.0
Rhythm & Blues	18.5	38.8	22.9	42.1
Classic Rock	20.0	40.0	11.1	31.5
Dance & Techno	15.1	35.8	16.5	37.1
Heavy Metal	17.9	38.4	6.69	25.0
Country	5.3	22.4	11.3	31.7
Salsa or Latin	7.6	26.5	11.9	32.4
Jazz	14.6	35.3	7.9	26.9
Classical	11.5	31.9	10.2	30.3
Musicals	3.6	18.5	7.7	26.6
School Characteristics				
Grade in school	9.32	1.52	9.34	1.53
Middle School Grades (6 to 9)	.287	.452	.287	.452
Demographic Characteristics				
African-American	22.0	41.4	22.9	42.0
Hispanic	7.9	27.0	7.6	26.5
Asian	8.0	27.1	7.7	26.7
More Than One Race	3.2	17.6	3.3	17.9
Parents speak a Foreign Language at Home	1.5	3.4	1.5	3.3
Living in Single Parent Household	0.039	0.19	0.031	0.17
Blended Family	0.66	0.25	0.08	0.27
Number of Siblings	2.0	1.4	2.0	1.4
Parent's Education	5.1	1.5	5.0	1.5
Father's Education	5.1	1.6	5.1	1.6
D30sipar	0.21	0.41	0.23	0.42
In Bilingual Education	0.12	0.32	0.12	0.32
In English as 2nd Lang	6.1	0.24	5.4	22.6
Books in Home Index [range is 1 to 5]	3.77	1.23	3.90	1.14
One Computer at Home	0.44	0.50	0.47	0.50
Two Or More Computer at Home	0.47	0.50	0.44	0.50
Dependent Variables				
Negative Peer Pressure	0.19	0.96	-0.25	0.84
Num of Incidents of Harassment	85.7	145.5	51.9	102.8

Endnotes

---

[2] Mel is a local term that corresponds to dork or nerd in other schools. Don E. Mertens, "Visibility and Vulnerability: Responses to rejection by nonaggressive junior high boys," Journal of Early Adolescence, Vol. 16 No. 1, February 1996, p. 12.

[3] Don E. Mertens, "Visibility and Vulnerability: Responses to rejection by nonaggressive junior high boys," 1996, p. 19.

[4] Dorothy Espelage and Christine Asiado, "Conversations with Middle School Students about Bullying and Victimization: Should we be concerned?" forthcoming Journal of Emotional Abuse, 2003, p. 8. While students gave many different reasons for bullying, the bystanders that were interviewed often cited the desire for acceptance into a crowd as the explanation of bullying behavior.

[5] A. D. Pellegriini, M. Bartini and F. Brooks, "School bullies, victims and aggressive victims: Factors relating to group affiliation and victimization in early adolescence," Journal of Educational Psychology, 91, 1999, 216-224. P. C. Rodkin, T. W. Farmer, R. Pearl and R. Van Archer, Heterogeneity of popular boys: Antisocial and prosocial configurations," Developmental Psychology, 36,2000, 14-24.

[6] Lawrence Harrison, Culture Matters: How values shape human progress, edited by Lawrence Harrison and Samuel Huntington, Basic Books, 2000) p. xxv.

[7] Thomas Berndt, A. E. Laychek and K. Park, "Friends influence on adolescent's academic achievement motivation: An experimental study," Journal of Educational Psychology , Vol. 82, 644-670. Studies using non-experimental methods include Sandra B. Damico, "The Effects of Clique Membership upon Academic Achievement," Adolescence, vol. X , no. 37, (Spring 1975), p. 93-100; Thomas Kinderman, "Natural peer groups as contexts for individual development : The case of children's motivation in school," Developmental Psychology , Vol. 29, no. 6, 1993, 970-977. For reviews of this literature see: Thomas Berndt and Keunho Keefe, (1995) "Friends influence on school adjustment: A motivational analysis," 248-278 and Thomas Kinderman, Tanya L. McCollam and Ellsworth Gibson, Jr., (1995) "Peer networks and student's classroom engagement during childhood and adolescence," 279-311 in J. Juvoven and K.R. Wentzel (Eds), Social Motivation: Understanding Childrens' School Adjustment , Cambridge, England, Cambridge University Press, and B. Bradford Brown, "Peer Groups and Peer Cultures" in S. S. Feldman and G.R. Elliot (Eds) At the Threshold: the Developing Adolescent, Cambridge, Mass: Harvard University Press, 1990, 171-196.

[8] David Zimmerman, (1999) "Peer Effects on Academic Outcomes: Evidence from a Natural Experiment' NBER ; Bruce Sacerdote, (2000) "Peer Effects with Random Assignment: Results for Dartmouth Roommates," Dartmouth College .

[9] Caroline Hoxby, (2000) "Peer Effects in the Classroom: Learning from Gender and Race Variation," Cambridge Mass: National Bureau of Economic Research, Working Paper 7867, 1-62;

[10] Joshua D. Angrist and Keven Lang, (2002) "How important are Classroom Peer Effects? Evidence from Boston's Metco Program," Cambridge Mass, National Bureau of Economic Research, Working Paper 9263, 1-38.

[11] Eric A. Hanushek, John Kain and Steven G. Rivkin, (2002) "New Evidence about Brown V. Board of Education: the Complex Effects of School Racial Composition on Achievement," Cambridge Mass, National Bureau of Economic Research, Working Paper 8741, 1-38.

[12] Michael Boozer and Stephen E. Cacciola, (2001) "Inside the 'Black Box' of Project Star: Estimation of Peer Effects Using Experimental Data," Yale University, Economic Growth Center Discussion Paper # 832, 1-__.

[13] Andrew Zau and Julian Betts, "Peer Groups and Academic Achievement: Panel Evidence from Administrative Data," Public Policy Institute of California.

[14] Ernest Fehr and Simon Gachter, "Cooperation and Punishment in Public Goods Experiments," American Economic Review, Vol. 90(4), Sept. 2000, 980-994. Costly punishment also has substantial effects when players develop reputations and the game is repeated an ex ante unknown number of times. Elinor Ostrom, James Walker and Roy Garder, "Covenants with and without a

Sword: Self-Governance is Possible." American Political Science Review, June 1992, 86(2), 404-417.

[15] B. Bradford Brown, "Peer Groups and Peer Cultures," in S. S. Feldman and G.R. Elliot (Eds) At the Threshold: the Developing Adolescent, Cambridge, Mass: Harvard University Press, 1990, p. 177.

[16] The studies and ethnographies that were particularly useful were: Philip Cusick, Inside High School, New York: Holt, Reinhart and Winston, 1973, 1-243; Donna Eder et al., School Talk, New Brunswick: Rutgers University Press, 1995, 1-198; Rosalind Wiseman, Queenbees and Wannabes, New York: Crown Publishers, 2002, 1-336; Penelope Eckert, Jocks and Burnouts: Social Categories and Identity in the High School, New York: Teachers College Press, 1989, 1-195; Rachel Simmons, Odd Girl Out , New York, Harcourt, Inc., 2002, 1-289; Patricia Hersch, A Tribe Apart, New York: Ballantine Books, 1999; Mary Haywood Metz, Classrooms and Corridors, Berkeley: Univ. of California Press, 1978, 1-275, Theodore Sizer, Horaces Compromise, , New York, Houghton, 1984, 1-299; Arthur Powell, Eleanor Farrar and David Cohen, Shopping Mall High School, New York, Houghton, 1985, 1-360. Thomas French, South of Heaven, New York: Simon Schuster, 1993, 1-367.

[17] During the fall of 1997 seven interviewers were hired to collect data for a study of high school peer cultures in eight high performing suburban New York State high schools. The team met frequently during the fall to develop a protocol for the open-ended interviews and a paper and pencil questionnaire that respondents completed just prior to their personal interview. The interviewers were trained in interviewing techniques and used a tape recorder during the interview. We approached high performing high schools that were a short drive from the suburban residences of the Cornell students conducting the interviews during the winter break. Respondents were selected and parental permissions were handled by the cooperating high school. One hundred and thirty-five tenth graders were interviewed (most of them female) during January 1998. The following semester all but one of the interviewers took a seminar exploring qualitative research methodologies and read articles and books discussing student peer culture. The students then wrote an "ethnography' of the school they had studied. Student ethnographies were shared with the principal of the high school studied. A second wave of personal interviewing was undertaken with a convenience sample of male students attending Ithaca area middle schools and high schools.

[18] The Educational Excellence Alliance is a consortium of schools and school districts that are interested in learning how to more effectively help all their middle and high school students to achieve at higher levels and to respect individual differences. The Alliance offers its members a convenient means of assessing and diagnosing their student peer cultures in a way that allows them to compare themselves to other similar schools and to track changes over time. During the 1998-99 school year, 134 schools in New York, Massachusetts, Connecticut, New Jersey, and Pennsylvania undertook a standardized assessment of the culture of their 10th graders and were sent reports comparing their students' responses to the responses at other comparable schools. The questionnaire was revised in January 2000 and another 270+ schools (nearly half of them middle schools) have participated since then. Many of the schools participating in this second wave of data collection are located outside of the Northeast. The reports sent back to each school point out areas of concern and have suggested reading materials that might be helpful in planning interventions designed to build a student culture that honors academic achievement and respects individual differences.

[19] See Eric Erickson, (1968) Identity, Youth and Crisis, New York: Norton and P. R. Newman and B. M. Newman, "Early adolescence and it's conflict: Group Identity vs. alienation" Adolesence, Vol 10, 127-136.

[20] Don E. Mertens, "Visibility and Vulnerability: Responses to rejection by nonaggressive junior high boys," 1996, p. 14. Middle school teachers are with a particular student for only 50 minutes a day, so are powerless to stop the dominance by insult game that so many boys play during middle school.

[21] Don E. Mertens, "Visibility and Vulnerability: Responses to rejection by nonaggressive junior high boys," 1996, p. 19.

[22] Don E. Mertens, "Visibility and Vulnerability: Responses to rejection by nonaggressive junior high boys," 1996, p. 16.

[23] Don E. Mertens, "Visibility and Vulnerability: Responses to rejection by nonaggressive junior high boys," 1996, p. 19.

[24] Don E. Mertens, "Visibility and Vulnerability: Responses to rejection by nonaggressive junior high boys," 1996, p. 18.

[25] Student at Harbor Edge High School interviewed by Lara Gelbwasser, "Organizational Culture and the Power of Peers," Cornell University, School of Industrial and Labor Relations, Spring 1998.

[26] Student at Newport Junction High School interviewed by Lara Gelbwasser, "Organizational Culture and the Power of Peers," Cornell University, School of Industrial and Labor Relations, Spring 1998.

[27] Student at Harbor Edge High School interviewed by Lara Gelbwasser, "Organizational Culture and the Power of Peers," Cornell University, School of Industrial and Labor Relations, Spring 1998.

[28] Student at Longview High School interviewed by Shanna Green, "The Door Opens Once You Get Here," p. 14,15.

[29] Don E. Mertens, "Information Versus Meaning: Toward a further understanding of Early Adolescent Rejection," Journal of Early Adolescence, Vol. 16 No. 1, February 1996, p. 41.

[30] Margaret Talbot, "Girls Just Want to be Mean," The New York Times, Magazine section, Feb. 24, 2002.

[31] Student at Harbor Edge High School interviewed by Lara Gelbwasser, "Organizational Culture and the Power of Peers," Cornell University, School of Industrial and Labor Relations, Spring 1998.

[32] Student at Newport Junction High School interviewed by Lara Gelbwasser, "Organizational Culture and the Power of Peers," Cornell University, School of Industrial and Labor Relations, Spring 1998.

[33] Student at Newport Junction High School interviewed by Lara Gelbwasser, "Organizational Culture and the Power of Peers," Cornell University, School of Industrial and Labor Relations, Spring 1998.

[34] Andy Zuckerman, "Working Hard or Hardly Working? A High School Ethnography," Cornell University, School of Industrial and Labor Relations, 1998, p. 23.

[35] Andy Zuckerman, "Working Hard or Hardly Working? A High School Ethnography," Cornell University, School of Industrial and Labor Relations, 1998, p. 23.

[36] Andy Zuckerman, "Working Hard or Hardly Working? A High School Ethnography," Cornell University, School of Industrial and Labor Relations, 1998, p. 23.

[37] Kenneth Arrow, "Political and Economic Evaluation of Social Effects and Externalities," in Michael Intriligator, ed., *Frontiers of quantitative economics.* Amsterdam: North-Holland, 1971, pp. 3–25.

[38] A study of norms at a predominantly Jewish high school in New York City found peers thought that being bright was fine as long as you were not studious. Getting good grades did not get one into trouble with one's peers, it was trying to get good grades. Abraham J. Tannenbaum, "Adolescents' Attitudes Toward Academic Brilliance." PhD Dissertation, New York University, 1960.

[39] George Akerlof and Rachel Kranton, "Identity and Schooling: Some Lessons for Economics of Education," June 2002, The Institute for Advanced Study.

[40] Philip Cusick, Inside High School, (New York, Holt Rinehart Winston, 1973) p. 159.

[41] Even with all these efforts to control for personal attitudes and environmental factors, these regressions do not provide unbiased estimates of the causal impact of peer norms on behavior. Bias comes from measurement error in the attitude and peer pressure variables and from possible feedback effects of behavior on our indicators of attitudes and peer pressure (respondent's might be justifying their behavior by describing their friends as advocating it). Another problem is that students have chosen their clique and were probably aware of the peer pressures they would be subjected to when they joined it. The school/gender/grade means of attitude and peer pressure scales should be less subject to measurement error and pretty close to exogenous. Students do not choose the grade they are in and seldom influence the school they are sent to.

[42] At one reviewer's suggestion we entered the squared deviation variables to models predicting other outcomes to test for curvilinear effects. Despite the large sample size, very few of these variables

were statistically significant.

[43] This parameter is calculated by multiplying the standardized regression coefficient on the school characteristic by the ratio of the student SD for this attitude scale to the school standard deviation for the variable. In most cases this ratio is about 6. This means that the unstandardized coefficients on school mean attitude scales are being standardized by the same SD that the clique attitude scales are being standardized by. This makes the coefficients directly comparable in much the same way that unstandardized coefficients would be comparable.

[44] Dorothy Espelage and Christine Asiado, "Conversations…", p. 8-9.

[45] Don E. Mertens, "Information Versus Meaning: Toward a further understanding of Early Adolescent Rejection," Journal of Early Adolescence, Vol. 16 No. 1, February 1996, p. 41.

[46] In 1980 seventy-five percent of the 10th graders in the bottom quartile on achievement tests said they planned to attend college. National Center for Education Statistics, *Digest of Education Statistics*, 1993, p. 137.

[47] Twelve years later in 1992 only 3.3 percent of students in the bottom quartile on a battery of achievement tests taken in 12th grade had actually obtained a Bachelors degree and only 4.1 percent had gotten an Associates degree. Students in the top quartile were 20 times more likely to get a Bachelors degree. National Center for Education Statistics, *Digest of Education Statistics*, 1998 p. 329. When this information is presented to students, it should be stressed that college completion rates are influenced by absolute achievement levels not ones class rank and that poor achievement in the early years of secondary school can be overcome by hard work in the upper grades.

[48] Making college attendance and completion a part of a school's ethos need not marginalize applied technical education. Many of the jobs that used to be filled by young high school graduates, now require a strong background in writing, math and science and a longer period of occupationally specific training. This training is now being done partly in high school and partly in community college. Consequently, vocational teachers should present their program as the occupational equivalent of Advanced Placement courses in academic subjects. Those who graduate with three or four courses occupational courses earn substantially more and are better able to support themselves while attending college. At the end of 10th grade, students with low academic achievement levels should be required to develop a backup plan that involves training for immediate employment after high school.

[49] James Coleman, The Adolescent Society, New York, Free Press, 1961.

[50] Other ways of broadening participation would be to include scores on subject matter tests taken by students in a particular course (*eg*. 3rd year French) or in the whole school (*eg*. the state's 7th grade science test). As in sports, fair competition can be ensured by placing small schools and schools serving disadvantaged populations in separate leagues. While cable TV broadcasts of High School Bowl-like contests can be a component of the program, most of the points obtained by a school's team should come from assessments of the performance of the entire team on authentic tasks like writing an essay, giving a speech, determining the chemical composition of a compound, working out long mathematics problems, writing a computer program, or fixing a car.