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Paper 75

RELATIONSHIPS BETWEEN

PAID WORK INTENSITY AND PROBLEM BEHAVIORS

VARY BY RACE-ETHNICITY AND SOCIOECONOMIC STATUS:

EVIDENCE FROM THE MONITORING THE FUTURE STUDY

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2013

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Relationships between

Paid Work Intensity and Problem Behaviors

Vary by Race-Ethnicity and Socioeconomic Status:

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INTRODUCTION

This Occasional Paper reports an extensive set of analyses carried out prior to and in conjunction with analyses we reported in a short article published in *Developmental Psychology* (Bachman, Staff, O'Malley, & Freedman-Doan, 2013). The findings in the two publications are entirely consistent, and much of the Introduction and Discussion sections overlap. But because this Occasional Paper is not limited to journal space constraints, it can and does provide a much more complete reporting of supplemental analyses. For instance, this Occasional Paper reports most findings separately for males and females, and shows that relationships are generally quite consistent across the genders. Because of this similarity of findings for males and females, we combined genders for the analyses reported in the journal article. There are a variety of other differences between the two publications such that we opted to make this Occasional Paper available for those wishing to see the additional findings that support and expand those included in the journal article.

For more than three decades Monitoring the Future (MTF) publications have reported findings on student paid work intensity (i.e., the average number of hours worked per week during the school year). These publications consistently show that relations between work intensity and various measures of adolescent achievement and adjustment tend to be largely linear, with longer hours associated with poorer outcomes (Bachman, Johnston, & O'Malley, 1981; Bachman, 1983; Bachman & Schulenberg, 1993; Bachman et al., 2008; Osgood, 1999; Safron, Schulenberg, & Bachman, 2001; Bachman, Staff, O'Malley, Schulenberg, & Freedman-Doan, 2011). Specifically, with each increment in hours of paid work, levels of substance use are higher, and levels of school success, educational aspirations, and healthy behaviors (e.g., eating breakfast, exercising, and getting at least eight hours of sleep per night) are lower. These findings provide little support for the notion that some "cut-off" point exists above which student employment would be problematic; rather, most MTF findings indicate that "less is better" across the whole range of work intensity.

There are two noteworthy exceptions to the general conclusion that less is better when it comes to student work intensity: first, zero hours of paid work, while not explored extensively in this paper, is *not* consistently associated with better outcomes than low levels of paid work; and second, among those who did hold paid employment while in 12th grade, longitudinal analyses show little difference in long-term educational attainment among those who had worked 1-5, 6-10, or 11-15 hours (Bachman et al., 2011).

The association between high work intensity and problem behaviors may reflect causation, self-selection, or some of each. Another key finding from MTF and most other research is that although adolescent work intensity during the school year is *correlated* with negative outcomes, much and sometimes all of the association seems attributable to prior more fundamental differences, i.e., self-selection effects (Apel et al., 2007; Bachman, Safron, Sy, & Schulenberg, 2003; Paternoster, Bushway, Brame, & Apel, 2003; Mortimer, 2003; Rothstein,

2007; Schoenhals, Tienda, & Schneider, 1998; Staff, Osgood, Schulenberg, Bachman, & Messersmith, 2010; Staff, Schulenberg, & Bachman, 2010; Warren, 2002; Warren, LePore, & Mare, 2000). Nevertheless, there is also evidence suggesting that high work intensity during adolescence has negative impacts on educational attainment (Bachman et al., 2011; Lee & Staff, 2007; Mortimer, 2003; Staff & Mortimer, 2007) and perhaps also contributes to long-term cigarette smoking (Bachman et al., 2011). Theoretical perspectives that stress causal relationships (i.e., social control theory, routine activities theory) hold that high work intensity may increase problem behaviors by weakening the informal social control of parents and teachers, by competing with school work and extracurricular activities, or by facilitating unstructured and unsupervised activities with peers (Hirschi, 1969; Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996). Alternatively, several theoretical perspectives stress spurious relationships (i.e., self-control theory, problem behavior theory, precocious development theory), positing that youth who work intensively are more likely to be involved in problem behaviors because of preexisting orientations and behaviors. Youth who have difficulty delaying long-term gratification, who are transition prone, or who are striving for a more "adult-like" independence may lean more toward substance use and the immediate rewards of high intensity work (e.g., pay, autonomy, status from friends and intimate partners) than achieving high grades in school (Gottfredson & Hirschi, 1990; Jessor & Jessor, 1977; Newcomb & Bentler, 1988; Bachman & Schulenberg, 1993).

Our recent findings (Bachman et al., 2011) apply to samples of high school seniors taken as a whole, as well as to females and males separately. An important question remains about whether the negative effects of intensive work hours (i.e., averaging over 20 hours per week during the school year) among working youth are equally applicable to various population subgroups – especially those defined by race/ethnicity and socioeconomic background or status (SES). Although research suggests that the onset and intensity of teenage employment varies by these demographic characteristics (US Department of Labor, 2000; National Research Council, 1998; Staff, Messersmith, & Schulenberg, 2009), little research has identified whether the effects of work hours are different for African-American, Asian-American, Hispanic, and White youth, and for youth from more or less advantaged socioeconomic backgrounds.

D'Amico (1984), for instance, found that intensive hours of employment in the 10th grade reduced the odds of high school completion only for white males. Other research has shown that spending long hours on the job during the school year may not be harmful for those youth who come from low SES backgrounds (Entwisle, Alexander, & Olson, 2005; Farkas, Olsen, & Stromsdorfer, 1981; Farkas, Smith, & Stromsdorfer, 1983). Lee and Staff (2007) also found that intensive work had little effect on school dropout among those youth who were especially likely, based upon preexisting characteristics, to spend long hours on the job. The conditional effects of work hours extend beyond achievement-related outcomes, as Johnson (2004) showed -- Whites who spent long hours on the job had higher rates of alcohol and substance use, whereas intensive work effects were inconsistent among African-American and Hispanic youth. In addition, Apel et al. (2007) found that intensive hours of paid work during the school year reduced substance

use and delinquency at age 16 only among a small group of disadvantaged youth who initially displayed high rates of problem behaviors. Also, a very recent article by Rocheleau and Swisher (2012) reported that among students from single family households, alcohol use was actually negatively related to work hours, in contrast to the positive relationships found for total samples in most studies.

The questions noted above concerning causation, self-selection, or some of each apply to how the relationships between part-time work and problem behaviors may differ by race/ethnicity and SES. Theoretical perspectives that stress selection processes (e.g., problem behavior, precocious development, and self-control theories) suggest that differential selection into employment may account for racial/ethnic and SES differences in associations between paid work and problem behavior. For instance, African-American and Hispanic youth as well as low SES youth confront significant challenges when finding and obtaining a job, such as discrimination and a more limited and competitive local job market, compared to White youth and those from more advantaged backgrounds (Newman, 1999; Sullivan, 1989). Given this more stringent process of selection, minority and low SES youth who eventually obtain paid work may be less prone to problem behaviors, even when they work at high intensities.

Theoretical perspectives that stress causal mechanisms (e.g., social control or routine activities theory) suggest that population subgroup differences in the context of employment, or in reasons for working, may lead to varying work effects. For instance, the more stringent selection into work among African-American, Hispanic, and low SES youth may increase the likelihood that they will be employed in relatively good jobs (Entwisle, Alexander, & Olson, 2000; Newman, 1999). Higher quality work experiences (i.e., learning opportunities, skill utilization, and compatibility with school) may provide youth with a greater stake in conformity and fewer opportunities for misconduct both during and outside of work. Furthermore, African Americans, Hispanics, and low SES youth may need to work more hours to help with family finances or future educational expenses, in comparison to teenagers who are working only for discretionary income (Bachman, 1983; Greenberger & Steinberg, 1986; Entwisle et al., 2000, 2005; Newman, 1999). Therefore, to the extent that minority and low SES students are more likely than average to have rewarding jobs and use their earnings for family obligations and school expenses, long hours in such jobs may be less likely to increase problem behaviors (Marsh, 1991; Marsh & Kleitman, 2005; Staff & Uggen, 2003; Staff, Schulenberg, Bachman, Parks, & VanEseltine, 2010).

Using nationally representative, cross-sectional data from MTF with 35 samples of 12th grade students from 1976 to 2010 and 20 samples of 10th grade students from 1991 to 2010, we address whether certain groups of youth may be more, or perhaps less, likely to suffer adverse consequences from working long hours during the school year. We first examine subgroup differences in proportions working and not working during the school year, and in proportions reporting various levels of paid work intensity by grade level, gender, race/ethnicity, and parental education (the indicator of socioeconomic background available in MTF). We then turn to

examining the extent to which subgroups differ in the ways that work intensity relates to grade point average (GPA), educational plans, and several forms of substance use, namely cigarette smoking, heavy drinking, and marijuana use.

METHODS

Samples

The analyses reported here are based on the Monitoring the Future surveys of high school seniors in the years 1976-2010, and 10th graders in the years 1991-2010. Sample and data collection details are available elsewhere (e.g., Bachman, O'Malley, Johnston, & Schulenberg, 2010; Johnston, O'Malley, Bachman, & Schulenberg, 2010). All of the analyses are limited to those who answered the relevant question(s) about work intensity during the school year. In addition, we limit almost all of our analyses to those who reported working for pay during the school year.

Unless otherwise noted, all analyses reported here used case-wise deletion to deal with missing data. That is, each analysis was limited to those cases that provided complete data (i.e., no missing data) on the measures used in that analysis. With the exception of the set labeled "additional analyses" at the end of this paper, no imputation of missing data was used. (We have found in other analyses involving student employment that findings differed relatively little whether case-wise deletion or multiple imputation of missing data was used; therefore, we opted for the less complicated approach here.)

Measures

Work intensity during the school year. Each year respondents were asked, "On the average over the school year, how many hours per week do you work in a paid or unpaid job?" The response categories were: none, 5 hours or less, 6–10, 11–15, 16–20, 21–25, 26–30, and more than 30 hours. Among 12th graders, a separate question about amount of money earned was used to distinguish those who worked but not for pay.

School performance, aspirations, and substance use. School performance was measured with a question about self-reported grade point average attained during "this school year" for 10th graders and "so far in high school" for 12th graders (coded on a nine-point scale ranging from 1 = "D" to 9 = "A"). Educational aspirations were measured with a question on likelihood of graduating from a four-year college program (coded on a four-point scale from "definitely won't" to "definitely will"). Substance use measures included frequency of cigarette use in the last 30 days, marijuana use in the last 12 months, and heavy drinking (five or more drinks at a time) during the past two weeks. The response scales are approximately logarithmic, with each unit beyond zero roughly double the previous one.

Background Factors. Sociodemographic measures include gender, grade level (10th vs. 12th), race/ethnicity, class cohort, and parental education. Race and ethnicity were coded into

four dummy variables indicating Hispanic (Mexican American, Cuban American, Puerto Rican, other Latin American), African American, Asian American, and White. Urban density, number of parents in the household, whether the respondent's mother held a paid job, number of evenings out for fun and recreation, the respondents' type of high school program, and their truancy over the last month were also included as predictors of substance use, GPA, and aspirations. (Question text and response categories for all variables are shown in Appendix Table 1A).

Statistical Significance

Most sample and subsample sizes in this report are quite large; over 500,000 12th graders in 35 graduating classes provided data on part time work, while more than 300,000 10th graders provided data over 20 years. Consequently, most confidence intervals around statistics are quite small, even after taking account of sample design effects. Some of the tables presented here include standard errors, and we sometimes mention whether differences reach statistical significance. Often, however, it is obvious that any difference large enough to be of *substantive* significance is also statistically significant, and we have not considered it necessary to state statistical significance in every such case; we are more likely to take note of those instances when a difference is *not* statistically significant. Because the sample sizes are large, occasions when differences may be statistically significant but of little substantive import are actually more likely to occur. We will, for example, note instances in which coefficients restricted to linear relations are nearly as strong as corresponding coefficients reflecting all relations (both linear and non-linear). In such instances, even though the differences might be large enough to be considered statistically significant, we may take the overall similarity in size of coefficients as indicators that relations are mostly or almost entirely linear.

In short, we have tried to provide sufficient information to permit readers to make judgments about the precision of our findings, while at the same time not burdening the paper with an excess of statements about statistically significant differences. Our focus is much more on size of relations and substantive importance when differences appear.

FINDINGS

Population Subgroup Differences in Employment and Work Hours (Intensity)

Table 1 presents the overall numbers of cases and percentage distributions in responses to the work intensity question(s) by gender and race/ethnicity, separately for 10th and 12th grade respondents. A great many comparisons are possible, of course, and Table 1 permits readers to examine all that they may wish. For present purposes we will highlight some of the comparisons we consider most important.

Twelfth graders work more than tenth graders. It comes as no surprise, of course, that students near the end of high school are more likely to work, and to work longer hours,

compared to those two years younger. The younger students are less educated, less experienced, and a bit smaller on average, all of which can make them less attractive to employers. In addition, many of the 10th graders are below the age of 16, and that may place legal limitations on the amount they are permitted to work.

Overall, the majority of 10th graders surveyed from 1991 to 2010 reported not working for pay during the school year; this pattern holds for males and females in all racial/ethnic subgroups. In sharp contrast, the large majority of 12th graders surveyed from 1976 to 2010 did report paid employment during the school year; again, this applies to both males and females in all racial/ethnic subgroups.

Among those who did work for pay during the school year, the 10th graders were likely to work relatively few hours; the modal response for those working was 5 hours or less (the median category was 11-15). Among 12th graders the modal response for those working for pay was 16-20 hours.

Males work slightly more than females. Overall, in both grades, males were slightly more likely than females to report working for pay, and also somewhat more likely to report working long hours. These broad findings hold for Whites, African Americans, and Hispanic students. Among Asian-American students, however, there is little difference by gender in overall proportions employed, though Asian-American females were less likely than males to report working long hours.

There are racial/ethnic differences in employment and work intensity. In both 10th and 12th grades, White students were more likely than minority students to hold paid employment during the school year. Among 10th grade male and female students combined, 43% of Whites reported paid employment, contrasted with 29% of African-Americans, 31% of Hispanics, and 26% of Asian-Americans. Among 12th graders, 73% of Whites reported paid employment, compared with 56% of African Americans, 60% of Hispanics, and 55% of Asian Americans. However, although White students were more likely than Asian-American, African-American, and Hispanic students to work during the school year, African-American and Hispanic students were more likely to work intensively (that is, more than 20 hours per week) when they were employed. For example, among employed 12th graders, 41% of Whites worked intensively compared to 46% of African Americans and 49% of Hispanics. Asian Americans, on the other hand, were the least likely to spend long hours on the job (34%).

Links between Parental Education (SES) and Student Paid Work Intensity: Subgroup Differences and Implications

Many prior analyses of MTF data relating to student employment have treated parental education (the best available proxy for socioeconomic level) as a background dimension to be controlled. In the present section of this paper we document again that higher parental education is correlated with lower student work intensity, but we also show whether and to what extent the correlation varies according to race/ethnicity.

We present the relations between parental education and student work intensity in two distinctly different tables. Table 2 shows bivariate frequency distributions and percentages for the four race/ethnicity subgroups. Table 3 shows work intensity as a function of (i.e., regressed upon) parental education.

Table 2 combines males and females, and is divided into parts A and B for 12th and 10th grade samples respectively. In order to make the tables somewhat manageable, we have bracketed the parental education scale into five categories[1] and the paid work intensity scale into just three categories (not working for pay, 1-20 hours of paid work, 21 or more hours of paid work). We note a few highlights from the table: As already seen in Table 1, there are very large overall differences in paid work intensity between 10th and 12th graders, and Whites are more likely than others to be employed. More importantly for present purposes, Tables 2A and B show that working long hours (21 or more per week), especially in the 10th grade, is negatively related to parental education to a great extent among Whites, to an equal or even greater extent among Asian Americans, but to little or no extent among African Americans and Hispanics. Conversely, the proportions *not* working for pay are positively related to parental education to only a modest degree among Whites, African Americans, and Hispanics but to a greater extent among Asian Americans. The column percentages at the left-hand side of Tables 2A and B show substantial differences in the way the subgroups are distributed across levels of parental education: Hispanics have by far the greatest proportions in the bottom level of parental education, whereas Asian Americans have the largest proportions in the top category of parental education.

We have not touched on all aspects of Tables 2A and 2B, but rather leave that for interested readers. We do want to call attention to the relatively small numbers of cases in certain categories. Most notably, there are only 56 weighted cases of Asian-American 10th graders at the top level of parental education who also reported working 21 or more hours per week in paid employment during the school year. When we keep in mind that there are three separate categories above 21 hours, and that we have sometimes separated males and females, it can be seen that certain categories are small and therefore subject to rather high levels of sampling error.

One solution to the problem of random variation is to make use of summary statistics to show overall relations, and we do so in Table 3. The patterns shown in Tables 2A and 2B indicate that the relations between parental education and student work intensity are largely linear within subgroups. Table 3 presents unstandardized bivariate regression coefficients showing work intensity as a function of (i.e., regressed upon) parental education. In this table the full 11-category version of parental education (i.e., 1.0, 1.5, 2.0…6.0) is used as the predictor and two versions of the paid employment measure are used as outcome. The left-hand portion of

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[1] Respondents are asked "What is the highest level of schooling your father completed?" They may select: 1 = Completed grade school or less, 2 = Some high school, 3 = Completed high school, 4 = Some college, 5 = Completed college, 6 = Graduate or professional school after college. Respondents are asked the same question about their mother's level of schooling. If responses from both parents are available, they are averaged; possible scores are thus 1.0, 1.5, 2.0…5.0, 5.5, and 6.0, and for Table 2 we have combined scores as follows: 1.0-2.0, 2.5-3.0, 3.5-4.0, 4.5-5.0, 5.5-6.0. (If a response for only one parent is available, that is used.)

the table shows the full range of hours of paid work, including zero paid work as the bottom category, with the three versions for 12th graders, as shown in Table 1, combined into a single category. The right-hand portion of the table is restricted to only those students reporting one or more hours of paid work. For the total samples in both grades, these linear coefficients are substantially stronger when restricted to those reporting some paid employment. This is because among Whites (who comprise the bulk of the total), and especially White females, those with the lowest level of parental education are more likely to report zero paid employment than those in the next lowest level of parental employment – and that lowers the overall negative relation when predicting work intensity from parental education.

Moving down Table 3 we can see that among 12th graders the regression coefficients for males are virtually identical whether the zero hours category is included or excluded, whereas for females the inclusion of the zero category cuts the size of the effect in half. Among 10th graders the coefficients are lower for both genders when nonworkers are included, but especially for females. Indeed, among the 10th graders the inclusion of the nonworkers always reduces the strength of the (consistently negative) coefficients, with only one minor exception. Among 12th graders the pattern is more variable; for Asian Americans those with the most educated parents are most likely to be not employed for pay, whereas for African Americans there is some tendency in the opposite direction. In balance, given that our primary focus in this paper is on variations in work intensity among those employed for pay, and given that many relations are non-linear when the zero hours category is included, we will focus primarily on the right-hand portion of Table 3.

Table 3 shows that for employed males and females in both grades there is a clear and statistically significant negative relation between parental education and work intensity. Students with better educated parents are more likely to limit or have limited their hours of paid work during the school year. Among racial/ethnic subgroups, the negative effect is consistent for White males and females across both grades; it is also clearly negative for Asian-American males and females, although not as strong by the time they are in the 12th grade. Among African Americans and Hispanics, any effect of parental education on student paid work intensity is far weaker.

In sum, among students holding paid employment during the school year, those having highly educated parents work fewer hours than those whose parents are less educated. This pattern holds for the total samples of males and females, as well as for White and Asian-American subgroups; however, there is rather little such effect within the African-American and Hispanic subgroups.

Relations between Paid Work Intensity and Outcome Variables: Linearity, Gender Differences/Similarities, Overview of Racial/Ethnic Differences

A great many comparisons are possible when dealing with multiple subgroups further separated by gender, and when examining a number of behaviors of interest as potential

outcomes. In the present analyses, there are four racial/ethnic subgroups, five outcomes of interest, plus gender and grade, creating 4 x 5 x 2 x 2 = 80 combinations. Figures showing the *shape* of relations have proved useful in earlier analyses, but there can be great efficiencies in describing relations using a single coefficient – especially if the relations are largely linear. Accordingly, a preliminary analysis objective was to ascertain whether the patterns for the eight gender/race/ethnicity subgroups are, in fact, largely linear and thus adequately described by single coefficients showing linear associations.

Analysis strategy for checking linearity. Given the large number of relations of interest, we opted to begin with simple comparisons of coefficients. Table 4 shows links between paid work intensity and outcomes in two different ways: MCA results (bivariate and multivariate) that capture both linear and non-linear relations, and OLS linear regression results (again, both bivariate and multivariate) that show only linear relations between the outcomes and paid work intensity. The two sets of multivariate analyses, MCAs and linear regressions, involve the same sets of other predictors ("controls") modeled in the same fashion. That is, any control measures used as categorical variables in the MCA analyses were again used as categorical variables, this time in the form of dummy variables, in the OLS regressions. Details are provided in Appendix Table A2, which shows the models used in all MCA and OLS regression analyses. Table 4 thus permits a quick check of (a) the degree of linear relations between paid work intensity and the outcomes, based on the OLS linear regressions, and (b) the extent of non-linear relations, reflected by the extent to which the MCA coefficients exceed the absolute value of OLS linear ones. An extensive series of figures based on the MCA results appears at the end of this paper as Appendix Figures A1-5, for those who wish to see the actual shapes of relations and the outcome scores before and after adjustment. The figures show relations that are generally linear both before and after adjustment, and are consistent with the summary findings presented in Table 4 and discussed below. Occasional departures from linearity tend to be limited to the top category of work intensity, often based on small numbers of cases, and therefore somewhat unreliable. Because these departures involve relatively few cases, they have rather little impact on the summary coefficients. We consider the comparison of coefficients, as described above and illustrated below, to be the better basis for judging degree of linearity.

Table 4 contains a large amount of information, organized so as to facilitate the comparisons of primary interest. First, the table is separated into two major parts: Part A consists of 12th grade students (classes of 1976-2010 combined), and Part B consists of 10th grade students (surveyed in 1991-2010). Within each of these two parts, the following conventions are maintained: MCA and OLS regression results are displayed side-by-side to reveal any departures from linearity. The OLS regression coefficients are standardized in order to facilitate comparisons with the MCA coefficients. Male and female results are adjacent to each other and shown right beneath the totals to permit easy assessment of gender differences, both for the total sample and for the four race/ethnicity subgroups. An intentional redundancy in Table 4 shows the four racial/ethnic subgroups with males and females combined in two places. They are first shown adjacent to each other to facilitate overall comparisons, and then are repeated along with

the corresponding male and female subgroups to show the extent to which male and female patterns do or do not differ from the combined subgroup totals.

Total sample findings. The first rows in both Part A and Part B of Table 4 show that for the grand total samples, the relations with all five outcome measures are almost entirely linear. The multivariate coefficients show that about two-thirds of the relations between paid work intensity and either GPA or college expectations are overlapping with the other predictors (i.e., the other control variables). Roughly half of the relations with heavy drinking and with marijuana overlap with the controls, whereas less than half of the relations with smoking overlap with the controls.

These findings for the grand total sample are just about equally true for the male and female samples when analyzed separately. Moreover, the sizes of coefficients are in most cases fairly similar for the total samples of males and females; the largest exception involves college expectations among 12th grade students – the females show less overall variance along this dimension, and show correspondingly lower coefficients.

A comparison of the grand total samples with the total male and total female samples reveals relatively few differences, and none that would lead to significantly different conclusions about the relations between paid work intensity and the outcomes. *One conclusion based on total samples with no distinctions involving race/ethnicity is that it seems reasonable to examine findings with males and females combined, albeit with gender included as a control variable.*

Findings for White students. Whites constitute more than two-thirds of the total 12th grade sample and nearly that many of the 10th grade sample, so it is not surprising that the findings for Whites fairly closely match those summarized for the total samples. Here again the relations are almost entirely linear and the OLS regression coefficients fully capture the relations with paid work intensity. Males and females show mostly minor differences, so that findings generally could be combined across genders for this subgroup. The findings for White students are consistently slightly stronger than those for the total sample.

Findings for Asian-American students. Asian-American students constitute roughly 3% of the total sample, although this proportion has shifted somewhat across the years combined for these analyses. In most respects, the findings for this small subgroup fairly closely match those for the total sample, which means that their findings are also fairly similar to those for White students. Among the Asian-American students, findings for females are generally somewhat stronger than those for males; nevertheless, for most purposes the two genders could be combined. The relations are mostly linear. *For some outcome measures, especially among 10th grade students, the standard deviations for Asian-American students are somewhat lower than those for Whites or the total samples, and for such dimensions the coefficients also tend to be somewhat lower.*

Findings for African-American students. African-American students comprise about 12% of the total samples (again, with proportions shifting somewhat between 1976 and 2010),

but the numbers of cases are quite large and thus give us a good deal of confidence. The findings for African-American students stand in sharp contrast to those for Whites and Asian Americans, and so they are also sharply different from the total sample findings. *Overall, these findings indicate that total sample findings regarding links with paid work intensity cannot safely be generalized to African-American students. Among the African-American students, most links between paid work intensity and the outcomes are much weaker than those for White or Asian-American students.*

One exception to the overall summary above is that among 10th grade students, African Americans show moderate and just about entirely linear bivariate relations between paid work intensity and marijuana use (eta = .124; product-moment correlation = .122), only slightly lower than the relations for the total sample or the other three racial/ethnic subgroups. The other outcome measures for 10th grade students (see Part B of Table 4) show relations with work intensity that are also mostly linear among African Americans, but much weaker than among those for the other three subgroups.

Among 12th grade students, African Americans show a small positive association between paid work intensity and marijuana use that appears almost entirely linear and is virtually unaffected by controls for other variables. Nevertheless, the bivariate association is only about half the size of the links found for White and Asian-American 12th grade students. Relations with the other outcome measures are mostly very small and non-linear for the 12th grade African-American students.

As for male-female differences, among the African-American students these are relatively small, thus suggesting that for many analysis purposes the two genders could be combined.

Findings for Hispanic students. Hispanic students make up about 12% of the total 10th grade sample (1991-2010) but less than 9% of the total 12th grade sample (with shifting proportions between 1976 and 2010). Here again the actual numbers of cases are adequate to give us a good deal of confidence. *In several respects the findings for Hispanic students fall in between those for African-American students and those for the White and Asian-American students.* Overall bivariate links (eta coefficients) between paid work intensity and the outcome measures for Hispanic students are mostly slightly larger than those for African-American students; moreover, those for the Hispanic students are mostly linear (in contrast to African-American 12th graders). The differences between males and females are quite small in most instances, so here again it appears that the two genders could be combined for most analysis purposes.

As noted earlier, we presented *standardized* coefficients in Table 4 in order to permit comparisons between MCA and OLS (linear) results. A further advantage of standardized coefficients is that they provide indications of amounts of variance explained. On the other hand, given the subgroup differences in variance, there are advantages to using *unstandardized* coefficients when making comparisons across groups. Such coefficients are included as

Appendix Table A3, and tests of significance of differences in the effects of paid work intensity between all gender/race/ethnicity subgroups are included as Appendix Table A4.

How Racial/Ethnic Differences in Parental Education (SES) May Affect Relations between Paid Work Intensity and Outcome Variables

In order to consider the extent to which the patterns described above may vary by parental education level, we present in Table 5 unstandardized bivariate and multivariate OLS regression coefficients for total samples as well as the four race/ethnicity subgroups, now further separated into three categories of parental education. As with other tables, Parts A and B present findings for 12th and 10th grade students respectively. Given the complexity of these analyses, and given that we have already established that findings for males and females are generally similar, this table shows the two genders combined.

Table 5 provides 50 different checks for interactions, both bivariate and multivariate, in the ways that paid work intensity relates to our five outcome measures. An inspection of the table reveals few interactions large enough to be considered of substantive importance, especially at the multivariate level. There are, however, some exceptions to this general conclusion, and the most interesting involve student GPA.

Interactions involving GPA. Among 12th graders, all relations between paid work intensity and GPA are negative. They are, however, far from equal. For the total sample, moving from the lowest level of parental education to the highest, absolute values of coefficient sizes increase substantially – from -0.09 to -0.18 to -0.23 (bivariate) and -0.03 to -0.08 to -0.12 (multivariate). These differences are many times larger than any of the standard errors, and thus are statistically significant. The pattern is essentially the same for the White and Asian-American subgroups, notably weaker among Hispanics, and weaker still among African Americans (indeed, the multivariate coefficients for African Americans are all smaller than -0.01 and show no meaningful pattern).

Figure 1 displays MCA findings for 12th graders showing the interactions described above in greater detail. First we note in passing that because the patterns shown in this figure include actual mean values (on the left-hand side), along with adjusted mean values (on the right-hand side) for each level of paid work intensity, it can readily be seen that the patterns for the total sample, and for Whites, are highly linear, consistent with the findings reported earlier, and the patterns for the other subgroups show no clear and important departures from linearity. But our primary reason for presenting the findings in Figure 1 is to show not only the different slopes noted in the previous paragraph, but also the overall differences in mean levels. So, for example, we can see in Figure 1 that even though high levels of paid work intensity appear more "costly" for high SES Whites than for those with the lowest levels of parental education, it is still the case that high SES Whites who work long hours show no lower GPAs than lower SES Whites working 1-5 hours. This holds for the unadjusted values on the left-hand side of the figure, whereas the adjusted data show a weaker version of the pattern. The Figure 1 findings also show

findings for Asian Americans similar to those for Whites, except that GPAs are consistently higher for the Asian-American students.

Among 10th graders a similar interaction is evident, and just about as strong for the total sample and also for Whites. It is nearly as strong for Hispanics. Among African Americans there is again no clear pattern (e.g., none of the multivariate coefficients is significantly different from zero). Among Asian Americans, the 10th graders, unlike their older counterparts, do not show a clear interaction; although the bivariate coefficients are all significantly negative, neither they nor the multivariate coefficients differ significantly from each other. The relatively large standard errors for employed Asian-American 10th graders provide a valuable caution against a too-literal interpretation of these particular findings, because although the 10th graders do not show the same sort of interaction we see for Asian-American 12th graders they also do not differ significantly from the 12th graders.

In sum, for the total samples at both grades, and for most race/ethnicity subgroups, it appears that the negative association between paid work intensity and GPA is far more pronounced among students with highly educated parents. African Americans are the one subgroup for which this is clearly not the case; for them we observe no clear and consistent link between work intensity and GPA, no matter what their level of parental education. Apart from the African Americans, Figure 1 suggests that, in general, students with the most highly educated parents have the most to lose (in terms of GPA) by working long hours during the school year.

As for college plans, there is less that needs to be said. The bivariate coefficients indicate modest negative links between work intensity and college plans for the total samples and for Whites, more so among 12th graders than 10th graders. However, there is little evidence of the clear interactions observed above for GPA. The multivariate analyses show very little relationship remains once the control variables are included in the equation. It is worth noting that GPA is included among the predictors of college plans, and also substance use.

Interactions involving substance use. None of the substance use measures shown in Table 5 shows interactions nearly as substantial as those for GPA. This general observation holds true for total samples in both grades, as well as most subgroups, and applies to both bivariate and multivariate coefficients. There are, however, moderate interactions evident in the bivariate coefficients for Whites, and thus also for the total samples.

Among White students in both 10th and 12th grades, smoking, instances of heavy drinking and use of marijuana all show positive bivariate relations with paid work intensity; and, as we saw to a greater extent for GPA, these relations tend to be strongest among those with the most highly educated parents. The most pronounced of these interactions among Whites involves annual marijuana use among 12th graders; bivariate coefficients increase from 0.10 to 0.15 to 0.19 going from the lowest to highest parental education categories. But the corresponding multivariate coefficients controlling for background and other factors including GPA are nearly equivalent (0.05, 0.06, and 0.06), indicating no interaction remaining once the other, probably prior factors are controlled.

Figure 2 presents MCA results showing the marijuana use findings for 12th graders in all four race/ethnicity subgroups, as well as the total sample. One has to look carefully to see the differences in slopes mentioned in the previous paragraph, because the overall levels of marijuana use do not differ appreciably by parental education.

Hispanic students show some roughly similar interactions at the bivariate level, especially among 12th graders; however, given the distinctly larger standard errors for these subgroups we cannot be as confident about these patterns. In any case, after multivariate controls, the differences linked to parental education are not large or consistent enough to be considered statistically trustworthy.

Among African-American students, all coefficients linking paid work intensity with substance use are positive, but most are not significantly different from zero (i.e., they are not twice the size of their standard errors). Annual marijuana use is the exception; most coefficients, multivariate as well as bivariate, are significant. Nevertheless, there is no consistent evidence of interaction with parental education – coefficients at all three levels are generally quite similar.

Asian-American students have relatively low levels of substance use in general, as illustrated in Figure 2. Nevertheless, their substance use is positively related to paid work intensity, and the bivariate and multivariate coefficients are mostly significantly greater than zero. However, these relations do not differ substantially or consistently by parental education level, so there is little evidence of interaction.

In sum, in the total samples of both 10th and 12th graders, substance use is positively correlated with paid work intensity. The correlations are stronger among students with highly educated parents, but after controls for GPA and other factors little of this difference remains. These total sample findings on interactions at the bivariate level are driven largely by the White students. The other race/ethnicity subgroups show less or no evidence that the relations between paid work intensity and substance use differ by level of parental education.

DISCUSSION

In this paper, we first documented variation in teenage employment by age, gender, race/ethnicity, and socioeconomic background, and then considered the extent to which these population subgroups differed in the ways that work intensity related to school success and substance use.

Consistent with prior research (U.S. Department of Labor, 2000; National Research Council, 1998), age, gender, race/ethnicity, and socioeconomic background influence the onset and intensity of employment in adolescence. In particular, we found that 12th graders were more likely than 10th graders to be employed and to spend longer hours on the job. Males were slightly more likely than females to report working for pay and also somewhat more likely to report working long hours, especially in senior year of high school. We also found that White students

were more likely than minority students to have paid employment during the school year. However, among those employed, African-American and Hispanic students were more likely than Whites to spend long hours on the job, whereas Asian Americans were less likely than Whites to work intensively. Finally, we found that among students holding paid employment during the school year, those having highly educated parents worked fewer hours than those whose parents were less educated.

Not only did we find variation by population subgroups in rates of employment and paid work intensity, the results also suggested some differences in how work intensity relates to school success and problem behaviors. For example, we did not find that high work intensity was more problematic for males than females, despite males being slightly more likely than females to spend long hours on the job. However, we did find some evidence that intensive work was not as harmful for African-American and for Hispanic subgroups (who were the most likely to work intensively during the school year). In fact, the relationship between intensive work and problem behaviors was significantly weaker for Hispanics and African Americans compared to Asian American and Whites. Intensive work, on the other hand, was most harmful for students who were the least likely, on average, to work intensively. In particular, youth whose parents had high levels of education were more likely to suffer academically from spending long hours on the job than youths from lower SES backgrounds.

Among those youth who worked, African Americans and Hispanics were more likely than Whites and Asian Americans to spend long hours on job. Moreover, although youth from lower SES backgrounds were less likely to be employed, they were more likely to work intensively when employed than their more advantaged peers were. Why did intensive work hours have little effect on achievement and problem behaviors for these youth? One reason might be that selection into employment explains subgroup differences in how intensive work relates to problem behaviors (Staff et al., 2010; Staff, Schulenberg, & Bachman, 2010). For instance, because African-American and Hispanic youth face relatively greater obstacles and challenges in obtaining a job compared to White youth (such as discrimination and limited local labor market opportunities), this greater selection into employment even at high intensities may mean that those selected are individuals who are less prone to problem behaviors. The vast majority of White youth, on the other hand, are employed – on average, only one quarter of White youth did not work during the school year. Low SES youth also face unique obstacles and challenges in obtaining employment compared to their more socioeconomically advantaged counterparts, which in turn could lead to heightened selectivity. For instance, ethnographic research shows that youth who reside in poor urban neighborhoods have fewer opportunities to find jobs than youth in higher-SES neighborhoods (Newman, 1999). When there is less stringent selectivity into jobs, there are more possibilities that paid work could lead to problem behaviors.

Differential selection into employment may also influence the overall quality of employment and help explain sociodemographic variation in paid work effects. For instance, more stringent selection into employment among African-American, Hispanic, and low SES

youth may mean that those who are selected have a heightened likelihood of working with adult mentors (Newman, 1999) and may help counter the common experience of age-segregation among young workers. Adult mentors can provide vocational and educational guidance by teaching young workers valuable job-related skills, by facilitating connections to other adult supervisors and coworkers, or by showing young workers the educational requirements they will need for future professions. Adults in the workplace may also teach young workers how to be responsible, independent, and trustworthy; how to conduct oneself in an interview; and how to interact with customers and other coworkers (Sullivan, 1989). On the other hand, Whites and adolescents from high SES backgrounds face a less competitive job market and thus may be more likely to work primarily alongside teenage supervisors and coworkers. The absence of adults in the workplace gives them fewer opportunities to learn vocational skills, positive work ethics, and a stake in the job, and instead provides more chances to violate workplace rules and encourages other problem behaviors.

It is also plausible that African Americans, Hispanics, and low SES youth who work intensively are doing so for different reasons than are Whites and high SES youth. Though teenagers often work for discretionary income rather than to provide for the financial needs of the family or for future educational expenses (Greenberger & Steinberg, 1986), youth who come from disadvantaged backgrounds are more likely to need to work more hours to pay for school supplies and activities, to help their parents with household expenses, or to save for college (Entwisle et al., 2000, 2005; Newman, 1999). Therefore, youth from lower SES backgrounds may be less likely to find that work is incompatible with school and family obligations than students from more advantaged families, which in turn would provide some protection against problem behaviors (Staff & Uggen, 2003). Moreover, researchers have suggested that work intensity has positive effects on achievement and adjustment among students who save their earnings for future education (Marsh, 1991; Marsh & Kleitman, 2005). Working long hours during the school year may not be as problematic among minority and low SES youth because they are more likely to be using their earnings for school and family expenses, whereas most youth spend the bulk of their earnings on other things (Bachman, 1983).

Consistent with other research (Apel et al., 2007; Johnson, 2004; Entwisle et al., 2000, 2005; Newman, 1999), our findings suggest that spending long hours on the job may not be so bad among African-American and Hispanic youth and those youth from disadvantaged backgrounds. Though we demonstrate some evidence of conditional effects of intensive work by race/ethnicity and socioeconomic background, it is important to highlight some notable limitations of the current analyses. First, our sampling frame includes 12th graders, and thus many of our analyses exclude approximately 15 to 20% of the population who do not graduate from high school. While intensive work during 12th grade may not be so bad among low SES and minority youth who stay in school that long, it still may be developmentally harmful among low SES and minority youth who work intensively at younger ages. Nonetheless, it is worth noting that our substantive findings are similar among both 12th and 10th graders. Moreover, the estimates we show are likely conservative, given that those who use substances and do poorly in

school are underrepresented in the 12th grade samples. Second, though we include a number of important variables to help control for spurious relationships, we may have missed some preexisting differences between intensive workers, moderate workers, and nonworkers. Finally, in the current paper we focus on the *intensity* of work during high school, but the *quality* of work experience (e.g., job stress, work–school conflict, work–family conflict, learning opportunities, ages of supervisor and coworkers) may help explain the observed subgroup differences in the harmful effects of work intensity. As mentioned before, not only could the meaning of intensive work hours be different for more or less advantaged youth, the context of these early work experiences may also differ. More research is needed on these issues.

ADDITIONAL ANALYSES, PART I:

RACIAL/ETHNIC DIFFERENCES IN LONG-TERMS OUTCOMES ASSOCIATED WITH 12TH GRADE PAID WORK INTENSITY

A recent analysis of MTF data (Bachman et al., 2011) showed that (a) higher levels of paid work intensity during 12th grade were correlated with lower levels of educational attainment and higher rates of cigarette smoking at modal ages 21-22 and 29-30; and (b) extensive controls for other prior (or mostly prior) factors substantially reduced the relationships (interpreted as selection effects), but still left some linkages large enough to be both statistically and substantively significant.

We now replicate key portions of those earlier analyses, this time focusing on three subgroups with follow-up samples large enough to provide reliable findings: Whites, African Americans, and Hispanics. The earlier analyses employed a number of different methods, all of which led the authors to conclude that the relations were essentially linear and could reasonably be summarized using OLS linear regression analysis; accordingly, we follow that practice here. The portion of findings replicated here is from Table 6 in Bachman et al. (2011). The analyses in this section employed MID — multiple imputation with deletion of cases that involved missing data on the outcome measure (see Bachman et al., 2011, for details).

Table 6 shows bivariate and multivariate standardized regression coefficients for Whites, African Americans, and Hispanics in the left-hand portion, along with results from the total sample shown in the center portion. In order to provide a full comparison with the earlier paper, Table 6 displays results for years of schooling as well as four different forms of substance use. But only the years of schooling and cigarette use show any appreciable long-term associations (either bivariate or multivariate); accordingly, we focus on only those two outcomes.

The findings here are consistent with earlier portions of the present paper, in that the findings for Whites are very similar to (and generally very slightly larger than) those for the total samples. Again, this is not surprising, given that the Whites constitute the large majority of the total samples.

Among African Americans at ages 21-22 there is a negative bivariate correlation between 12th grade paid work intensity and later educational attainment less than half as large as that for Whites, but the association is only slightly reduced by the inclusion of the control variables and remains highly statistically significant. By the time of follow-up surveys at ages 29-30, however, African Americans show no significant association. As for smoking among African Americans at ages 21-22, the bivariate association is very low (.029) but multivariate controls result in a bit of "unmasking" and the resulting coefficient is statistically significant (.057) and only slightly lower than that for Whites (.070). Here again, the age 29-30 findings for African Americans show no appreciable association.

In this section, as we saw in the analyses of 10th and 12th grade data reported earlier in this paper, the findings for Hispanics mostly fall somewhere between those for Whites and those for African Americans. For years of schooling by ages 29-30, the negative associations between 12th grade paid work and attainment are just about as strong for Hispanics as for Whites, whereas at ages 21-22 the findings for Hispanics are a bit weaker. Much the same can be said for smoking; at ages 29-30 the findings for Hispanics and Whites are much the same, whereas at ages 21-22 the findings for Hispanics are weaker.

ADDITIONAL ANALYSES, PART II:

VARIATIONS BY NUMBER OF PARENTS IN HOME

As mentioned earlier, recent work by Rocheleau and Swisher (2012) showed differences in correlates of work intensity, depending upon whether students were living with both parents compared with those from single-parent families. In other words, they found *interactions* – specifically, alcohol use measures showed little correlation with work intensity among those in two-parent families, whereas for those in single-parent families the correlations were actually negative (rather than the positive association that would be expected based on most research , included that reported above in the present paper).

The Rocheleau and Swisher findings were published after all of the analyses reported above had been completed. Those analyses included number of parents as a control variable in multivariate analyses, but only in an additive model. Given that the above analyses were all completed (and also in press in a shorter journal article), we opted not to redo any of them. We were, however, prompted to conduct brief additional analyses exploring how key correlations in the present paper might differ according the number of parents in the home.

Our first step in this additional analysis was to examine correlations based on the total samples, this time separating the sample according to number of parents in the home. We found that correlations were consistently smaller for those living with just one or zero parents. For example correlations between paid work intensity and GPA were -.18 for those living with both parents, compared with -.09 and -.03 for those living with one parent or neither (respectively).

Correlations between work intensity and substance use were all positive, and about half again as high among those living with both parents (see top portion of Table 7).

Because there are substantial racial differences in proportions living with both parents, we repeated the above analyses separately for the four race/ethnicity subgroups, with results included in the lower portion of Table 7. Consistent with earlier analyses of MTF data (e.g., Bachman, O'Malley, Johnston, Schulenberg, & Wallace, 2011; Bachman, Staff, O'Malley, Schulenberg, & Freedman-Doan, 2011), as well as present analyses reported above, the table shows that for African-American respondents (a) measures of substance use are far below average, and (b) virtually all of the correlations with paid work intensity are near zero. We discern no meaningful difference in correlations whether African-American respondents lived with two, one, or zero parents. For White respondents, on the other hand, most of the patterns of correlation are slightly more pronounced than those observed for the total sample. For Asian-American respondents, negative correlations between work intensity and GPA are similar to those for White respondents (i.e., very low for those living with zero parents, and highest among those living with both parents), but the positive correlations between work intensity and substance use differ rather little by number of parents. Among Hispanic students, the findings in Table 7 are similar to the findings earlier in this paper in showing patterns that are weaker than those for the total sample, but generally in the same directions.

The overall findings are thus consistent with those of Rocheleau and Swisher (2012) in showing that the negative correlates of work intensity are most pronounced among students living with both parents. In addition, the present findings show that these patterns are especially clear when the sample is restricted to White students, and not present among African-American students. The findings also show, at least for White students (who constitute over three-quarters of the total sample), that negative correlates are consistently weakest among those living with zero parents.

CONCLUDING COMMENTS

For several decades now, researchers have consistently found negative outcomes associated with high work intensity. These findings have been the basis for a major policy recommendation: High school students should avoid spending long hours on the job during the school year (National Research Council, 1998). Yet, recent research indicates that many of the negative behaviors associated with high work intensity may be attributable to other prior factors (selection effects), and a key finding emerging from the present research is that to the extent that there may be genuine negative consequences of high student work intensity, it seems they do *not* occur equally across socioeconomic and racial/ethnic subgroups. Rather, the present findings suggest that high intensity work during the school year may carry greatest risks for the very students for whom such high intensity work is least likely: Whites, Asian Americans, and

students whose parents live together with them and are well educated (and thus usually more socioeconomically advantaged). Possible costs of high student work intensity appear more limited for Hispanics, African Americans, and youth from less advantaged family backgrounds.

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Table 1
Part-Time Work Intensity during the School Year by Race/Ethnicity*
for 10th Graders (1991-2010) and 12th Graders (1976-2010)

10th Graders, 1991 - 2010

Work Intensity	Whites Males		Whites Females		African Americans Males		African Americans Females		Hispanics Males		Hispanics Females		Asian Americans Males		Asian Americans Females	
	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent
Not Working for Pay	59618	54.6	69047	59.9	13167	66.9	17012	74.4	12724	63.6	16297	74.4	4148	75.3	4068	73.5
1-5 hrs per week	13431	12.3	15784	13.7	1335	6.8	1339	5.9	1697	8.5	1591	7.3	396	7.2	502	9.1
6-10 hrs per week	9734	8.9	10099	8.8	1220	6.2	1191	5.2	1486	7.4	1107	5.1	274	5.0	322	5.8
11-15 hrs per week	7726	7.1	7224	6.3	763	3.9	676	3.0	908	4.5	720	3.3	225	4.1	226	4.1
16-20 hrs per week	8234	7.5	6846	5.9	1045	5.3	983	4.3	1114	5.6	850	3.9	171	3.1	194	3.5
21-25 hrs per week	4973	4.6	3467	3.0	828	4.2	711	3.1	759	3.8	622	2.8	132	2.4	106	1.9
26-30 hrs per week	2908	2.7	1805	1.6	615	3.1	530	2.3	552	2.8	378	1.7	66	1.2	59	1.1
31+ hrs per week	2570	2.4	1011	0.9	697	3.6	427	1.9	767	3.8	352	1.6	98	1.8	56	1.0
	109196	100	115283	100	19670	100	22869	100	20007	100	21917	100	5509	100	5532	100

10th Grade Not Working and Working

	Whites Males		Whites Females		African Americans Males		African Americans Females		Hispanics Males		Hispanics Females		Asian Americans Males		Asian Americans Females	
Not Working	59618	54.6	69047	59.9	13167	66.9	17012	74.4	12724	63.6	16297	74.4	4148	75.3	4068	73.5
Working	49577	45.4	46236	40.1	6503	33.1	5856	25.6	7283	36.4	5620	25.6	1362	24.7	1464	26.5

12th Graders, 1976 - 2010

Work Intensity	Whites Males		Whites Females		African Americans Males		African Americans Females		Hispanics Males		Hispanics Females		Asian Americans Males		Asian Americans Females	
	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent	Wtd. N	Percent
No Work, No Pay	35094	16.9	40570	18.5	8290	29.4	12994	33.8	5787	25.6	8102	31.6	2786	32.9	2463	29.9
No Work, Pay	4830	2.3	3433	1.6	1793	6.4	1562	4.1	923	4.1	665	2.6	182	2.2	101	1.2
Work, No Pay	14130	6.8	15607	7.1	1807	6.4	2842	7.4	1717	7.6	2124	8.3	899	10.6	988	12.0
Total Not Working	54054	26.0	59611	27.2	11890	42.1	17398	45.3	8427	37.3	10891	42.5	3867	45.6	3552	43.1
1-5 hrs per week	13879	6.7	14190	6.5	1608	5.7	1921	5.0	1180	5.2	1195	4.7	516	6.1	493	6.0
6-10 hrs per week	17598	8.5	20224	9.2	2046	7.3	2494	6.5	1591	7.0	1780	6.9	689	8.1	784	9.5
11-15 hrs per week	21117	10.2	27427	12.5	1809	6.4	2604	6.8	1497	6.6	1793	7.0	712	8.4	862	10.5
16-20 hrs per week	31551	15.2	38227	17.4	3068	10.9	4500	11.7	2590	11.5	3091	12.1	991	11.7	1073	13.0
21-25 hrs per week	27241	13.1	28199	12.9	2695	9.6	3556	9.3	2488	11.0	2590	10.1	682	8.1	682	8.3
26-30 hrs per week	19104	9.2	17078	7.8	2155	7.6	2921	7.6	2063	9.1	2190	8.5	491	5.8	395	4.8
31+ hrs per week	23225	11.2	14282	6.5	2950	10.5	3042	7.9	2782	12.3	2120	8.3	529	6.2	391	4.8
	207768	115	219237	100	28221	100	38437	100	22617	100	25650	100	8477	100	8231	100

12th Grade Not Working and Working

	Whites Males		Whites Females		African Americans Males		African Americans Females		Hispanics Males		Hispanics Females		Asian Americans Males		Asian Americans Females	
Not Working	54054	26.0	59611	27.2	11890	42.1	17398	45.3	8427	37.3	10891	42.5	3867	45.6	3552	43.1
Working	153714	74.0	159627	72.8	16331	57.9	21039	54.7	14190	62.7	14759	57.6	4610	54.4	4680	56.9

*Other race/ethnic groups not shown. After 2005, respondents could self-identify in multiple race/ethnic groups.
Respondents who did so are coded as Other for these analyses.

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Table 2A
Part-Time Work Intensity during the School Year
by Race/Ethnicity and Parental Education Level among 12th Graders: 1976-2010

Whites

Parental Education Level*	wtd. N / column %	Not Working for Pay wtd. N	row %	1-20 Hours per Week Paid Work wtd. N	row %	20+ Hours per Week Paid Work wtd. N	row %
(Low) 1	32,016 / 7.5%	9,264	28.9%	10,635	33.2%	12,116	37.9%
2	122,166 / 28.7%	29,908	24.5%	47,704	39.0%	44,554	36.5%
3	120,895 / 28.4%	29,455	24.4%	52,589	43.5%	38,852	32.1%
4	100,723 / 23.6%	27,543	27.4%	48,540	48.2%	24,640	24.5%
(High) 5	50,338 / 11.8%	16,657	33.1%	24,787	49.2%	8,895	17.7%
Total	426,138 / 100%	112,826	26.5%	184,255	43.2%	129,057	30.3%

African Americans

Parental Education Level*	wtd. N / column %	Not Working for Pay wtd. N	row %	1-20 Hours per Week Paid Work wtd. N	row %	20+ Hours per Week Paid Work wtd. N	row %
(Low) 1	10,598 / 16.3%	5,097	48.1%	3,087	29.1%	2,413	22.8%
2	21,311 / 32.7%	9,482	44.5%	6,125	28.7%	5,704	26.8%
3	18,401 / 28.2%	7,540	41.0%	5,659	30.8%	5,202	28.3%
4	10,745 / 16.5%	4,406	41.0%	3,462	32.2%	2,878	26.8%
(High) 5	4,158 / 6.4%	1,798	43.2%	1,428	34.3%	933	22.4%
Total	65,213 / 100%	28,323	43.4%	19,761	30.3%	17,129	26.3%

Hispanics

Parental Education Level*	wtd. N / column %	Not Working for Pay wtd. N	row %	1-20 Hours per Week Paid Work wtd. N	row %	20+ Hours per Week Paid Work wtd. N	row %
(Low) 1	16,692 / 35.9%	6,720	40.3%	4,857	29.1%	5,115	30.6%
2	12,127 / 26.1%	4,600	37.9%	3,732	30.8%	3,795	31.3%
3	9,785 / 21.1%	3,827	39.1%	3,157	32.3%	2,801	28.6%
4	5,382 / 11.6%	2,166	40.2%	1,789	33.2%	1,428	26.5%
(High) 5	2,447 / 5.3%	1,073	43.9%	812	33.2%	562	23.0%
Total	46,434 / 100%	18,387	39.6%	14,346	30.9%	13,701	29.5%

Asian Americans

Parental Education Level*	wtd. N / column %	Not Working for Pay wtd. N	row %	1-20 Hours per Week Paid Work wtd. N	row %	20+ Hours per Week Paid Work wtd. N	row %
(Low) 1	1,958 / 12.5%	726	37.1%	766	39.1%	465	23.8%
2	2,653 / 17.0%	1,001	37.7%	981	37.0%	671	25.3%
3	3,212 / 20.6%	1,326	41.3%	1,202	37.4%	684	21.3%
4	4,110 / 26.3%	1,907	46.4%	1,539	37.5%	663	16.1%
(High) 5	3,699 / 23.7%	2,006	54.2%	1,293	35.0%	401	10.8%
Total	15,632 / 100%	6,966	44.6%	5,782	37.0%	2,884	18.5%

*Parental Education Level is an index of respondents' reports of their parents' level of schooling. Full details are in Appendix Table A1.

Table 2B
Part-Time Work Intensity during the School Year
by Race/Ethnicity and Parental Education Level among 10th Graders: 1991-2010

Whites

Parental Education Level*	wtd. N column %	Not Working for Pay wtd. N	row %	1-20 Hours per Week Paid Work wtd. N	row %	20+ Hours per Week Paid Work wtd. N	row %
(Low) 1	10,401	5,939	57.1%	3,063	29.5%	1,398	13.5%
	4.8%						
2	51,642	28,335	54.9%	18,022	34.9%	5,285	10.2%
	23.6%						
3	62,486	35,018	56.0%	22,623	36.2%	4,845	7.8%
	28.6%						
4	62,126	36,299	58.4%	22,466	36.2%	3,361	5.4%
	28.5%						
(High) 5	31,705	19,204	60.6%	11,251	35.5%	1,250	3.9%
	14.5%						
Total	218,360	124,796	57.2%	77,425	35.5%	16,139	7.4%
	100%						

African Americans

Parental Education Level*	wtd. N column %	Not Working for Pay wtd. N	row %	1-20 Hours per Week Paid Work wtd. N	row %	20+ Hours per Week Paid Work wtd. N	row %
(Low) 1	3,377	2,256	66.8%	720	21.3%	401	11.9%
	8.5%						
2	11,307	8,136	72.0%	2,127	18.8%	1,045	9.2%
	28.6%						
3	12,107	8,667	71.6%	2,385	19.7%	1,055	8.7%
	30.6%						
4	9,089	6,420	70.6%	1,946	21.4%	723	8.0%
	23.0%						
(High) 5	3,695	2,541	68.8%	826	22.3%	328	8.9%
	9.3%						
Total	39,576	28,020	70.8%	8,004	20.2%	3,552	9.0%
	100%						

Hispanics

Parental Education Level*	wtd. N column %	Not Working for Pay wtd. N	row %	1-20 Hours per Week Paid Work wtd. N	row %	20+ Hours per Week Paid Work wtd. N	row %
(Low) 1	12,858	8,782	68.3%	2,905	22.6%	1,171	9.1%
	34.0%						
2	10,015	6,995	69.9%	2,120	21.2%	900	9.0%
	26.5%						
3	8,099	5,653	69.8%	1,894	23.4%	553	6.8%
	21.4%						
4	4,726	3,296	69.8%	1,117	23.6%	313	6.6%
	12.5%						
(High) 5	2,160	1,429	66.2%	566	26.2%	165	7.6%
	5.7%						
Total	37,858	26,155	69.1%	8,602	22.7%	3,101	8.2%
	100%						

Asian Americans

Parental Education Level*	wtd. N column %	Not Working for Pay wtd. N	row %	1-20 Hours per Week Paid Work wtd. N	row %	20+ Hours per Week Paid Work wtd. N	row %
(Low) 1	896	597	66.6%	204	22.8%	95	10.6%
	9.0%						
2	1,415	976	68.9%	347	24.5%	93	6.6%
	14.3%						
3	1,792	1,295	72.3%	396	22.1%	100	5.6%
	18.1%						
4	2,867	2,145	74.8%	629	22.0%	92	3.2%
	28.9%						
(High) 5	2,940	2,323	79.0%	562	19.1%	56	1.9%
	29.7%						
Total	9,910	7,336	74.0%	2,138	21.6%	436	4.4%
	100%						

*Parental Education Level is an index of respondents' reports of their parents' level of schooling. Full details are in Appendix Table A1.

Table 3
Parental Education Level (mean of both parents, 1=low, 5=high)
Predicting Age 18 Work Intensity:
Unstandardized Regression Coefficients and Standard Errors, 12th and 10th Graders

	12th Graders, 1976-2010				
	Full Range of Hours of Paid Work per Week (including zero hours)			1+ Hours of Paid Work per Week (excluding zero hours)	
	Est.	SE		Est.	SE
Total Sample	-0.179	0.009		-0.252	0.006
Males	-0.256	0.010		-0.263	0.007
Females	-0.125	0.010		-0.248	0.007
Whites	-0.281	0.009		-0.306	0.006
African Americans	0.072	0.018		0.000	0.016
Hispanics	-0.055	0.020		-0.075	0.015
Asian Americans	-0.272	0.021		-0.195	0.021
White Males	-0.356	0.010		-0.325	0.007
White Females	-0.221	0.010		-0.294	0.007
African-American Males	0.017	0.022		0.023	0.024
African-American Females	0.101	0.021		-0.017	0.018
Hispanic Males	-0.094	0.023		-0.062	0.018
Hispanic Females	-0.039	0.027		-0.088	0.021
Asian-American Males	-0.303	0.026		-0.175	0.029
Asian-American Females	-0.248	0.028		-0.218	0.028

	10th Graders, 1991-2010				
	Full Range of Hours of Paid Work per Week (including zero hours)			1+ Hours of Paid Work per Week (excluding zero hours)	
	Est.	SE		Est.	SE
Total Sample	-0.107	0.006		-0.260	0.009
Males	-0.157	0.008		-0.234	0.011
Females	-0.078	0.007		-0.290	0.010
Whites	-0.171	0.007		-0.299	0.009
African Americans	-0.026	0.014		-0.088	0.025
Hispanics	-0.034	0.012		-0.084	0.023
Asian Americans	-0.171	0.020		-0.308	0.036
White Males	-0.224	0.010		-0.287	0.012
White Females	-0.137	0.008		-0.315	0.011
African-American Males	-0.042	0.021		-0.066	0.034
African-American Females	-0.026	0.018		-0.118	0.033
Hispanic Males	-0.073	0.018		-0.047	0.028
Hispanic Females	-0.022	0.014		-0.138	0.034
Asian-American Males	-0.205	0.029		-0.315	0.052
Asian-American Females	-0.140	0.022		-0.296	0.042

Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with Descriptive Statistics
12th Graders, 1976-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**
Grand Total										
eta or Pearson	.167	-0.166	.189	-0.179	.155	0.154	.107	0.104	.103	0.101
beta (MCA/OLS)	.062	-0.060	.062	-0.056	.096	0.094	.054	0.051	.050	0.048
adj. R-square	.236	0.232	.359	0.358	.175	0.174	.213	0.211	.217	0.216
Mean	5.96		3.00		1.78		1.87		2.41	
Standard Deviation	1.96		1.13		1.32		1.33		2.09	
Nos. of cases included (wtd.)	376014		367852		371375		357941		368150	
% of cases included (wtd.)	89.1%		87.2%		88.0%		84.9%		87.3%	
Males Total										
eta or Pearson	.162	-0.161	.220	-0.207	.155	0.152	.104	0.101	.081	0.079
beta (MCA/OLS)	.063	-0.059	.081	-0.073	.093	0.091	.057	0.050	.033	0.030
adj. R-square	.216	0.215	.374	0.374	.159	0.158	.202	0.201	.210	0.209
Mean	5.63		2.91		1.79		2.13		2.63	
Standard Deviation	1.99		1.13		1.35		1.47		2.25	
Nos. of cases included (wtd.)	182163		177587		179587		172092		177649	
% of cases included (wtd.)	91.0%		88.7%		89.7%		85.9%		88.7%	
Females Total										
eta or Pearson	.155	-0.154	.148	-0.142	.156	0.155	.087	0.086	.118	0.115
beta (MCA/OLS)	.062	-0.059	.043	-0.041	.100	0.100	.052	0.052	.071	0.071
adj. R-square	.221	0.220	.345	0.345	.202	0.202	.168	0.168	.214	0.214
Mean	6.26		3.08		1.77		1.62		2.20	
Standard Deviation	1.89		1.11		1.29		1.13		1.91	
Nos. of cases included (wtd.)	193852		190265		191788		185849		190501	
% of cases included (wtd.)	91.8%		90.1%		90.9%		88.0%		90.3%	

Table 4A (Continued)
Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with Descriptive Statistics
12th Graders, 1976-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS
Whites Total										
eta or Pearson	.184	-0.184	.217	-0.209	.179	0.178	.121	0.119	.112	0.110
beta (MCA/OLS)	.066	-0.063	.067	-0.062	.107	0.104	.057	0.054	.050	0.047
adj. R-square	.244	0.243	.387	0.386	.179	0.178	.211	0.211	.223	0.223
Mean	6.07		2.98		1.86		1.94		2.48	
Standard Deviation	1.95		1.14		1.37		1.35		2.13	
Nos. of cases included (wtd.)	290448		284601		287590		279928		285893	
% of cases included (wtd.)	91.1%		89.3%		90.2%		87.8%		89.7%	
African Americans Total										
eta or Pearson	.055	-0.025	.126	-0.017	.057	0.035	.065	0.019	.062	0.058
beta (MCA/OLS)	.023	-0.007	.059	-0.017	.044	0.043	.028	0.009	.054	0.051
adj. R-square	.148	0.145	.237	0.232	.102	0.100	.121	0.119	.179	0.177
Mean	5.37		3.09		1.33		1.36		1.98	
Standard Deviation	1.87		1.06		0.84		0.94		1.80	
Nos. of cases included (wtd.)	32646		31673		31718		29116		30941	
% of cases included (wtd.)	84.7%		82.2%		82.3%		75.6%		80.3%	
Hispanics Total										
eta or Pearson	.085	-0.082	.092	-0.066	.088	0.078	.098	0.077	.078	0.073
beta (MCA/OLS)	.041	-0.037	.033	-0.021	.064	0.056	.068	0.051	.055	0.052
adj. R-square	.172	0.169	.236	0.233	.121	0.117	.190	0.185	.187	0.184
Mean	5.55		3.00		1.48		1.75		2.17	
Standard Deviation	1.93		1.06		0.99		1.28		1.90	
Nos. of cases included (wtd.)	25229		24603		24828		23167		24498	
% of cases included (wtd.)	84.8%		82.7%		83.4%		77.8%		82.3%	
Asian Americans Total										
eta or Pearson	.203	-0.197	.154	-0.147	.167	0.165	.145	0.134	.150	0.143
beta (MCA/OLS)	.111	-0.102	.055	-0.041	.101	0.099	.091	0.073	.080	0.067
adj. R-square	.246	0.238	.219	0.211	.139	0.131	.167	0.156	.212	0.202
Mean	6.54		3.52		1.44		1.42		1.78	
Standard Deviation	1.94		0.82		0.97		0.96		1.63	
Nos. of cases included (wtd.)	8081		7937		7952		7615		7915	
% of cases included (wtd.)	85.7%		84.2%		84.3%		80.8%		83.9%	

Table 4A (Continued)
Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with Descriptive Statistics
12th Graders, 1976-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS
Whites Total										
eta or Pearson	.184	-0.184	.217	-0.209	.179	0.178	.121	0.119	.112	0.110
beta (MCA/OLS)	.066	-0.063	.067	-0.062	.107	0.104	.057	0.054	.050	0.047
adj. R-square	0.244	0.243	.387	0.386	.179	0.178	.211	0.211	.223	0.223
Mean	6.07		2.98		1.86		1.94		2.48	
Standard Deviation	1.95		1.14		1.37		1.35		2.13	
Nos. of cases included (wtd.)	290448		284601		287590		279928		285893	
% of cases included (wtd.)	91.1%		89.3%		90.2%		87.8%		89.7%	
White Males										
eta or Pearson	.167	-0.167	.245	-0.233	.169	0.165	.107	0.105	.085	0.083
beta (MCA/OLS)	.058	-0.055	.086	-0.078	.103	0.100	.057	0.052	.033	0.030
adj. R-square	.218	0.217	.412	0.410	.160	0.159	.202	0.201	.223	0.222
Mean	5.66		2.86		1.88		2.24		2.70	
Standard Deviation	1.97		1.15		1.42		1.50		2.28	
Nos. of cases included (wtd.)	125633		122604		124154		120411		123263	
% of cases included (wtd.)	92.1%		89.9%		91.0%		88.3%		90.4%	
White Females										
eta or Pearson	.164	-0.163	.176	-0.171	.184	0.183	.101	0.100	.130	0.128
beta (MCA/OLS)	.066	-0.063	.049	-0.047	.111	0.109	.054	0.053	.071	0.070
adj. R-square	.214	0.213	.378	0.377	.201	0.200	.167	0.167	.225	0.224
Mean	6.33		3.00		1.92		1.71		2.31	
Standard Deviation	1.85		1.15		1.38		1.18		1.97	
Nos. of cases included (wtd.)	130673		128306		129556		126682		128950	
% of cases included (wtd.)	92.8%		91.1%		92.0%		90.0%		91.6%	

Table 4A (Continued)
Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with Descriptive Statistics
12th Graders, 1976-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS
African Americans Total										
eta or Pearson	.055	-0.025	.126	-0.017	.057	0.035	.065	0.019	.062	0.058
beta (MCA/OLS)	.023	-0.007	.059	-0.017	.044	0.043	.028	0.009	.054	0.051
adj. R-square	.148	0.145	.237	0.232	.102	0.100	.121	0.119	.179	0.177
Mean	5.37		3.09		1.33		1.36		1.98	
Standard Deviation	1.87		1.06		0.84		0.94		1.80	
Nos. of cases included (wtd.)	32646		31673		31718		29116		30941	
% of cases included (wtd.)	84.7%		82.2%		82.3%		75.6%		80.3%	
African-American Males										
eta or Pearson	.037	-0.017	.115	-0.030	.048	0.043	.069	0.026	.064	0.061
beta (MCA/OLS)	.023	0.004	.054	-0.030	.051	0.048	.039	0.023	.060	0.053
adj. R-square	.115	0.110	.249	0.242	.100	0.094	.127	0.121	.187	0.182
Mean	4.95		2.91		1.39		1.58		2.30	
Standard Deviation	1.83		1.08		0.92		1.19		2.05	
Nos. of cases included (wtd.)	12199		11735		11775		10608		11368	
% of cases included (wtd.)	86.4%		83.1%		83.4%		75.1%		80.5%	
African-American Females										
eta or Pearson	.064	-0.021	.137	0.001	.064	0.018	.058	0.016	.051	0.048
beta (MCA/OLS)	.034	-0.010	.065	-0.010	.046	0.041	.035	0.006	.050	0.049
adj. R-square	.131	0.127	.222	0.215	.121	0.117	.064	0.058	.152	0.148
Mean	5.58		3.14		1.30		1.20		1.72	
Standard Deviation	1.84		1.06		0.78		0.69		1.50	
Nos. of cases included (wtd.)	15840		15422		15454		14359		15183	
% of cases included (wtd.)	87.6%		85.3%		85.5%		79.4%		84.0%	

Table 4A (Continued)
Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with Descriptive Statistics
12th Graders, 1976-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**
Hispanics Total										
eta or Pearson	.085	-0.082	.092	-0.066	.088	0.078	.098	0.077	.078	0.073
beta (MCA/OLS)	.041	-0.037	.033	-0.021	.064	0.056	.068	0.051	.055	0.052
adj. R-square	.172	0.169	.236	0.233	.121	0.117	.190	0.185	.187	0.184
Mean	5.55		3.00		1.48		1.75		2.17	
Standard Deviation	1.93		1.06		0.99		1.28		1.90	
Nos. of cases included (wtd.)	25229		24603		24828		23167		24498	
% of cases included (wtd.)	84.8%		82.7%		83.4%		77.8%		82.3%	
Hispanic Males										
eta or Pearson	.073	-0.069	.108	-0.081	.091	0.072	.076	0.057	.057	0.050
beta (MCA/OLS)	.043	-0.033	.057	-0.043	.069	0.050	.059	0.043	.036	0.034
adj. R-square	.173	0.166	.235	0.227	.133	0.124	.179	0.170	.184	0.177
Mean	5.18		2.84		1.60		2.07		2.49	
Standard Deviation	1.94		1.07		1.13		1.47		2.12	
Nos. of cases included (wtd.)	9455		9172		9279		8554		9120	
% of cases included (wtd.)	86.3%		83.7%		84.6%		78.0%		83.2%	
Hispanic Females										
eta or Pearson	.076	-0.059	.066	-0.032	.082	0.075	.093	0.070	.083	0.073
beta (MCA/OLS)	.045	-0.016	.025	-0.005	.073	0.066	.076	0.056	.072	0.064
adj. R-square	.155	0.148	.252	0.246	.126	0.118	.164	0.155	.195	0.187
Mean	5.74		3.03		1.46		1.53		1.93	
Standard Deviation	1.86		1.07		0.92		1.07		1.66	
nos. of cases included (wtd.)	9792		9577		9647		9094		9568	
% of cases included (wtd.)	88.7%		86.7%		87.4%		82.4%		86.7%	

Table 4A (Continued)
Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with Descriptive Statistics
12th Graders, 1976-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**
Asian Americans Total										
eta or Pearson	.203	-0.197	.154	-0.147	.167	0.165	.145	0.134	.150	0.143
beta (MCA/OLS)	.111	-0.102	.055	-0.041	.101	0.099	.091	0.073	.080	0.067
adj. R-square		0.238		0.211		0.131		0.156		0.202
Mean	6.54		3.52		1.44		1.42		1.78	
Standard Deviation	1.94		0.82		0.97		0.96		1.63	
nos. of cases included (wtd.)	8081		7937		7952		7615		7915	
% of cases included (wtd.)	85.7%		84.2%		84.3%		80.8%		83.9%	
Asian-American Males										
eta or Pearson	.185	-0.183	.134	-0.127	.159	0.151	.131	0.102	.135	0.117
beta (MCA/OLS)	.121	-0.111	.052	-0.026	.112	0.105	.091	0.052	.073	0.045
adj. R-square	.259	0.243	.255	0.237	.147	0.128	.195	0.172	.248	0.229
Mean	6.28		3.45		1.51		1.56		1.96	
Standard Deviation	2.02		0.86		1.07		1.11		1.79	
nos. of cases included (wtd.)	3260		3181		3212		3050		3177	
% of cases included (wtd.)	85.2%		83.1%		83.9%		79.7%		83.0%	
Asian-American Total										
eta or Pearson	.203	-0.197	.154	-0.147	.167	0.165	.145	0.134	.150	0.143
beta (MCA/OLS)	.111	-0.102	.055	-0.041	.101	0.099	.091	0.073	.080	0.067
adj. R-square	.246	0.238	.219	0.211	.139	0.131	.167	0.156	.212	0.202
Mean	6.54		3.52		1.44		1.42		1.78	
Standard Deviation	1.94		0.82		0.97		0.96		1.63	
nos. of cases included (wtd.)	8081		7937		7952		7615		7915	
% of cases included (wtd.)	85.7%		84.2%		84.3%		80.8%		83.9%	

*For complete details on models used for these MCA and regression analyses, see Appendix Table A2

Table 4B*
Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with descriptive statistics
10th Graders, 1991-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**
Grand Total										
eta or Pearson	.197	-0.195	.160	-0.159	.182	0.181	.148	0.147	.148	0.145
beta (MCA/OLS)	.074	-0.070	.031	-0.028	.100	0.099	.072	0.069	.065	0.062
adj. R-square	.268	0.267	.308	0.307	.214	0.213	.175	0.174	.200	0.199
Mean	5.71		3.34		1.56		1.57		2.01	
Standard Deviation	2.23		0.89		1.11		1.12		1.82	
Nos. of cases included (wtd.)	117930		117086		116313		110184		116185	
% of cases included (wtd.)	85.1%		84.5%		83.9%		79.5%		83.8%	
Males Total										
eta or Pearson	.171	-0.168	.152	-0.151	.178	0.177	.152	0.149	.116	0.115
beta (MCA/OLS)	.067	-0.061	.043	-0.037	.101	0.098	.086	0.080	.045	0.043
adj. R-square	.241	0.240	.311	0.310	.195	0.193	.177	0.175	.188	0.187
Mean	5.43		3.19		1.57		1.68		2.13	
Standard Deviation	2.25		0.95		1.15		1.22		1.95	
Nos. of cases included (wtd.)	60827		60286		59968		56330		59757	
% of cases included (wtd.)	85.9%		85.1%		84.6%		79.5%		84.3%	
Females Total										
eta or Pearson	.204	-0.202	.135	-0.133	.190	0.187	.127	0.123	.181	0.173
beta (MCA/OLS)	.085	-0.083	.021	-0.015	.100	0.098	.055	0.053	.097	0.088
adj. R-square	.275	0.274	.264	0.263	.243	0.242	.163	0.162	.216	0.214
Mean	6.01		3.49		1.56		1.47		1.88	
Standard Deviation	2.17		0.79		1.08		0.98		1.67	
Nos. of cases included (wtd.)	57103		56801		56344		53854		56428	
% of cases included (wtd.)	88.5%		88.0%		87.3%		83.4%		87.4%	

Table 4B (Continued)
Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with descriptive statistics
10th Graders, 1991-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS
Whites Total										
eta or Pearson	.214	-0.212	.183	-0.181	.221	0.219	.170	0.168	.160	0.158
beta (MCA/OLS)	.086	-0.083	.036	-0.030	.110	0.107	.078	0.074	.063	0.060
adj. R-square	.280	0.279	.332	0.331	.239	0.238	.183	0.182	.212	0.211
Mean	5.88		3.34		1.62		1.59		2.02	
Standard Deviation	2.21		0.89		1.16		1.11		1.84	
Nos. of cases included (wtd.)	87692		87124		86726		83217		86760	
% of cases included (wtd.)	91.5%		90.9%		90.5%		86.9%		90.6%	
African Americans Total										
eta or Pearson	.047	-0.034	.059	-0.058	.079	0.071	.066	0.052	.124	0.122
beta (MCA/OLS)	.028	0.008	.035	-0.011	.044	0.041	.033	0.024	.080	0.076
adj. R-square	.127	0.122	.209	0.203	.109	0.104	.128	0.121	.198	0.193
Mean	5.12		3.41		1.23		1.31		1.85	
Standard Deviation	2.12		0.84		0.73		0.91		1.67	
Nos. of cases included (wtd.)	10227		10125		9919		9005		9847	
% of cases included (wtd.)	82.7%		81.9%		80.3%		72.9%		79.7%	
Hispanics Total										
eta or Pearson	.107	-0.103	.113	-0.109	.131	0.127	.140	0.120	.142	0.136
beta (MCA/OLS)	.053	-0.042	.035	-0.027	.077	0.073	.084	0.062	.081	0.073
adj. R-square	.196	0.191	.254	0.248	.134	0.128	.163	0.154	.208	0.201
Mean	5.03		3.18		1.41		1.70		2.11	
Standard Deviation	2.22		0.91		0.91		1.25		1.88	
Nos. of cases included (wtd.)	10448		10350		10247		9245		10193	
% of cases included (wtd.)	81.0%		80.2%		79.4%		71.7%		79.0%	
Asian Americans Total										
eta or Pearson	.210	-0.198	.153	-0.118	.125	0.108	.136	0.127	.140	0.131
beta (MCA/OLS)	.112	-0.090	.070	0.025	.042	0.026	.070	0.061	.077	0.055
adj. R-square	.308	0.290	.269	0.248	.239	0.221	.204	0.184	.216	0.195
Mean	6.58		3.66		1.35		1.26		1.53	
Standard Deviation	2.11		0.64		0.88		0.83		1.34	
Nos. of cases included (wtd.)	2405		2399		2373		2254		2374	
% of cases included (wtd.)	85.1%		84.9%		84.0%		79.8%		84.0%	

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Table 4B (Continued)
Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with descriptive statistics
10th Graders, 1991-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS
Whites Total										
eta or Pearson	.214	-0.212	.183	-0.181	.221	0.219	.170	0.168	.160	0.158
beta (MCA/OLS)	.086	-0.083	.036	-0.030	.110	0.107	.078	0.074	.063	0.060
adj. R-square	.280	0.279	.332	0.331	.239	0.238	.183	0.182	.212	0.211
Mean	5.88		3.34		1.62		1.59		2.02	
Standard Deviation	2.21		0.89		1.16		1.11		1.84	
nos. of cases included (wtd.)	87692		87124		86726		83217		86760	
% of cases included (wtd.)	91.5%		90.9%		90.5%		86.9%		90.6%	
White Males										
eta or Pearson	.189	-0.185	.175	-0.173	.210	0.206	.167	0.164	.120	0.118
beta (MCA/OLS)	.077	-0.071	.047	-0.037	.110	0.104	.088	0.081	.041	0.039
adj. R-square	.251	0.250	.336	0.335	.217	0.214	.186	0.183	.194	0.193
Mean	5.58		3.18		1.62		1.69		2.12	
Standard Deviation	2.24		0.95		1.19		1.21		1.95	
Nos. of cases included (wtd.)	44800		44440		44305		42188		44218	
% of cases included (wtd.)	90.4%		89.6%		89.4%		85.1%		89.2%	
White Females										
eta or Pearson	.218	-0.216	.153	-0.152	.240	0.240	.157	0.155	.204	0.198
beta (MCA/OLS)	.101	-0.099	.019	-0.018	.111	0.110	.065	0.064	.096	0.088
adj. R-square	.287	0.286	.284	0.283	.273	0.271	.173	0.172	.238	0.236
Mean	6.18		3.51		1.62		1.49		1.92	
Standard Deviation	2.13		0.78		1.13		0.99		1.71	
Nos. of cases included (wtd.)	42892		42684		42421		41029		42542	
% of cases included (wtd.)	92.8%		92.3%		91.7%		88.7%		92.0%	

Table 4B (Continued)
Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with descriptive statistics
10th Graders, 1991-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**	**MCA**	**OLS**
African Americans Total										
eta or Pearson	.047	-0.034	.059	-0.058	.079	0.071	.066	0.052	.124	0.122
beta (MCA/OLS)	.028	0.008	.035	-0.011	.044	0.041	.033	0.024	.080	0.076
adj. R-square	.127	0.122	.209	0.203	.109	0.104	.128	0.121	.198	0.193
Mean	5.12		3.41		1.23		1.31		1.85	
Standard Deviation	2.12		0.84		0.73		0.91		1.67	
Nos. of cases included (wtd.)	10227		10125		9919		9005		9847	
% of cases included (wtd.)	82.7%		81.9%		80.3%		72.9%		79.7%	
African-American Males										
eta or Pearson	.042	-0.036	.070	-0.052	.101	0.075	.087	0.070	.101	0.094
beta (MCA/OLS)	.017	0.003	.060	-0.012	.063	0.036	.047	0.038	.061	0.044
adj. R-square	.116	0.107	.207	0.195	.147	0.134	.147	0.135	.219	0.208
Mean	4.90		3.32		1.27		1.41		2.06	
Standard Deviation										
Nos. of cases included (wtd.)	5240		5174		5089		4560		5016	
% of cases included (wtd.)	80.6%		79.6%		78.3%		70.1%		77.1%	
African-American Females										
eta or Pearson	.068	-0.021	.084	-0.054	.070	0.059	.048	0.011	.160	0.155
beta (MCA/OLS)	.055	0.013	.063	-0.008	.053	0.044	.035	-0.009	.130	0.124
adj. R-square	.138	0.126	.212	0.199	.089	0.077	.116	0.103	.170	0.158
Mean	5.35		3.51		1.19		1.22		1.62	
Standard Deviation	2.11		0.79		0.64		0.73		1.36	
Nos. of cases included (wtd.)	4987		4951		4830		4445		4831	
% of cases included (wtd.)	85.2%		84.5%		82.5%		75.9%		82.5%	

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Table 4B (Continued)
Paid Work Intensity Predicting Academic and Substance Use Outcomes:
Standardized Bivariate and Multivariate MCA and OLS Regression Coefficients, with descriptive statistics
10th Graders, 1991-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS
Hispanics Total										
eta or Pearson	.107	-0.103	.113	-0.109	.131	0.127	.140	0.120	.142	0.136
beta (MCA/OLS)	.053	-0.042	.035	-0.027	.077	0.073	.084	0.062	.081	0.073
adj. R-square	.196	0.191	.254	0.248	.134	0.128	.163	0.154	.208	0.201
Mean	5.03		3.18		1.41		1.70		2.11	
Standard Deviation	2.22		0.91		0.91		1.25		1.88	
Nos. of cases included (wtd.)	10448		10350		10247		9245		10193	
% of cases included (wtd.)	81.0%		80.2%		79.4%		71.7%		79.0%	
Hispanic Males										
eta or Pearson	.091	-0.078	.108	-0.105	.154	0.149	.164	0.146	.149	0.138
beta (MCA/OLS)	.055	-0.029	.040	-0.029	.095	0.090	.108	0.082	.088	0.075
adj. R-square	.175	0.165	.257	0.248	.142	0.131	.190	0.175	.234	0.223
Mean	4.83		3.07		1.43		1.82		2.29	
Standard Deviation	2.23		0.95		0.97		1.37		2.03	
Nos. of cases included (wtd.)	5787		5723		5663		5096		5635	
% of cases included (wtd.)	79.5%		78.6%		77.8%		70.0%		77.4%	
Hispanic Females										
eta or Pearson	.127	-0.123	.101	-0.097	.097	0.091	.084	0.063	.127	0.118
beta (MCA/OLS)	.071	-0.060	.028	-0.022	.053	0.043	.052	0.029	.081	0.069
adj. R-square	.229	0.218	.241	0.230	.157	0.144	.134	0.119	.188	0.175
Mean	5.28		3.31		1.38		1.54		1.89	
Standard Deviation	2.19		0.85		0.84		1.07		1.65	
Nos. of cases included (wtd.)	4661		4627		4583		4149		4558	
% of cases included (wtd.)	82.9%		82.3%		81.6%		73.8%		81.1%	

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS	MCA	OLS
Asian Americans Total										
eta or Pearson	.210	-0.198	.153	-0.118	.125	0.108	.136	0.127	.140	0.131
beta (MCA/OLS)	.112	-0.090	.070	0.025	.042	0.026	.070	0.061	.077	0.055
adj. R-square	.308	0.290	.269	0.248	.239	0.221	.204	0.184	.216	0.195
Mean	6.58		3.66		1.35		1.26		1.53	
Standard Deviation	2.11		0.64		0.88		0.83		1.34	
Nos. of cases included (wtd.)	2405		2399		2373		2254		2374	
% of cases included (wtd.)	85.1%		84.9%		84.0%		79.8%		84.0%	
Asian-American Males										
eta or Pearson	.198	-0.174	.251	-0.141	.179	0.125	.168	0.150	.164	0.136
beta (MCA/OLS)	.112	-0.058	.118	0.004	.106	0.050	.112	0.088	.101	0.068
adj. R-square	.327	0.291	.380	0.337	.290	0.247	.269	0.227	.284	0.243
Mean	6.30		3.58		1.39		1.34		1.67	
Standard Deviation	2.13		0.71		0.98		0.96		1.55	
Nos. of cases included (wtd.)	1143		1140		1122		1069		1125	
% of cases included (wtd.)	84.0%		83.7%		82.4%		78.5%		82.6%	
Asian-American Females										
eta or Pearson	.218	-0.203	.153	-0.065	.125	0.078	.110	0.076	.160	0.105
beta (MCA/OLS)	.120	-0.104	.146	0.051	.073	0.008	.062	0.024	.106	0.029
adj. R-square	.338	0.309	.247	0.195	.284	0.247	.197	0.156	.244	0.200
Mean	6.84		3.73		1.30		1.19		1.40	
Standard Deviation	2.05		0.57		0.78		0.67		1.10	
Nos. of cases included (wtd.)	1261		1260		1251		1185		1249	
% of cases included (wtd.)	86.2%		86.0%		85.5%		80.9%		85.3%	

Table 5
Paid Work Intensity Predicting Academic and Substance Use Outcomes by Parental Education Level (1=Low, 3= High)*
Unstandardized Bivariate and Multivariate OLS Regression Coefficients, with Standard Errors (corrected for sample design effects)
12th Graders, 1976-2010

	Parent Education Level	GPA				College Plans				30-Day Cigarette Use				Heavy Drinking				Annual Marijuana Use			
		Bivariate	SE	Multi	SE	Bivariate	SE	Multi	SE	Bivariate	SE	Multi	SE	Bivariate	SE	Multi	SE	Bivariate	SE	Multi	SE
Total Sample	Level 1	-0.0897	0.0045	-0.0328	0.0040	-0.0629	0.0028	-0.0307	0.0022	0.0899	0.0034	0.0600	0.0030	0.0694	0.0034	0.0391	0.0030	0.0947	0.0048	0.0506	0.0041
	Level 2	-0.1818	0.0040	-0.0806	0.0036	-0.0996	0.0022	-0.0438	0.0017	0.1175	0.0028	0.0751	0.0025	0.0778	0.0029	0.0375	0.0026	0.1343	0.0045	0.0579	0.0038
	Level 3	-0.2349	0.0073	-0.1248	0.0070	-0.0870	0.0035	-0.0320	0.0030	0.1385	0.0054	0.0794	0.0049	0.1027	0.0059	0.0446	0.0052	0.1715	0.0084	0.0607	0.0076
Whites	Level 1	-0.1090	0.0053	-0.0316	0.0049	-0.0814	0.0031	-0.0382	0.0026	0.1100	0.0040	0.0741	0.0038	0.0774	0.0039	0.0434	0.0035	0.0978	0.0058	0.0477	0.0051
	Level 2	-0.1957	0.0043	-0.0874	0.0039	-0.1134	0.0023	-0.0476	0.0019	0.1403	0.0031	0.0839	0.0029	0.0925	0.0031	0.0389	0.0029	0.1503	0.0051	0.0576	0.0043
	Level 3	-0.2400	0.0081	-0.1370	0.0077	-0.0922	0.0038	-0.0388	0.0032	0.1584	0.0062	0.0873	0.0056	0.1136	0.0067	0.0432	0.0060	0.1915	0.0094	0.0627	0.0082
African Americans	Level 1	-0.0107	0.0110	-0.0068	0.0113	0.0097	0.0068	-0.0087	0.0059	0.0039	0.0061	0.0163	0.0061	0.0031	0.0071	0.0006	0.0070	0.0544	0.0113	0.0467	0.0111
	Level 2	-0.0356	0.0124	-0.0095	0.0110	-0.0253	0.0062	-0.0129	0.0052	0.0178	0.0053	0.0216	0.0048	0.0064	0.0064	0.0055	0.0064	0.0601	0.0118	0.0537	0.0107
	Level 3	-0.0513	0.0305	-0.0011	0.0268	-0.0517	0.0137	-0.0177	0.0122	0.0414	0.0179	0.0309	0.0159	0.0545	0.0210	0.0360	0.0160	0.0788	0.0332	0.0429	0.0314
Hispanics	Level 1	-0.0538	0.0124	-0.0315	0.0114	-0.0209	0.0077	-0.0101	0.0071	0.0395	0.0069	0.0293	0.0062	0.0551	0.0095	0.0433	0.0089	0.0666	0.0115	0.0558	0.0113
	Level 2	-0.1030	0.0148	-0.0534	0.0150	-0.0463	0.0083	-0.0198	0.0075	0.0470	0.0094	0.0259	0.0100	0.0367	0.0110	0.0173	0.0113	0.0751	0.0171	0.0374	0.0175
	Level 3	-0.1352	0.0415	-0.0772	0.0355	-0.0592	0.0219	-0.0044	0.0165	0.1026	0.0298	0.0614	0.0263	0.1045	0.0319	0.0316	0.0232	0.1937	0.0411	0.0915	0.0387
Asian Americans	Level 1	-0.1418	0.0298	-0.0742	0.0271	-0.0583	0.0131	-0.0289	0.0116	0.0866	0.0152	0.0545	0.0151	0.0750	0.0163	0.0368	0.0146	0.1312	0.0273	0.0688	0.0205
	Level 2	-0.2184	0.0230	-0.1267	0.0207	-0.0638	0.0104	-0.0204	0.0096	0.0949	0.0131	0.0581	0.0122	0.0690	0.0143	0.0345	0.0129	0.1388	0.0217	0.0682	0.0191
	Level 3	-0.2559	0.0355	-0.1445	0.0299	-0.0335	0.0124	-0.0040	0.0106	0.0895	0.0187	0.0369	0.0149	0.0929	0.0253	0.0409	0.0194	0.1170	0.0376	0.0271	0.0290

*Parental Education Level is an index of respondent's reports of their parents' level of schooling. Full details are in Appendix Table A1.
For complete details concerning the regression models shown here, see Appendix Table A2.

Table 5 (Continued)
Paid Work Intensity Predicting Academic and Substance Use Outcomes by Parental Education Level (1=Low, 3= High)*
Unstandardized Bivariate and Multivariate OLS Regression Coefficients, with Standard Errors (corrected for sample design effects)
10th Graders, 1991-2010

	Parent Education Level	GPA				College Plans				30-Day Cigarette Use				Heavy Drinking				Annual Marijuana Use			
		Bivariate	SE	Multi	SE	Bivariate	SE	Multi	SE	Bivariate	SE	Multi	SE	Bivariate	SE	Multi	SE	Bivariate	SE	Multi	SE
Total Sample	Level 1	-0.1311	0.0085	-0.0594	0.0083	-0.0552	0.0038	-0.0196	0.0036	0.0912	0.0055	0.0569	0.0050	0.0804	0.0052	0.0428	0.0049	0.1244	0.0076	0.0621	0.0071
	Level 2	-0.2294	0.0078	-0.1083	0.0073	-0.0589	0.0029	-0.0129	0.0027	0.1138	0.0044	0.0665	0.0038	0.0880	0.0042	0.0406	0.0040	0.1536	0.0069	0.0658	0.0062
	Level 3	-0.2549	0.0145	-0.1307	0.0142	-0.0520	0.0052	-0.0120	0.0047	0.1163	0.0083	0.0616	0.0082	0.1231	0.0089	0.0640	0.0084	0.1717	0.0129	0.0576	0.0126
Whites	Level 1	-0.1674	0.0104	-0.0806	0.0100	-0.0727	0.0048	-0.0215	0.0045	0.1286	0.0072	0.0697	0.0065	0.0983	0.0065	0.0468	0.0061	0.1425	0.0099	0.0560	0.0089
	Level 2	-0.2536	0.0085	-0.1259	0.0081	-0.0722	0.0035	-0.0147	0.0031	0.1424	0.0051	0.0751	0.0044	0.1049	0.0047	0.0465	0.0047	0.1719	0.0080	0.0682	0.0070
	Level 3	-0.2561	0.0169	-0.1484	0.0159	-0.0525	0.0061	-0.0109	0.0048	0.1548	0.0108	0.0758	0.0095	0.1519	0.0109	0.0685	0.0094	0.2005	0.0155	0.0738	0.0145
African Americans	Level 1	0.0093	0.0254	0.0419	0.0238	-0.0156	0.0106	-0.0127	0.0100	0.0306	0.0117	0.0322	0.0119	0.0210	0.0124	0.0147	0.0119	0.1053	0.0208	0.0935	0.0189
	Level 2	-0.0706	0.0208	-0.0210	0.0193	-0.0176	0.0083	-0.0021	0.0076	0.0223	0.0073	0.0078	0.0064	0.0225	0.0105	0.0039	0.0095	0.1024	0.0175	0.0561	0.0159
	Level 3	0.0034	0.0457	0.0072	0.0420	-0.0227	0.0123	-0.0128	0.0114	0.0221	0.0165	0.0067	0.0140	0.0450	0.0217	0.0286	0.0176	0.0905	0.0410	0.0442	0.0282
Hispanics	Level 1	-0.0689	0.0223	-0.0355	0.0212	-0.0410	0.0095	-0.0217	0.0086	0.0485	0.0101	0.0255	0.0093	0.0614	0.0131	0.0428	0.0121	0.1177	0.0189	0.0651	0.0161
	Level 2	-0.1116	0.0298	-0.0576	0.0278	-0.0255	0.0129	0.0045	0.0117	0.0864	0.0194	0.0523	0.0156	0.0795	0.0214	0.0269	0.0181	0.1571	0.0288	0.0920	0.0271
	Level 3	-0.1876	0.0709	-0.0967	0.0638	-0.0790	0.0283	-0.0167	0.0237	0.0700	0.0298	0.0056	0.0321	0.1414	0.0508	0.0556	0.0412	0.1254	0.0639	-0.0029	0.0502
Asian Americans	Level 1	-0.1896	0.0704	-0.0745	0.0593	-0.0696	0.0322	-0.0371	0.0211	0.0469	0.0441	0.0003	0.0230	0.0487	0.0289	0.0161	0.0205	0.0948	0.0446	0.0418	0.0301
	Level 2	-0.2075	0.0499	-0.1479	0.0436	-0.0088	0.0138	0.0281	0.0148	0.0562	0.0243	0.0354	0.0245	0.0561	0.0194	0.0198	0.0175	0.0982	0.0363	0.0384	0.0315
	Level 3	-0.1633	0.0583	-0.0851	0.0488	-0.0073	0.0120	0.0119	0.0118	0.0459	0.0264	0.0269	0.0266	0.1030	0.0299	0.0676	0.0264	0.1218	0.0403	0.0646	0.0321

*Parental Education Level is an index of respondent's reports of their parents' level of schooling. Full details are in Appendix Table A1.
For complete details concerning the regression models shown here, see Appendix Table A2.

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Table 6*
Paid Work Intensity Predicting Age 21/22 and Age 29/30 Academic and Substance Use Outcomes
by Race/Ethnicity: 12th Graders

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Age 18 Part-time Work with Later Outcomes — *Age 21/22 Outcomes*

Total Sample results — *from TABLE 6 in Developmental Psychology 47(2):344-63***

Graduating Classes: 1976–2003
Outcome Data Collected: 1979–2007

Outcome	Group	Pearson	Standardized Regression Coefficient	Probability Value	Pearson	Standardized Regression Coefficient	Significance
Years of Schooling (work collapsed*)**	African Americans	-0.104	-0.077	0.0003			
	Whites	-0.253	-0.103	<.0001			
	Hispanics	-0.154	-0.074	0.0008	-.227	-.097	***
	Mexican-Ams or Chicanos	-0.114	-0.045	0.0861			
	Other Latin Ams	-0.207	-0.123	0.0034			
30-Day Cigarette Use	African Americans	0.029	0.057	0.0002			
	Whites	0.133	0.070	<.0001			
	Hispanics	0.036	0.030	0.0575	.115	.065	***
	Mexican-Ams or Chicanos	0.047	0.031	0.1031			
	Other Latin Ams	0.043	0.027	0.3923			
2-Wk Heavy Drinking	African Americans	-0.019	-0.009	0.5634			
	Whites	0.015	-0.009	0.0712			
	Hispanics	0.011	-0.010	0.6180	.014	-.007	
	Mexican-Ams or Chicanos	0.019	-0.001	0.9759			
	Other Latin Ams	-0.038	-0.040	0.2496			
Annual Marijuana Use	African Americans	0.011	0.013	0.6042			
	Whites	0.036	-0.003	0.6433			
	Hispanics	-0.013	-0.019	0.4873	.032	.000	
	Mexican-Ams or Chicanos	-0.024	-0.026	0.4120			
	Other Latin Ams	0.016	0.000	0.9948			
Annual Cocaine Use	African Americans	-0.016	-0.003	0.7458			
	Whites	0.040	0.005	0.1617			
	Hispanics	0.026	0.006	0.6825	.035	.005	
	Mexican-Ams or Chicanos	-0.015	-0.020	0.3138			
	Other Latin Ams	0.120	0.065	0.0407			

Age 18 Part-time Work with Later Outcomes — *Age 29/30 Outcomes*

Total Sample results — *from TABLE 6 in Developmental Psychology 47(2):344-63***

Graduating Classes: 1976–1995
Outcome Data Collected: 1987–2007

Outcome	Group	Pearson	Standardized Regression Coefficient	Probability Value	Pearson	Standardized Regression Coefficient	Significance
Years of Schooling (work collapsed*)**	African Americans	-0.035	-0.029	0.4763			
	Whites	-0.244	-0.099	<.0001			
	Hispanics	-0.218	-0.119	0.0132	-.222	-.093	***
	Mexican-Ams or Chicanos	-0.219	-0.111	0.0370			
	Other Latin Ams	-0.176	-0.108	0.3170			
30-Day Cigarette Use	African Americans	-0.037	0.010	0.6674			
	Whites	0.120	0.059	<.0001			
	Hispanics	0.085	0.063	0.0115	.113	.061	***
	Mexican-Ams or Chicanos	0.090	0.062	0.0151			
	Other Latin Ams	0.106	0.113	0.1011			
2-Wk Heavy Drinking	African Americans	0.010	0.018	0.3870			
	Whites	0.032	-0.008	0.0887			
	Hispanics	0.011	-0.005	0.8413	.032	-.005	
	Mexican-Ams or Chicanos	0.084	0.068	0.0226			
	Other Latin Ams	-0.228	-0.242	<.0001			
Annual Marijuana Use	African Americans	0.004	-0.003	0.9002			
	Whites	0.029	-0.006	0.4550			
	Hispanics	0.001	-0.026	0.4283	.032	.000	
	Mexican-Ams or Chicanos	0.012	-0.023	0.5386			
	Other Latin Ams	-0.022	-0.055	0.4509			
Annual Cocaine Use	African Americans	-0.009	-0.002	0.8924			
	Whites	0.030	0.001	0.7945			
	Hispanics	0.024	0.001	0.9708	.034	.007	
	Mexican-Ams or Chicanos	0.028	-0.005	0.8012			
	Other Latin Ams	0.019	-0.038	0.3449			

*For complete details concerning the regression models shown here, see Appendix Table A2.

**Bachman, J.G., Staff, J., O'Malley, P.M., Schulenberg, J.E., & Freedman-Doan, P. (2011). Twelfth-grade student work intensity linked to later educational attainment and substance use: New longitudinal evidence. Developmental Psychology 47(2):344-63. dx.doi.org/10.1037/a0021027

***The first three categories in the hours of paid work scale (1-15 hours) were collapsed in order to maintain a linear relation between work hours and years of schooling

Table 7

Descriptive Statistics and Correlations with Paid Work for Academic Attainment and Aspirations, and Substance Use at 12th Grade by Number of Parents in the Home: 1976-2010*

Total Sample: wtd N = 422,038

	Mean: Total	Mean: Zero Parents	Mean: One Parent	Mean: Two Parents	T-test for difference in means: one parent vs two parents. Pr> |t|	Pearson Correlations with Paid Work: Total	Pearson Correlations with Paid Work: Zero Parents	Pearson Correlations with Paid Work: One Parent	Pearson Correlations with Paid Work: Two Parents
12th grade GPA	5.91	5.35	5.66	6.04	<.0001	-0.160	-0.027	-0.094	-0.182
Plans to complete a 4-year college	2.97	2.56	2.98	3.01	<.0001	-0.176	-0.067	-0.112	-0.194
30 day cigarette use	1.79	2.15	1.82	1.75	<.0001	0.151	0.102	0.104	0.163
Heavy drinking in the last 2 weeks	1.87	2.05	1.84	1.86	<.0001	0.104	0.073	0.062	0.116
Marijuana use in the last 12 months	2.41	2.78	2.56	2.33	<.0001	0.102	0.062	0.067	0.108
Paid work hours (per week)	7.15	7.74	7.28	7.06	<.0001				
		6.0% of the total sample	21.1% of total sample	72.9% of the total sample					

Whites: wtd N = 318,926 (76.9% of the total sample)

|	Mean: Total	Mean: Zero Parents	Mean: One Parent	Mean: Two Parents	T-test for difference in means: one parent vs two parents. Pr> |t|	Pearson Correlations with Paid Work: Total	Pearson Correlations with Paid Work: Zero Parents	Pearson Correlations with Paid Work: One Parent	Pearson Correlations with Paid Work: Two Parents
12th grade GPA	6.04	5.40	5.81	6.13	<.0001	-0.182	-0.046	-0.126	-0.193
Plans to complete a 4-year college	2.96	2.45	2.94	2.99	<.0001	-0.208	-0.082	-0.163	-0.216
30 day cigarette use	1.87	2.41	2.02	1.80	<.0001	0.178	0.110	0.142	0.181
Heavy drinking in the last 2 weeks	1.94	2.19	2.00	1.91	<.0001	0.119	0.057	0.086	0.125
Marijuana use in the last 12 months	2.48	3.00	2.77	2.38	<.0001	0.111	0.037	0.080	0.113
Paid work hours (per week)	7.11	7.84	7.26	7.02	<.0001				
		4.6% of the whites only sub-sample	18.6% of the whites only sub-sample	76.8% of the whites only sub-sample					

African-Americans: wtd N = 38,551 (9.3% of the total sample)

	Mean: Total	Mean: Zero Parents	Mean: One Parent	Mean: Two Parents	T-test for difference in means: one parent vs two parents. Pr> |t|	Pearson Correlations with Paid Work: Total	Pearson Correlations with Paid Work: Zero Parents	Pearson Correlations with Paid Work: One Parent	Pearson Correlations with Paid Work: Two Parents
12th grade GPA	5.33	5.12	5.25	5.47	<.0001	-0.023	0.024	-0.004	-0.049
Plans to complete a 4-year college	3.06	2.82	3.06	3.12	<.0001	-0.014	0.025	0.014	-0.042
30 day cigarette use	1.34	1.52	1.32	1.32	0.694	0.022	0.034	-0.015	0.050
Heavy drinking in the last 2 weeks	1.36	1.53	1.33	1.35	0.254	0.013	0.034	-0.022	0.035
Marijuana use in the last 12 months	1.99	2.24	1.97	1.94	0.201	0.059	0.067	0.033	0.077
Paid work hours (per week)	7.27	7.44	7.31	7.19	<.0001				
		11.7% of the African-Americans only sub-sample	43.7% of the African-Americans only sub-sample	44.6% of the African-Americans only sub-sample					

*Only respondents who reported paid work during the senior year are included in these analyses.

Table 7 (Continued)

Descriptive Statistics and Correlations with Paid Work for Academic Attainment and Aspirations, and Substance Use at 12th Grade by Number of Parents in the Home: 1976-2010*

Hispanics: wtd N = 29,802 (7.2% of the total sample)

	Mean: Total	Mean: Zero Parents	Mean: One Parent	Mean: Two Parents	T-test for difference in means: one parent vs two parents. Pr> |t|	Pearson Correlations with Paid Work: Total	Pearson Correlations with Paid Work: Zero Parents	Pearson Correlations with Paid Work: One Parent	Pearson Correlations with Paid Work: Two Parents
12th grade GPA	5.51	5.35	5.45	5.55	0.001	-0.073	0.020	-0.052	-0.095
Plans to complete a 4-year college	2.97	2.62	3.02	3.00	0.188	-0.061	-0.036	-0.028	-0.066
30 day cigarette use	1.48	1.74	1.46	1.44	0.239	0.077	0.064	0.051	0.079
Heavy drinking in the last 2 weeks	1.75	1.96	1.72	1.72	0.882	0.074	0.057	0.038	0.084
Marijuana use in the last 12 months	2.15	2.39	2.25	2.08	<.0001	0.073	0.046	0.042	0.086
Paid work hours (per week)	7.38	7.76	7.33	7.34	0.870				
		9.5% of the Hispanics only sub-sample	24.9% of the Hispanics only sub-sample	65.6% of the Hispanics only sub-sample					

Asian-Americans: wtd N = 9,441 (2.3% of the total sample)

	Mean: Total	Mean: Zero Parents	Mean: One Parent	Mean: Two Parents	T-test for difference in means: one parent vs two parents. Pr> |t|	Pearson Correlations with Paid Work: Total	Pearson Correlations with Paid Work: Zero Parents	Pearson Correlations with Paid Work: One Parent	Pearson Correlations with Paid Work: Two Parents
12th grade GPA	6.48	6.25	6.23	6.55	<.0001	-0.196	-0.026	-0.149	-0.217
Plans to complete a 4-year college	3.50	3.21	3.42	3.55	<.0001	-0.136	-0.058	-0.088	-0.149
30 day cigarette use	1.44	1.72	1.49	1.41	0.003	0.155	0.107	0.141	0.161
Heavy drinking in the last 2 weeks	1.40	1.53	1.47	1.38	0.001	0.128	0.127	0.081	0.134
Marijuana use in the last 12 months	1.76	1.95	1.88	1.71	0.000	0.130	0.126	0.133	0.126
Paid work hours (per week)	6.82	7.19	6.98	6.75	<.0001				
		6.4% of the Asian-Americans only sub-sample	16.9% of the Asian-Americans only sub-sample	76.7% of the Asian-Americans only sub-sample					

*Only respondents who reported paid work during the senior year are included in these analyses.

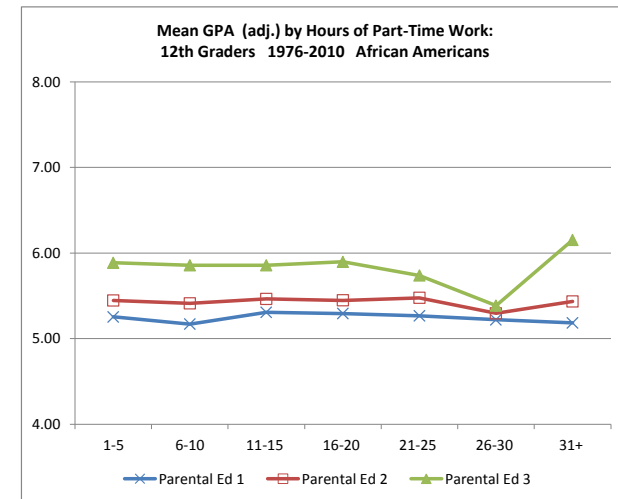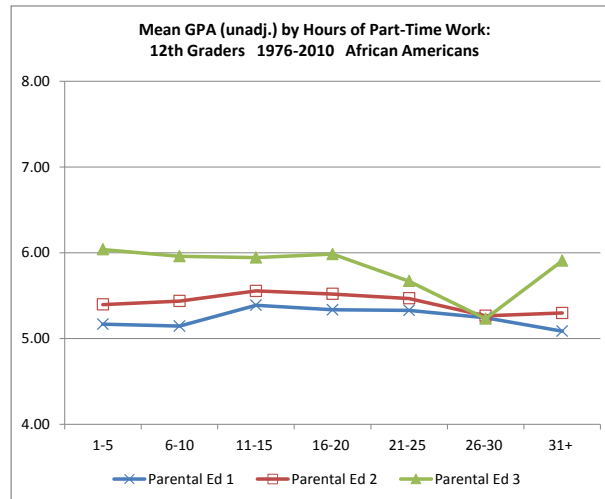**Figure 1**
Mean GPA (unadjusted and adjusted) by Hours of Part-Time Work and Level of Parental Education (1=low, 3=high)*:
12th Graders, 1976-2010
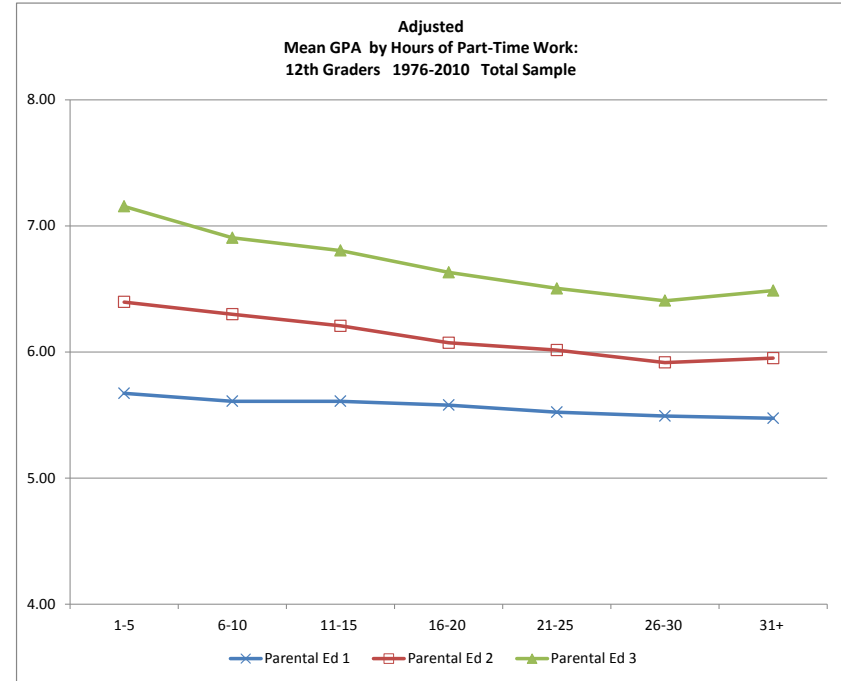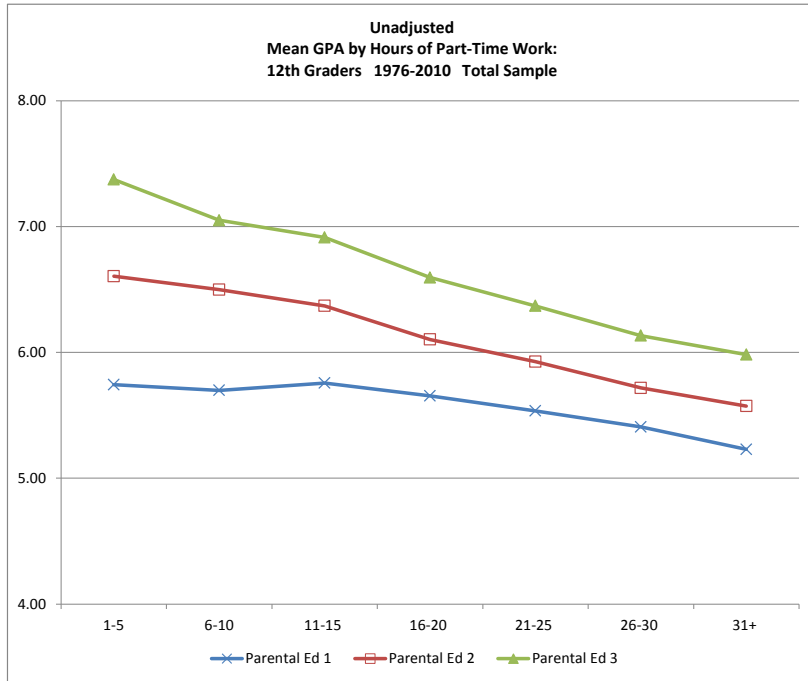
*For complete details concerning the regression models shown here, see Appendix Table A2.

Total Sample GPA	Unadjusted Parental Education		
	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	5.74	6.61	7.38
6-10	5.70	6.50	7.05
11-15	5.76	6.37	6.91
16-20	5.65	6.10	6.60
21-25	5.54	5.93	6.37
26-30	5.41	5.72	6.13
31+	5.23	5.57	5.98

Total Sample GPA	Adjusted Parental Education		
	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	5.67	6.40	7.15
6-10	5.61	6.30	6.90
11-15	5.61	6.21	6.80
16-20	5.58	6.07	6.63
21-25	5.52	6.01	6.50
26-30	5.49	5.92	6.41
31+	5.47	5.95	6.49

Whites GPA — Unadjusted

	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	5.92	6.75	7.44
6-10	5.86	6.63	7.11
11-15	5.83	6.45	6.98
16-20	5.72	6.19	6.66
21-25	5.60	6.01	6.45
26-30	5.45	5.80	6.25
31+	5.29	5.62	5.96

Whites GPA — Adjusted

	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	5.75	6.51	7.24
6-10	5.71	6.40	6.97
11-15	5.68	6.30	6.89
16-20	5.65	6.17	6.71
21-25	5.61	6.11	6.59
26-30	5.56	6.02	6.52
31+	5.57	6.03	6.45
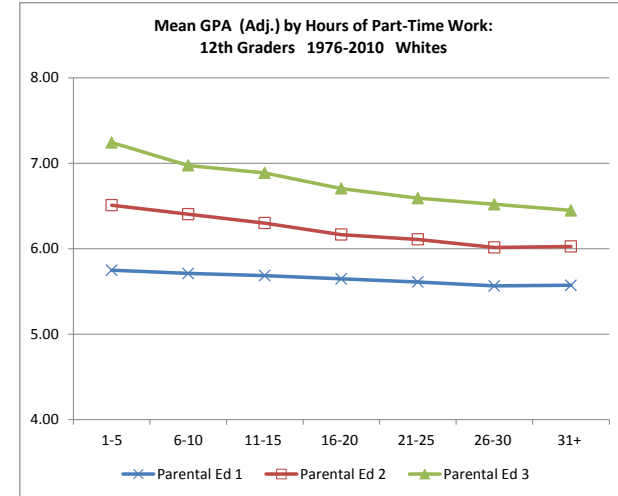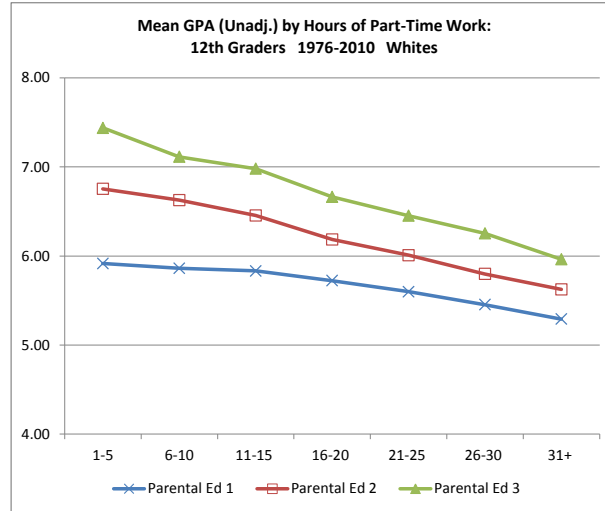
African Americans GPA — Unadjusted

	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	5.17	5.40	6.04
6-10	5.14	5.44	5.96
11-15	5.39	5.55	5.94
16-20	5.34	5.52	5.98
21-25	5.33	5.47	5.67
26-30	5.24	5.26	5.23
31+	5.08	5.30	5.91

African Americans GPA — Adjusted

	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	5.25	5.45	5.89
6-10	5.17	5.41	5.86
11-15	5.31	5.46	5.86
16-20	5.29	5.45	5.90
21-25	5.27	5.48	5.74
26-30	5.22	5.29	5.39
31+	5.18	5.43	6.15

Mean GPA (Unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Whites

Mean GPA (Adj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Whites

Mean GPA (unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 African Americans

Mean GPA (adj.) by Hours of Part-Time Work: 12th Graders 1976-2010 African Americans

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Hispanics Unadjusted GPA

	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	5.53	6.04	6.98
6-10	5.37	6.11	6.68
11-15	5.51	6.02	6.72
16-20	5.47	5.73	6.16
21-25	5.41	5.53	6.22
26-30	5.34	5.47	5.82
31+	5.12	5.65	6.18

Hispanics Adjusted GPA

	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	5.48	5.94	6.80
6-10	5.38	5.91	6.40
11-15	5.44	5.91	6.66
16-20	5.43	5.74	6.22
21-25	5.38	5.57	6.17
26-30	5.35	5.58	6.04
31+	5.25	5.79	6.46
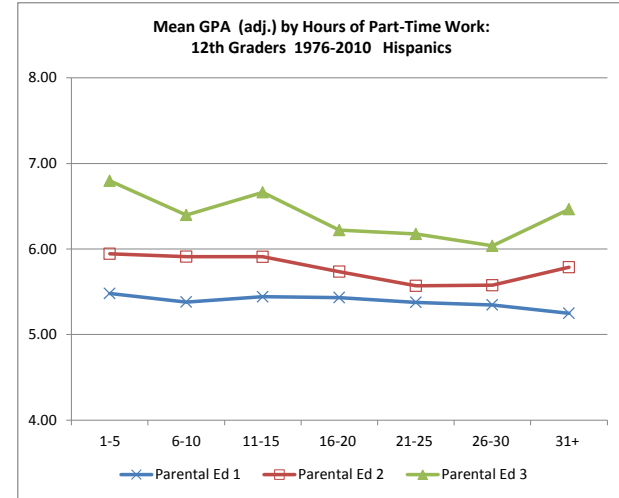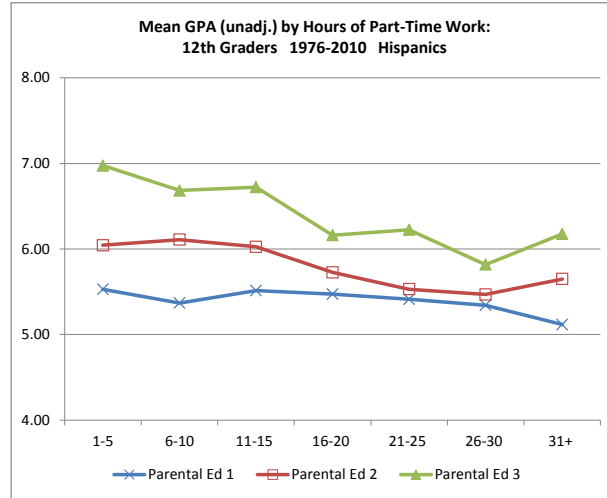
Asian Americans Unadjusted GPA

	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	6.70	7.07	7.69
6-10	6.62	6.87	7.36
11-15	6.55	6.68	7.21
16-20	6.32	6.41	6.94
21-25	5.88	6.17	6.63
26-30	5.97	5.90	6.38
31+	6.03	5.98	6.33

Asian Americans Adjusted GPA

	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	6.56	6.87	7.42
6-10	6.53	6.77	7.30
11-15	6.36	6.53	7.20
16-20	6.31	6.44	6.95
21-25	5.93	6.24	6.85
26-30	6.17	6.16	6.57
31+	6.26	6.27	6.72

Mean GPA (unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Hispanics

Mean GPA (adj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Hispanics

Mean GPA (unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Asian Americans

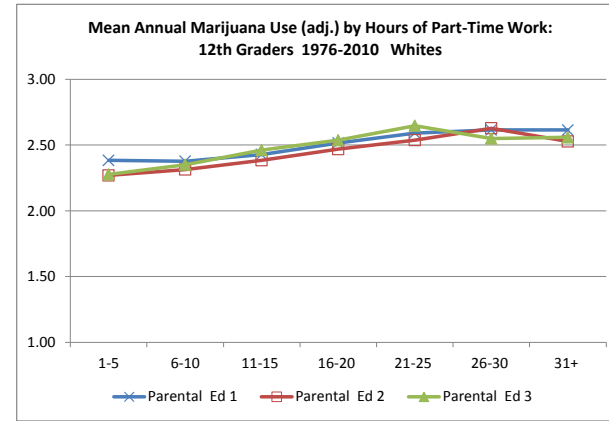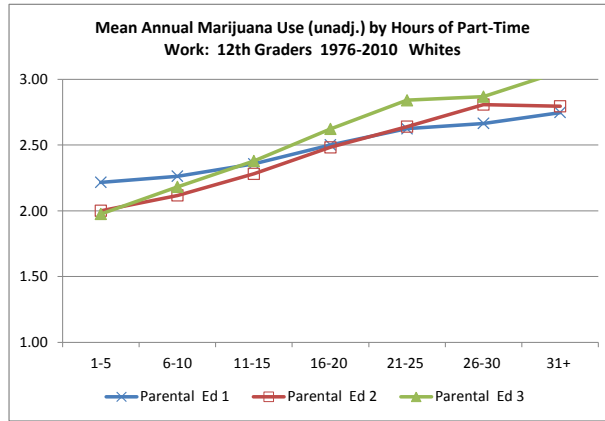Mean GPA (adj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Asian Americans
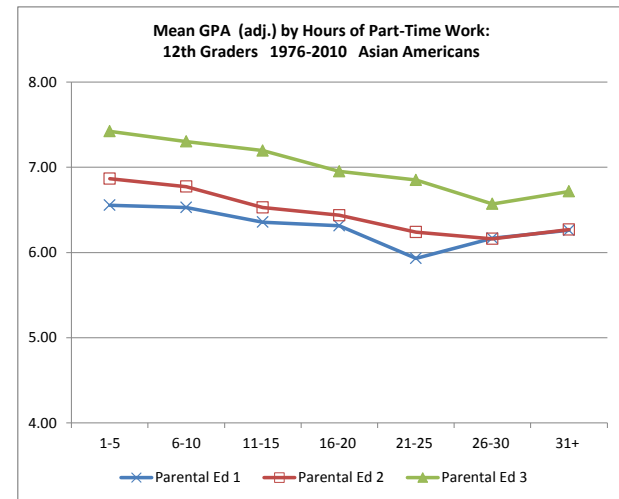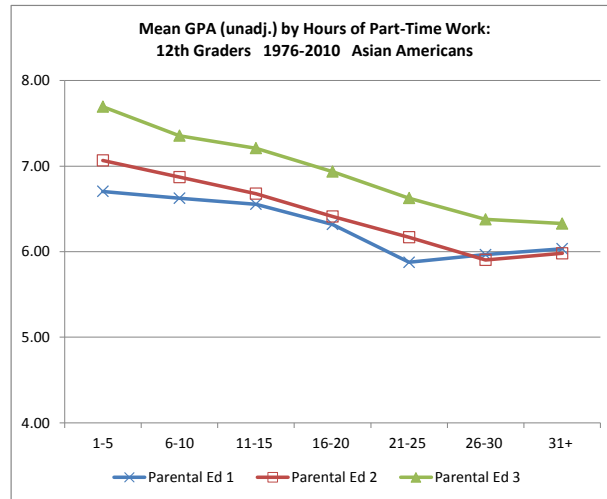
Figure 2
Mean Annual Marijuana Use (unadjusted and adjusted) by Hours of Part-Time Work and Level of Parental Education (1=low, 3=high):
12th Graders, 1976-2010
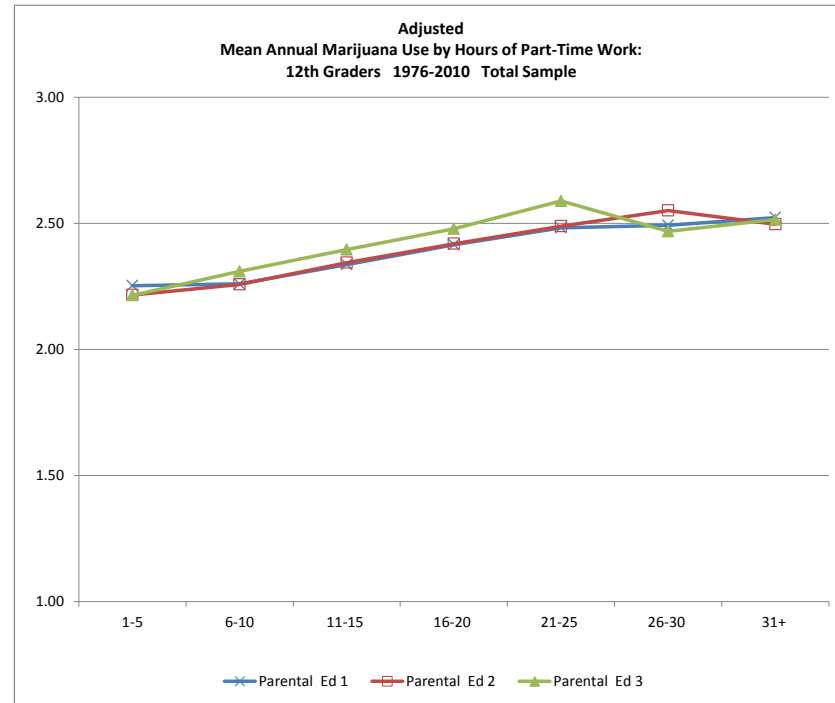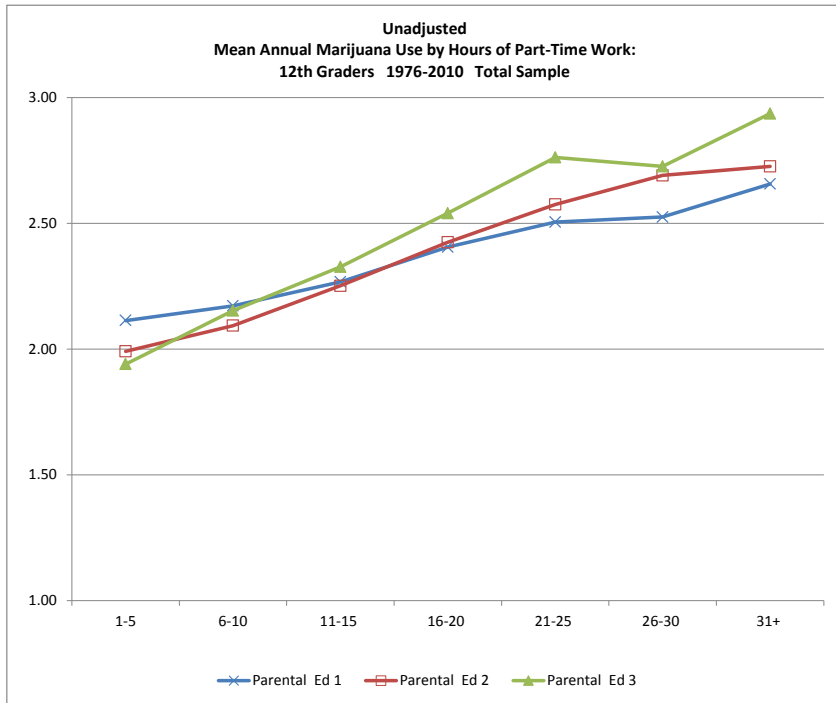
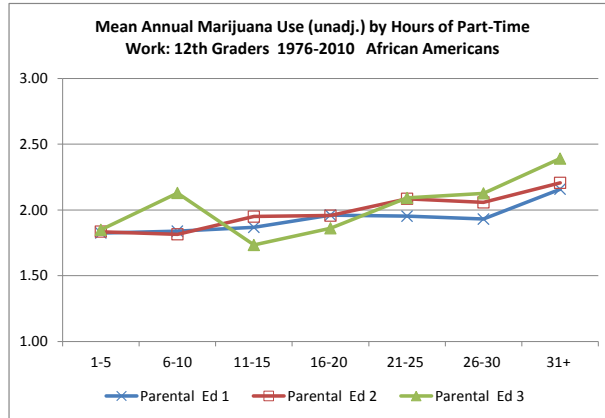| Total Sample	Unadjusted		
Annual Marijuana	Parental Education		
	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	2.11	1.99	1.94
6-10	2.17	2.09	2.15
11-15	2.27	2.25	2.33
16-20	2.40	2.42	2.54
21-25	2.50	2.57	2.76
26-30	2.52	2.69	2.73
31+	2.66	2.73	2.94

Total Sample	Adjusted		
Annual Marijuana	Parental Education		
	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	2.25	2.22	2.21
6-10	2.26	2.26	2.31
11-15	2.34	2.34	2.40
16-20	2.42	2.42	2.48
21-25	2.48	2.49	2.59
26-30	2.49	2.55	2.47
31+	2.52	2.50	2.52

Whites	Unadjusted		
Annual Marijuana	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	2.22	2.00	1.98
6-10	2.26	2.12	2.18
11-15	2.36	2.28	2.38
16-20	2.50	2.48	2.62
21-25	2.62	2.64	2.84
26-30	2.66	2.81	2.87
31+	2.75	2.80	3.06

Whites	Adjusted		
Annual Marijuana	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	2.38	2.27	2.28
6-10	2.38	2.31	2.35
11-15	2.43	2.39	2.46
16-20	2.52	2.47	2.54
21-25	2.59	2.54	2.65
26-30	2.61	2.63	2.55
31+	2.61	2.53	2.56

Mean Annual Marijuana Use (unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010   Whites

Mean Annual Marijuana Use (adj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Whites

African Americans	Unadjusted		
Annual Marijuana	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	1.83	1.84	1.85
6-10	1.84	1.81	2.13
11-15	1.87	1.95	1.73
16-20	1.96	1.96	1.86
21-25	1.95	2.09	2.09
26-30	1.93	2.06	2.13
31+	2.16	2.21	2.39

African Americans	Adjusted		
Annual Marijuana	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	1.79	1.77	1.84
6-10	1.79	1.81	2.08
11-15	1.90	1.99	1.86
16-20	1.99	2.03	2.02
21-25	2.01	2.07	2.04
26-30	1.98	2.07	2.05
31+	2.07	2.11	2.19

Mean Annual Marijuana Use (unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010   African Americans

Mean Annual Marijuana Use (adj.) by Hours of Part-Time Work: 12th Graders 1976-2010 African Americans

Hispanics — Unadjusted

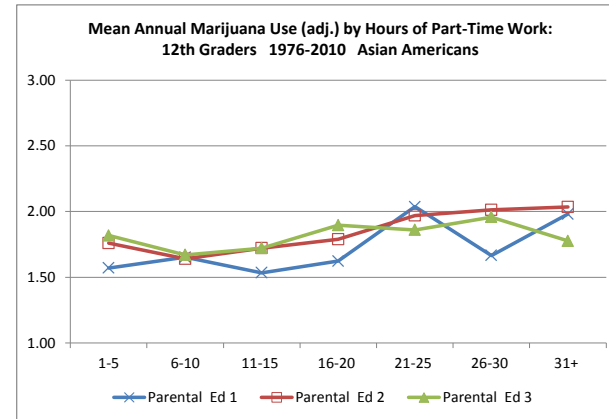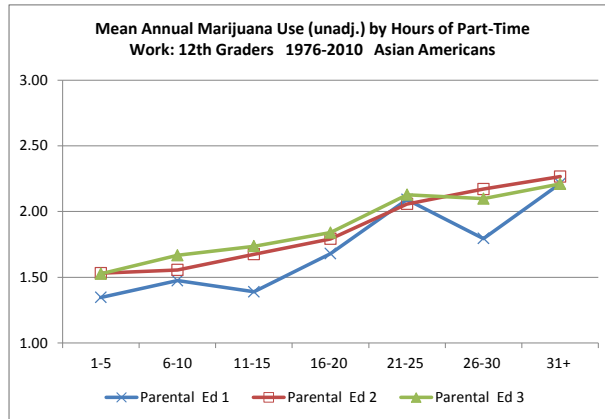| Annual Marijuana	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	1.76	2.09	1.65
6-10	2.04	2.00	1.82
11-15	2.01	2.22	2.29
16-20	2.08	2.37	2.11
21-25	2.06	2.37	2.40
26-30	2.10	2.36	2.52
31+	2.35	2.52	2.91
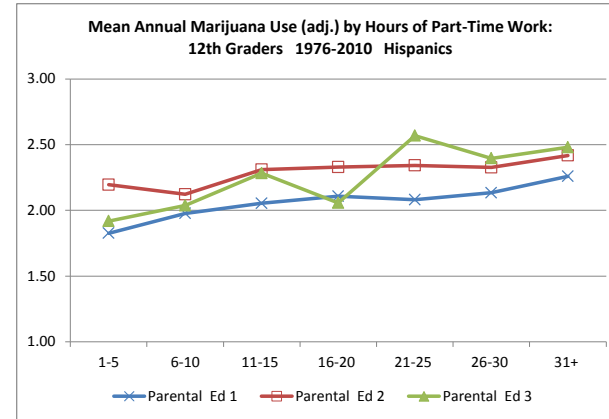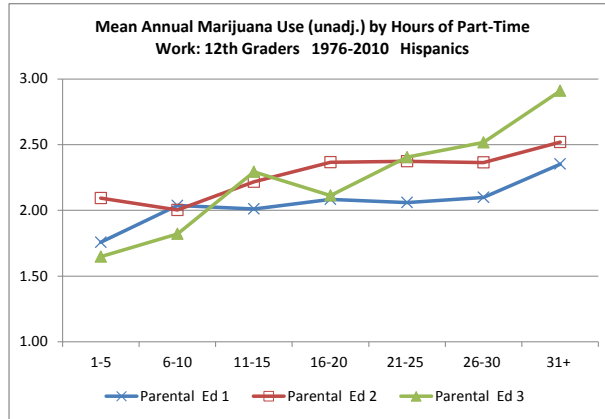
Hispanics — Adjusted

Annual Marijuana	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	1.83	2.20	1.92
6-10	1.98	2.12	2.04
11-15	2.05	2.31	2.28
16-20	2.11	2.33	2.06
21-25	2.08	2.34	2.57
26-30	2.13	2.33	2.40
31+	2.26	2.42	2.48

Mean Annual Marijuana Use (unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Hispanics

Mean Annual Marijuana Use (adj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Hispanics

Asian Americans — Unadjusted

Annual Marijuana	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	1.35	1.53	1.53
6-10	1.47	1.55	1.67
11-15	1.39	1.68	1.74
16-20	1.68	1.79	1.84
21-25	2.09	2.06	2.13
26-30	1.79	2.17	2.10
31+	2.21	2.27	2.21

Asian Americans — Adjusted

Annual Marijuana	Parental Ed 1	Parental Ed 2	Parental Ed 3
1-5	1.57	1.76	1.82
6-10	1.65	1.64	1.67
11-15	1.53	1.72	1.72
16-20	1.62	1.79	1.90
21-25	2.04	1.97	1.86
26-30	1.67	2.01	1.96
31+	1.98	2.03	1.78

Mean Annual Marijuana Use (unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Asian Americans

Mean Annual Marijuana Use (adj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Asian Americans

Appendix Table A1
Question Texts and Response Categories

Work Grade 10

On the average over the school year, how many hours per week do you work in a paid job?

1	None
2	5 or less hours per week
3	6 to 10 hours per week
4	11 to 15 hours per week
5	16 to 20 hours per week
6	21 to 25 hours per week
7	26 to 30 hours per week
8	More than 30 hours per week

Work Grade 12

Hours of paid work is calculated by excluding all who say they receive no money (see the second question below) from a job.

On the average over the school year, how many hours per week do you work in a paid or unpaid job?

1	None
2	5 or less hours per week
3	6 to 10 hours per week
4	11 to 15 hours per week
5	16 to 20 hours per week
6	21 to 25 hours per week
7	26 to 30 hours per week
8	More than 30 hours per week

During an average week, how much money do you get from a job or other work?

1	None
2	$1 - 5
3	$6 - 10
4	$11 - 20
5	$21 - 35
6	$36 - 50
7	$51 - 75
8	$76 - 125
9	$126 -175
10	$176+

Race/Ethnicity

Race/Ethnicity is recoded from the question below. "Black or African-American" was coded "African-American"; "Mexican American or Chicano," "Cuban American," "Puerto Rican," and "Other Hispanic or Latino" were combined and coded "Hispanic"; "Asian American" was coded "Asian-American"; "American Indian or Alaska Native," "Native Hawaiian or Other Pacific Islander," and multiple selections were coded "Other race"; and "White (Caucasian)" was coded "White."

How do you describe yourself? (Select one or more responses.)

1	Black or African American
2	Mexican American or Chicano
3	Cuban American
4	Puerto Rican
5	Other Hispanic or Latino
6	Asian American
7	White (Caucasian)

8   American Indian or Alaska Native
9   Native Hawaiian or Other Pacific Islander

Parents' (combined) Education Level

Parents' Education Level is an average of the father and mother's data (see question text below). Each level (1-6, level 7 was treated as missing data) was multiplied by 10, summed with the response for the other parent, and divided by the number of parents for whom the respondent supplied data (thus, missing data was allowed on one variable). The resulting whole numbers (10, 15, 20, 30, 35, etc up to 60) produces an 11 level scale.

For some OLS regression and MCA analyses and related figures, the 11-category measure was bracketed to a 5 category measure:

1= 10, 15, and 20
2= 25 and 30
3= 35 and 40
4= 45 and 50
5= 55 and 60

For some OLS regression and MCA analyses and related figures, the 11-category measure was bracketed to a 3-category measure: Low, Middle, and High SES. The 11-category measure was bracketed in the following manner:

Low SES = 10, 15, 20, 25, 30
Middle SES = 35, 40, 45, 50
High SES = 55, 60

The next three questions ask about your parents. If you were raised mostly by foster parents, stepparents, or others, answer for them. For example, if you have both a stepfather and a natural father, answer for the one that was the most important in raising you.

What is the highest level of schooling your father completed?
1   Completed grade school or less
2   Some high school
3   Completed high school
4   Some college
5   Completed college
6   Graduate or professional school after college
7   Don't know, or does not apply

What is the highest level of schooling your mother completed?
1   Completed grade school or less
2   Some high school
3   Completed high school
4   Some college
5   Completed college
6   Graduate or professional school after college
7   Don't know, or does not apply

GPA

Which of the following best describes your average grade so far in high school?
9   A (93–100)
8   A- (90–92)
7   B+ (87–89)
6   B (83–86)
5   B- (80–82)
4   C+ (77–79)
3   C (73–76)
2   C- (70–72)
1   D (69 or below)

College Plans

> How likely is it that you will graduate from college (four-year program)?
> 1   Definitely won't
> 2   Probably won't
> 3   Probably will
> 4   Definitely will

Cigarette Use

> How frequently have you smoked cigarettes during the past 30 days?
> 1   Not at all
> 2   Less than one cigarette per day
> 3   One to five cigarettes per day
> 4   About one-half pack per day
> 5   About one pack per day
> 6   About one and one-half packs per day
> 7   Two packs or more per day

Heavy Drinking

> Think back over the LAST TWO WEEKS. How many times have you had five or more drinks in a row? (A "drink" is a glass of wine, a bottle of beer, a wine cooler, a shot glass of liquor, or a mixed drink.)
> 1   None
> 2   Once
> 3   Twice
> 4   Three to five times
> 5   Six to nine time
> 6   Ten or more times

Marijuana Use

> On how many occasions (if any) have you used marijuana (weed, pot) or hashish (hash, hash oil) during the last 12 months?
> 1   0 occasions
> 2   1–2
> 3   3–5
> 4   6–9
> 5   10–19
> 6   20–39
> 7   40 or more

Region

> Region is not supplied by the respondent. MTF samples divide the country into:
>
> 1   Northeast
> 2   North central
> 3   South
> 4   West

Urbanicity

> Population Density is not supplied by the respondent. MTF samples divide respondents into 3 mutually exclusive groups based upon, and defined in terms of United States Census Metropolitan Statistical Areas (MSAs):
> 1   Large MSAs
> 2   Other MSAs
> 3   Non-MSAs

Number of Parents in Home

Number of Parents in the Home was re-coded from the following variable.

If father or mother was checked, 1 (one parent in the home) was coded; if father and mother were both checked, 2 (two parents in the home) was coded. All other valid responses were coded as 0 (no parents in the home).

Which of the following people live in the same household with you? (Mark ALL that apply.)

- A.   Father (or stepfather)
- B.   Mother (or stepmother)
- C.   Brothers (or stepbrothers)
- D.   Sisters (or stepsisters)
- E.   Grandparent(s)
- F.   Other relative(s)
- G.   Nonrelative(s)
- H.   I live alone

Truancy

During the LAST FOUR WEEKS, how many whole days of school have you missed because you skipped or "cut"?

- 1   None
- 2   1 day
- 3   2 days
- 4   3 days
- 5   4 or more

Evenings out for fun and recreation

During a typical week, on how many evenings do you go out for fun and recreation?
- 1   Less than one evening per week
- 2   One evening
- 3   Two evenings
- 4   Three evenings
- 5   Four or five evenings
- 6   Six or seven evenings per week

Mother's work status

The item on mother's work was recoded. If 1 was checked then mother's work status was coded 0. If any other valid response was checked then mother's work status was coded 1.

Did your mother have a paid job (half-time or more) during the time you were growing up?

- 1   No
- 2   Yes, some of the time when I was growing up
- 3   Yes, most of the time
- 4   Yes, all or nearly all of the time

Appendix Table A2
MODELS*

Samples and Subgroups:	Total	Gender (Male/Female)	Race (W,Af,H,As)	Race X Gender	Total	Gender (Male/Female)	Race (W,Af,H,As)	Race X Gender
Outcome:	GPA	GPA	GPA	GPA	All other outcomes	All other outcomes	All other outcomes	All other outcomes
Predictors**								
Work								
12th grade version 1 (include "no work")	x	x	x	x	x	x	x	x
12th grade version 2 (paid work only)	x	x	x	x	x	x	x	x
10th grade version 1 (include "no work")	x	x	x	x	x	x	x	x
10th grade version 2 (paid work only)	x	x	x	x	x	x	x	x
Urbanicity (3 levels: Other MSAs used as comparison category)	x	x	x	x	x	x	x	x
Number of Parents (0,1, or 2: two-parent families used as comparison category)	x	x	x	x	x	x	x	x
Parental Education Index** (5 levels, 1=Low: level 5 used as comparison category)	x	x	x	x	x	x	x	x
Truancy Index (5 levels, 1 = Low: level 5 used as comparison category)	x	x	x	x	x	x	x	x
Year of Administration (1976-2010 for grade 12: 1976 used as comparison category; 1991-2010 for grade 10: 1991 used as comparison category)	x	x	x	x	x	x	x	x
Evenings out per week (6 levels, 1= less than 1 per week: level 1 used as comparison category)	x	x	x	x	x	x	x	x
Mother have a paid job, 1 = yes, 0 = no	x	x	x	x	x	x	x	x
HS program a college preparatory program, 1= yes, 0= no	x	x	x	x	x	x	x	x
Grade point average (9 levels, 1 = D or below: 1 used as comparison category)					x	x	x	x
Male, 1 = yes, 0 = no			x				x	
Race/ethnicity, (1=White, 2=Af. Amer., 3=Hispanic, 4 = Asian Amer., 5 = Other race: White used as comparison category)		x				x		
Gender X Race (1=White Males, 2 = White Females, 3 = Af. Amer. Males, 4 = Af. Amer. Females, 5 = Hispanic Males, 6 = Hispanic Females, 7 = Asian Amer. Males, 8 = Asian Amer. Females, 9 = Other Race Males, 10 = Other Race Females: White Females used as comparison category)	x				x			

* '**x**' indicates the variable is included in the model.

**The Parental Education Index was not included as a predictor in Table 5.

Appendix Table A3
Unstandardized Regression Coefficients and Standard Errors Linking Age 18 Work Intensity with
GPA, College Plans and Substance Use at Age 18*
12th Graders, 1976-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
Total Sample	-0.0643	0.0027	-0.0350	0.0014	0.0698	0.0019	0.0388	0.0020	0.0565	0.0028
Males	-0.0634	0.0036	-0.0446	0.0018	0.0663	0.0026	0.0398	0.0029	0.0361	0.0040
Females	-0.0642	0.0037	-0.0263	0.0019	0.0751	0.0025	0.0339	0.0022	0.0784	0.0035
Whites	-0.0697	0.0031	-0.0398	0.0015	0.0810	0.0022	0.0411	0.0022	0.0564	0.0033
African Americans	-0.0068	0.0082	-0.0098	0.0039	0.0192	0.0040	0.0047	0.0048	0.0491	0.0078
Hispanics	-0.0383	0.0088	-0.0121	0.0051	0.0300	0.0053	0.0356	0.0072	0.0535	0.0095
Asian Americans	-0.1113	0.0159	-0.0190	0.0066	0.0543	0.0081	0.0396	0.0086	0.0620	0.0129
White Males	-0.0643	0.0042	-0.0485	0.0020	0.0759	0.0030	0.0429	0.0032	0.0335	0.0045
White Females	-0.0735	0.0041	-0.0306	0.0022	0.0874	0.0030	0.0378	0.0026	0.0827	0.0042
Afric-Amer. Males	-0.0025	0.0113	-0.0164	0.0056	0.0208	0.0064	0.0088	0.0087	0.0573	0.0129
Afric-Amer. Females	-0.0087	0.0106	-0.0054	0.0056	0.0195	0.0048	0.0013	0.0047	0.0435	0.0089
Hispanic Males	-0.0431	0.0113	-0.0245	0.0067	0.0252	0.0086	0.0417	0.0106	0.0445	0.0146
Hispanic Females	-0.0334	0.0134	-0.0006	0.0067	0.0353	0.0057	0.0277	0.0080	0.0615	0.0121
Asian-Amer. Males	-0.1113	0.0212	-0.0162	0.0096	0.0541	0.0123	0.0408	0.0129	0.0614	0.0195
Asian-Amer.Females	-0.1121	0.0224	-0.0222	0.0087	0.0557	0.0106	0.0397	0.0106	0.0616	0.0159

Unstandardized Regression Coefficients and Standard Errors Linking Age 16 Work Intensity with
GPA, College Plans and Substance Use at Age 16*
10th Graders, 1991-2010

	GPA		College Plans		30-Day Cigarette Use		Heavy Drinking		Annual Marijuana Use	
	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
Total Sample	-0.0883	0.0054	-0.0138	0.0021	0.0624	0.0030	0.0440	0.0030	0.0638	0.0046
Males	-0.0743	0.0070	-0.0189	0.0028	0.0615	0.0042	0.0535	0.0042	0.0462	0.0063
Females	-0.1076	0.0076	-0.0068	0.0028	0.0628	0.0043	0.0309	0.0040	0.0874	0.0060
Whites	-0.1074	0.0063	-0.0155	0.0024	0.0732	0.0036	0.0489	0.0036	0.0645	0.0054
African Americans	0.0085	0.0147	-0.0049	0.0056	0.0154	0.0059	0.0113	0.0071	0.0655	0.0113
Hispanics	-0.0482	0.0166	-0.0128	0.0069	0.0342	0.0082	0.0401	0.0102	0.0707	0.0138
Asian Americans	-0.1097	0.0315	0.0092	0.0114	0.0131	0.0158	0.0297	0.0123	0.0425	0.0192
White Males	-0.0894	0.0082	-0.0199	0.0033	0.0696	0.0048	0.0558	0.0049	0.0430	0.0074
White Females	-0.1316	0.0088	-0.0086	0.0031	0.0775	0.0053	0.0396	0.0049	0.0938	0.0072
Afric-Amer. Males	0.0035	0.0187	-0.0051	0.0074	0.0145	0.0086	0.0201	0.0107	0.0418	0.0169
Afric-Amer. Females	0.0141	0.0231	-0.0032	0.0085	0.0149	0.0072	-0.0033	0.0088	0.0886	0.0142
Hispanic Males	-0.0329	0.0223	-0.0139	0.0092	0.0437	0.0109	0.0569	0.0141	0.0766	0.0193
Hispanic Females	-0.0701	0.0216	-0.0099	0.0091	0.0194	0.0106	0.0163	0.0142	0.0606	0.0188
Asian-Amer. Males	-0.0676	0.0410	0.0017	0.0145	0.0271	0.0248	0.0467	0.0191	0.0585	0.0326
Asian-Amer.Females	-0.1311	0.0430	0.0178	0.0133	0.0040	0.0184	0.0103	0.0144	0.0196	0.0206

*For a complete details concerning the models used in these regressions see Appendix Table A2.

Appendix Table A4
Z Scores for Comparisons between Sub-groups: Impact of Hours of Paid Work on Various Outcomes

	Male vs. Female	
	10th	*12th*
gpa	3.238	ns
college	-3.050	-6.977
smoking	ns	-2.435
drinking	3.917	ns
marijuana	-4.714	-8.011

	White vs. AfAm		AfAm vs. Hispanic		Hispanic vs. AsAm		White vs. Hispanic		AfAm vs. AsAm		White vs. AsAm	
	10th	*12th*	*10th*	*12th*	*10th*	*12th*	*10th*	*12th*	*10th*	*12th*	*10th*	*12th*
gpa	-7.241	-7.170	2.552	2.619	ns	4.018	-3.326	-3.352	3.399	5.850	ns	2.574
college	ns	-7.127	ns	ns	ns	ns	ns	-5.221	ns	ns	-2.122	-3.056
smoking	8.324	13.439	ns	ns	ns	-2.507	4.374	8.860	ns	-3.876	3.718	3.174
drinking	4.762	6.961	-2.325	-3.601	ns	ns	ns	ns	ns	-3.562	ns	ns
marijuana	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

	WM vs. WF		WF vs AfAmM		AfAmM vs AfAmF		AfAmF vs HM		HM vs HF		HF vs AsAmM		AsAmM vs AsAmF	
	10th	*12th*	*10th*	*12th*	*10th*	*12th*	*10th*	*12th*	*10th*	*12th*	*10th*	*12th*	*10th*	*12th*
gpa	3.525	ns	-6.554	-5.928	ns	ns	ns	2.214	ns	-2.523	ns	3.104	ns	ns
college	-2.505	-5.973	ns	-2.348	ns	ns	ns	2.186	ns	ns	ns	ns	ns	ns
smoking	ns	-2.694	6.231	9.397	ns	ns	-2.199	ns	ns	ns	ns	ns	ns	ns
drinking	2.338	ns	ns	3.219	ns	ns	-3.624	-3.471	2.032	ns	ns	ns	ns	ns
marijuana	-4.906	-8.034	2.830	ns	-2.122	ns	ns	ns	ns	ns	ns	ns	ns	ns

	WM vs. AfAmM		WF vs. AfAmF		AfAmM vs HM		AfAmF vs HF		HM vs AsAmM		HF vs AsAmF	
gpa	-4.563	-5.145	-5.909	-5.698	ns	2.541	2.667	ns	ns	2.834	ns	3.012
college	ns	-5.406	ns	-4.163	ns	ns	ns	ns	ns	ns	ns	ns
smoking	5.573	7.788	7.023	11.886	-2.096	ns	ns	-2.118	ns	ns	ns	ns
drinking	3.030	3.698	4.266	6.800	-2.081	-2.402	ns	-2.846	ns	ns	ns	ns
marijuana	ns	ns	ns	3.982	ns	ns	ns	ns	ns	ns	ns	ns

	WM vs AfAmF		WF vs HM		AfAmM vs HF		AfAmF vs AsAmM		HM vs AsAmF	
gpa	-4.235	-4.874	-4.117	-2.531	2.580	ns	ns	4.320	2.025	2.745
college	ns	-7.237	ns	ns	ns	ns	ns	ns	ns	ns
smoking	6.317	9.904	2.786	6.800	ns	ns	ns	-2.619	ns	-2.232
drinking	5.877	7.298	ns	ns	ns	ns	-2.379	-2.871	2.311	ns
marijuana	-2.851	ns	ns	2.510	ns	ns	ns	ns	2.021	ns

	WM vs HM		WF vs HF		AfAmM vs AsAmM		AfAmF vs AsAmF	
gpa	-2.378	ns	-2.643	-2.872	ns	4.525	2.975	4.163
college	ns	-3.421	ns	-4.241	ns	ns	ns	ns
smoking	2.167	5.546	4.912	8.028	ns	-2.402	ns	-3.113
drinking	ns	ns	ns	ns	ns	-2.061	ns	-3.312
marijuana	ns	ns	ns	ns	ns	ns	2.763	ns

	WM vs HF		WF vs AsAmM		AfAmM vs AsAmF	
gpa	ns	-2.209	ns	ns	2.871	4.364
college	ns	-6.854	ns	ns	ns	ns
smoking	4.312	6.267	1.991	2.624	ns	-2.822
drinking	2.633	ns	ns	ns	ns	-2.263
marijuana	ns	-2.178	ns	ns	ns	ns

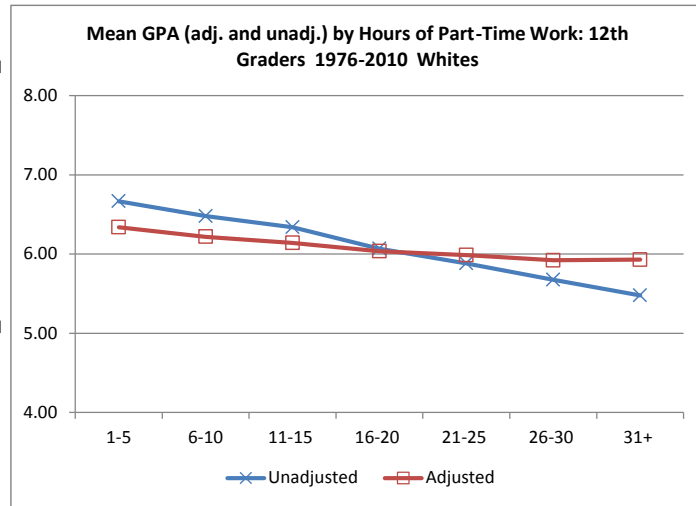|	WM vs AsAmM		WF vs. AsAmF	
gpa	ns	2.168	ns	ns
college	ns	-3.307	ns	ns
smoking	ns	ns	3.837	2.875
drinking	ns	ns	ns	ns
marijuana	ns	ns	3.406	ns

	WM vs AsAmF	
gpa	ns	2.091
college	-2.741	-2.933
smoking	3.444	ns
drinking	2.984	ns
marijuana	ns	ns

Appendix Figure A1A*: GPA, 12th Graders

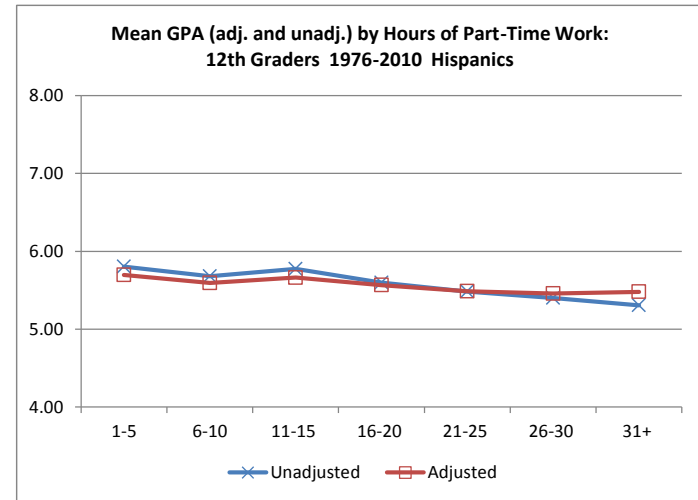**Whites GPA**

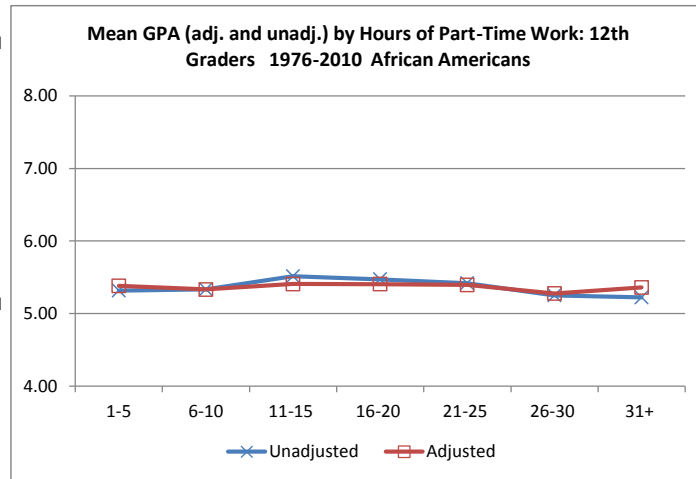|	Unadjusted	Adjusted
1-5	6.67	6.34
6-10	6.48	6.22
11-15	6.34	6.14
16-20	6.07	6.04
21-25	5.88	5.99
26-30	5.68	5.92
31+	5.48	5.93

Hispanics GPA

	Unadjusted	Adjusted
1-5	5.80	5.70
6-10	5.68	5.59
11-15	5.77	5.66
16-20	5.60	5.57
21-25	5.48	5.49
26-30	5.40	5.46
31+	5.31	5.48

African Americans GPA

	Unadjusted	Adjusted
1-5	5.32	5.38
6-10	5.33	5.33
11-15	5.51	5.41
16-20	5.47	5.41
21-25	5.42	5.40
26-30	5.25	5.28
31+	5.22	5.36

Asian Americans GPA

	Unadjusted	Adjusted
1-5	7.20	6.90
6-10	6.92	6.79
11-15	6.75	6.60
16-20	6.47	6.50
21-25	6.12	6.26
26-30	6.00	6.26
31+	6.06	6.38
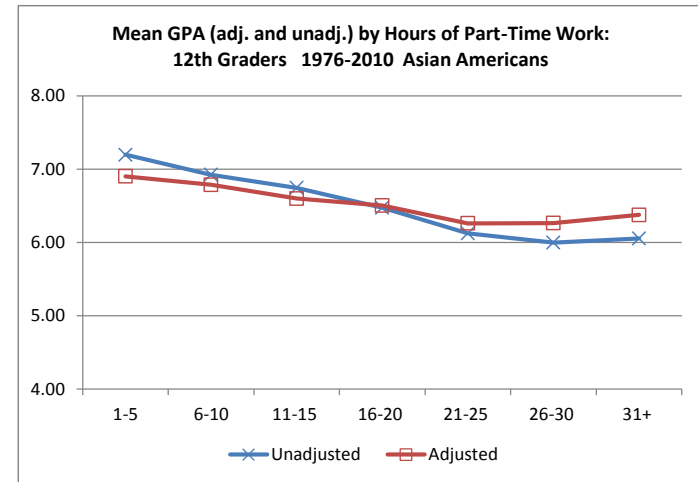
Mean GPA (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Whites

Mean GPA (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Hispanics

Mean GPA (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 African Americans

Mean GPA (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Asian Americans

*For a complete details concerning the models used in these MCA analyses see Appendix Table A2.

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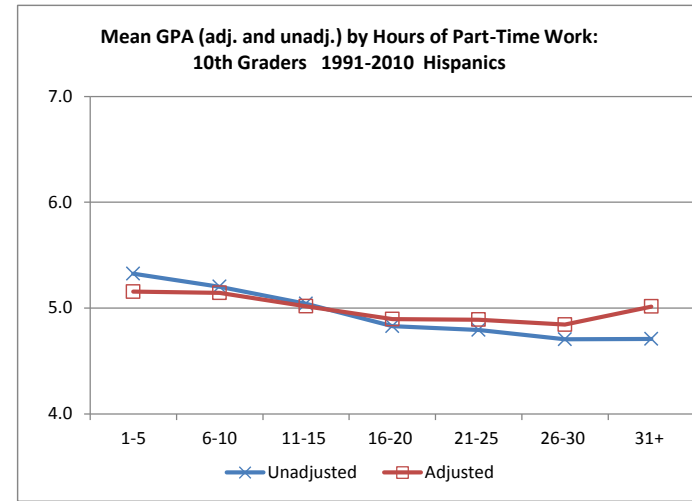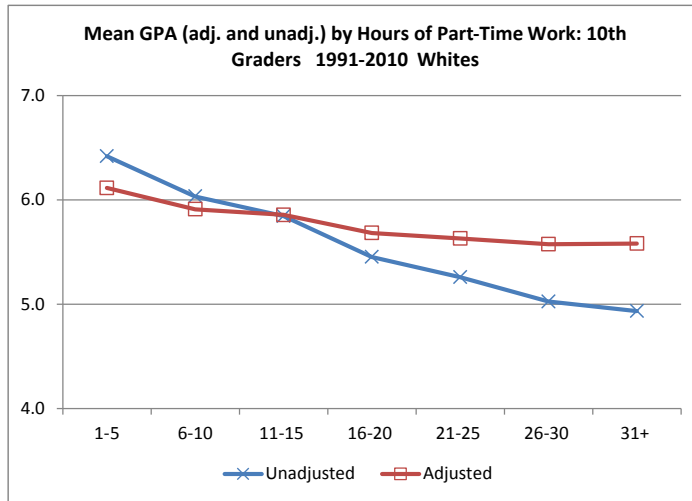**Appendix Figure A1B*: GPA, 10th Graders**

Whites

GPA	Unadjusted	Adjusted
1-5	6.42	6.11
6-10	6.03	5.91
11-15	5.84	5.86
16-20	5.45	5.68
21-25	5.26	5.63
26-30	5.02	5.58
31+	4.93	5.58

Hispanics

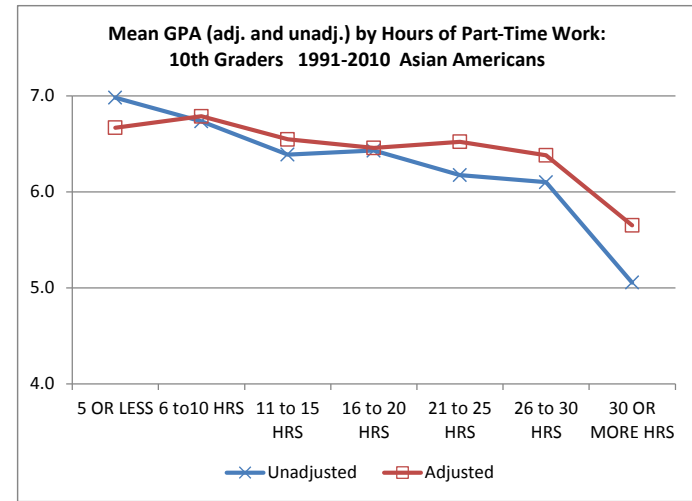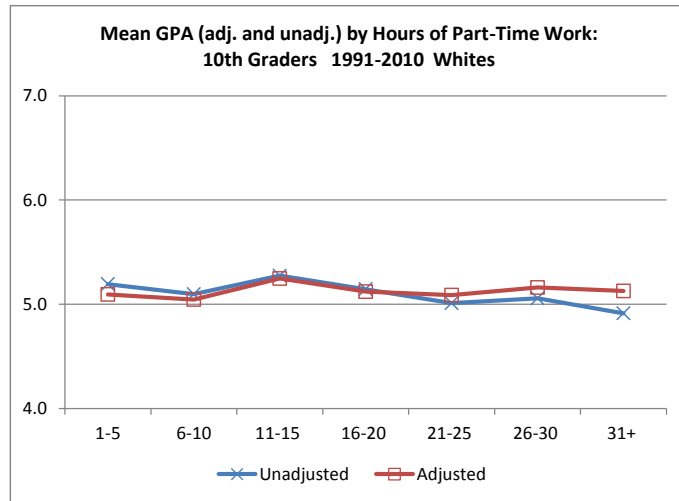| GPA	Unadjusted	Adjusted
1-5	5.32	5.15
6-10	5.20	5.14
11-15	5.04	5.02
16-20	4.83	4.90
21-25	4.79	4.89
26-30	4.70	4.84
31+	4.71	5.01

African Americans

GPA	Unadjusted	Adjusted
1-5	5.19	5.10
6-10	5.10	5.05
11-15	5.27	5.25
16-20	5.14	5.12
21-25	5.01	5.09
26-30	5.06	5.16
31+	4.91	5.13

Asian Americans

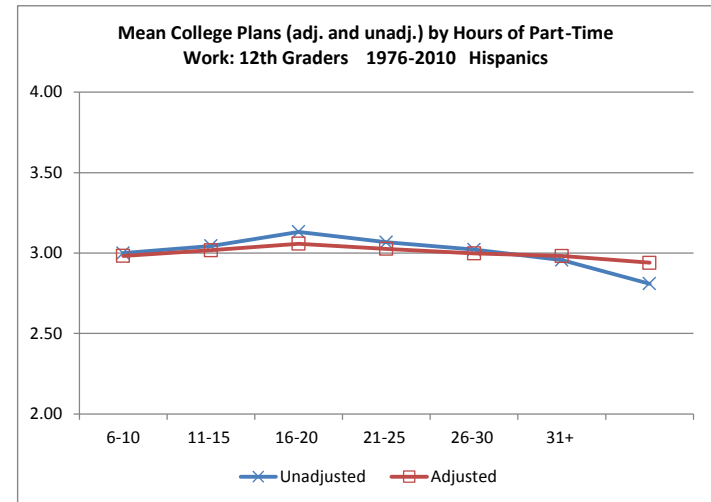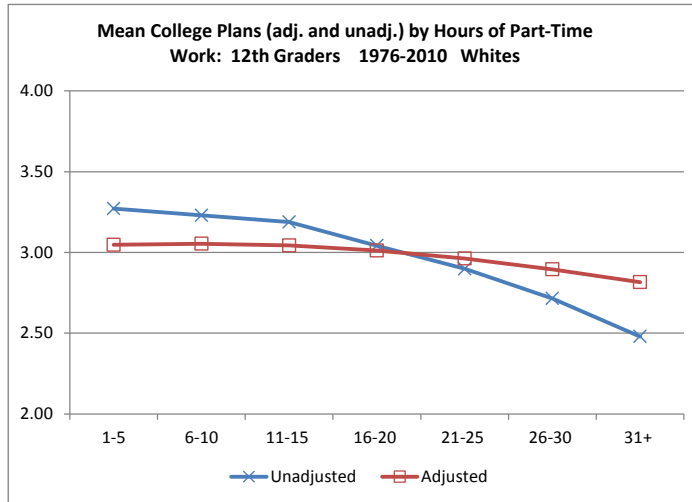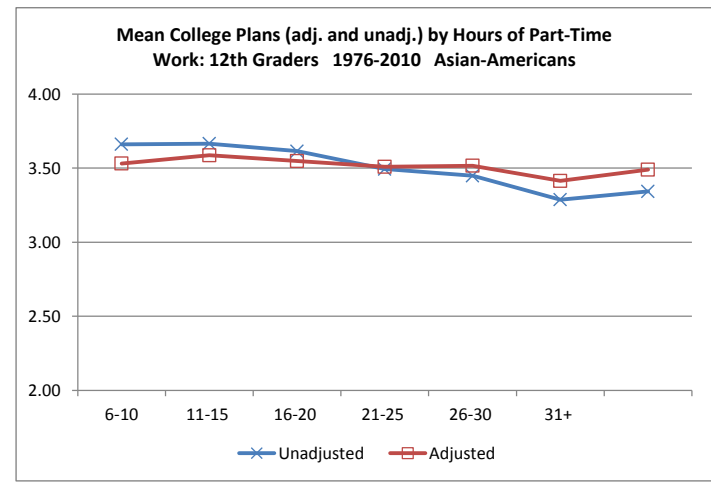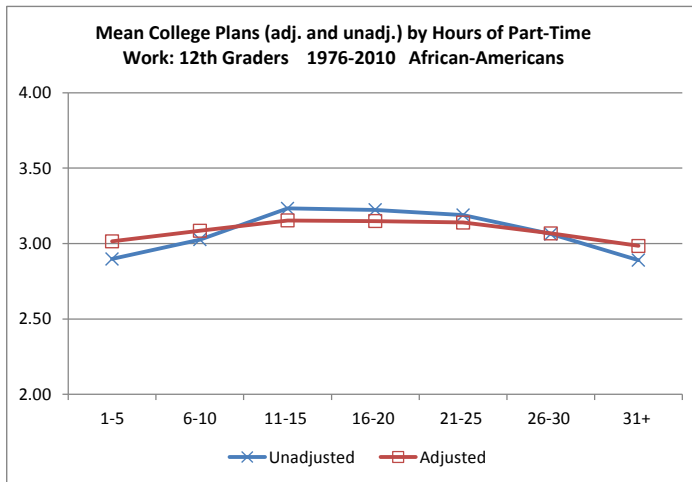| GPA	Unadjusted	Adjusted
1-5	6.98	6.67
6-10	6.73	6.79
11-15	6.39	6.55
16-20	6.43	6.46
21-25	6.17	6.52
26-30	6.10	6.38
31+	5.06	5.65

Mean GPA (adj. and unadj.) by Hours of Part-Time Work: 10th Graders   1991-2010 Whites

Mean GPA (adj. and unadj.) by Hours of Part-Time Work: 10th Graders   1991-2010 Hispanics

Mean GPA (adj. and unadj.) by Hours of Part-Time Work: 10th Graders   1991-2010 Whites

Mean GPA (adj. and unadj.) by Hours of Part-Time Work: 10th Graders   1991-2010 Asian Americans

*For a complete details concerning the models used in these MCA analyses see Appendix Table A2.

Whites

College Plans	Unadjusted	Adjusted
1-5	3.27	3.05
6-10	3.23	3.05
11-15	3.19	3.04
16-20	3.04	3.01
21-25	2.90	2.96
26-30	2.71	2.89
31+	2.48	2.82

African-Americans

College Plans	Unadjusted	Adjusted
1-5	2.90	3.02
6-10	3.03	3.08
11-15	3.23	3.15
16-20	3.22	3.15
21-25	3.19	3.14
26-30	3.06	3.07
31+	2.89	2.98

Hispanics

College Plans	Unadjusted	Adjusted
1-5	3.00	2.98
6-10	3.04	3.02
11-15	3.13	3.06
16-20	3.07	3.03
21-25	3.02	3.00
26-30	2.96	2.98
31+	2.81	2.94

Asian-Americans

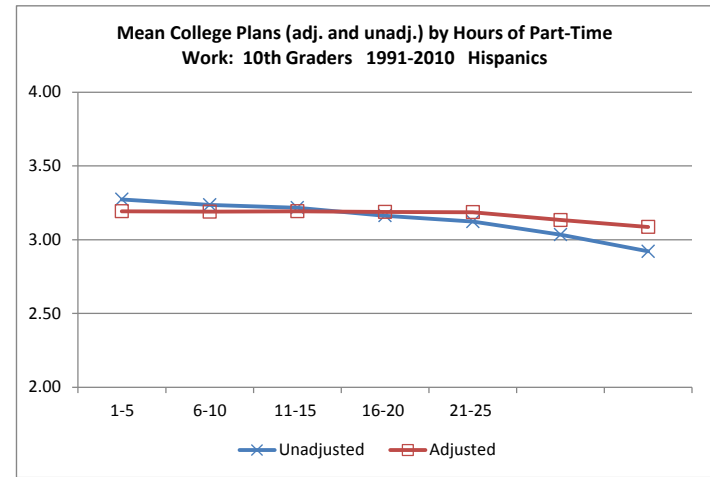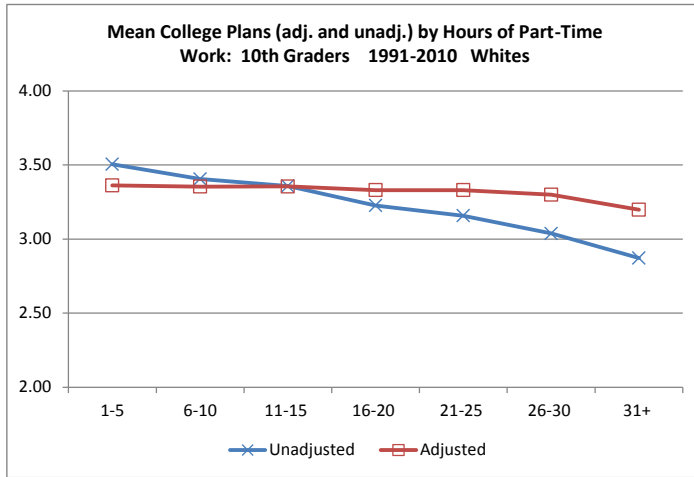| College Plans	Unadjusted	Adjusted
1-5	3.66	3.53
6-10	3.67	3.59
11-15	3.61	3.55
16-20	3.49	3.51
21-25	3.45	3.52
26-30	3.29	3.41
31+	3.34	3.49

Mean College Plans (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Whites

Mean College Plans (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Hispanics

Mean College Plans (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 African-Americans

Mean College Plans (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Asian-Americans

*For a complete details concerning the models used in these MCA analyses see Appendix Table A2.
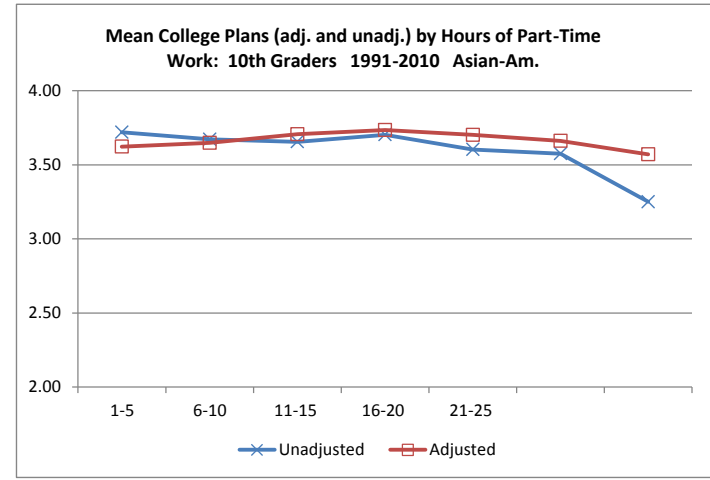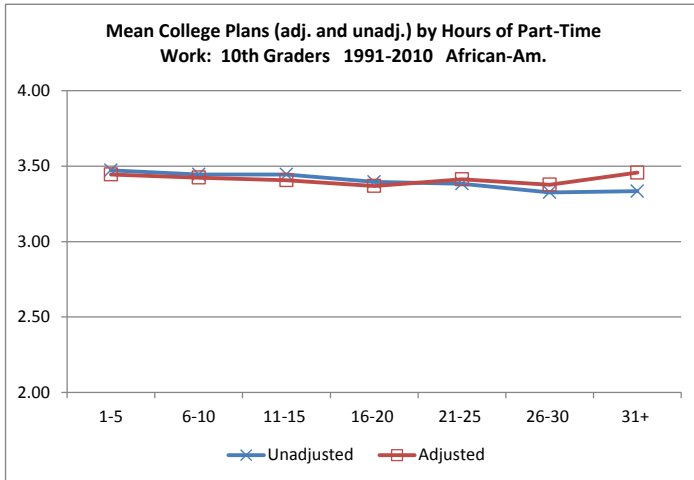
Appendix Figure A2B*: College Plans, 10th Graders

Whites

College Plans	Unadjusted	Adjusted
1-5	3.50	3.36
6-10	3.41	3.35
11-15	3.36	3.36
16-20	3.23	3.33
21-25	3.16	3.33
26-30	3.04	3.30
31+	2.87	3.20

African-Americans

College Plans	Unadjusted	Adjusted
1-5	3.47	3.45
6-10	3.45	3.42
11-15	3.45	3.41
16-20	3.40	3.37
21-25	3.38	3.41
26-30	3.33	3.38
31+	3.33	3.46

Hispanics

| College Plans	Unadjusted	Adjusted
1-5	3.27	3.19
6-10	3.24	3.19
11-15	3.22	3.19
16-20	3.16	3.19
21-25	3.12	3.19
26-30	3.03	3.13
31+	2.92	3.09

Asian-Americans

College Plans	Unadjusted	Adjusted
1-5	3.72	3.62
6-10	3.67	3.65
11-15	3.66	3.71
16-20	3.70	3.73
21-25	3.60	3.70
26-30	3.57	3.66
31+	3.25	3.57

Mean College Plans (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Whites

Mean College Plans (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Hispanics

Mean College Plans (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 African-Am.

Mean College Plans (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Asian-Am.

*For a complete details concerning the models used in these MCA analyses see Appendix Table A2.

Appendix Figure A3A*: 30-Day Cigarette Use, 12th Graders

Whites

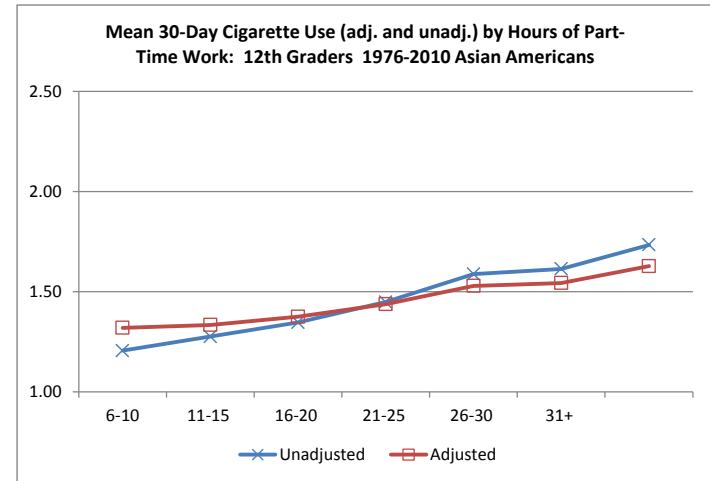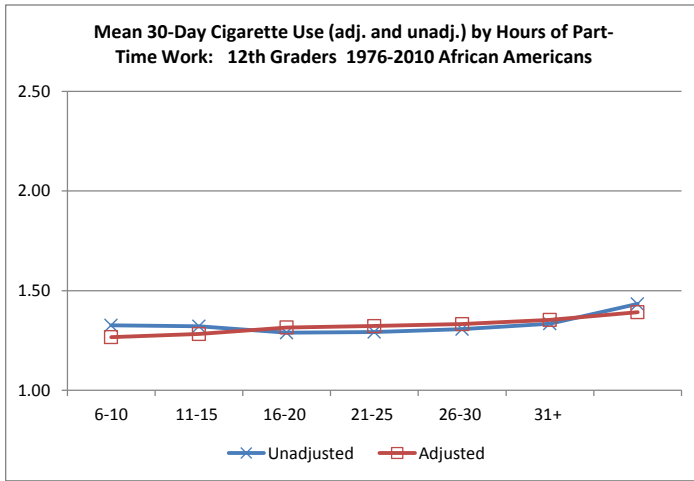| Cigarette Use	Unadjusted	Adjusted
1-5	1.49	1.67
6-10	1.58	1.70
11-15	1.67	1.74
16-20	1.83	1.83
21-25	1.97	1.92
26-30	2.14	2.03
31+	2.29	2.13
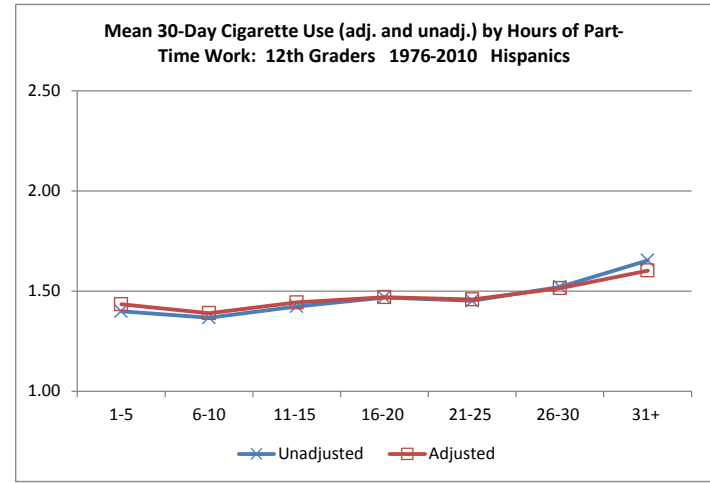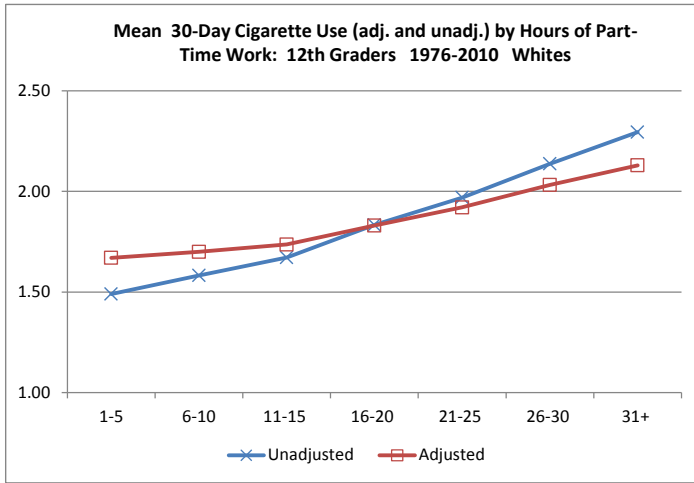
Hispanics

Cigarette Use	Unadjusted	Adjusted
1-5	1.40	1.43
6-10	1.37	1.39
11-15	1.42	1.44
16-20	1.47	1.47
21-25	1.45	1.46
26-30	1.52	1.51
31+	1.65	1.60

African Americans

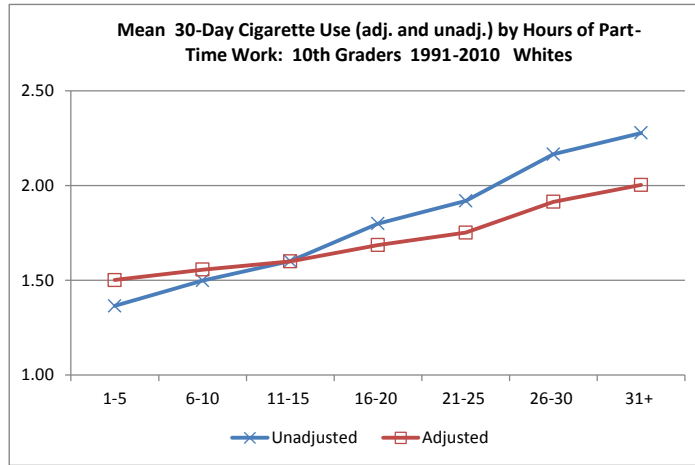| Cigarette Use	Unadjusted	Adjusted
1-5	1.33	1.27
6-10	1.32	1.28
11-15	1.29	1.32
16-20	1.29	1.32
21-25	1.31	1.33
26-30	1.33	1.35
31+	1.43	1.39

Asian Americans

Cigarette Use	Unadjusted	Adjusted
1-5	1.21	1.32
6-10	1.28	1.33
11-15	1.35	1.38
16-20	1.45	1.44
21-25	1.59	1.53
26-30	1.61	1.54
31+	1.73	1.63

Mean 30-Day Cigarette Use (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Whites

Mean 30-Day Cigarette Use (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Hispanics

Mean 30-Day Cigarette Use (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 African Americans

Mean 30-Day Cigarette Use (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Asian Americans

*For a complete details concerning the models used in these MCA analyses see Appendix Table A2.
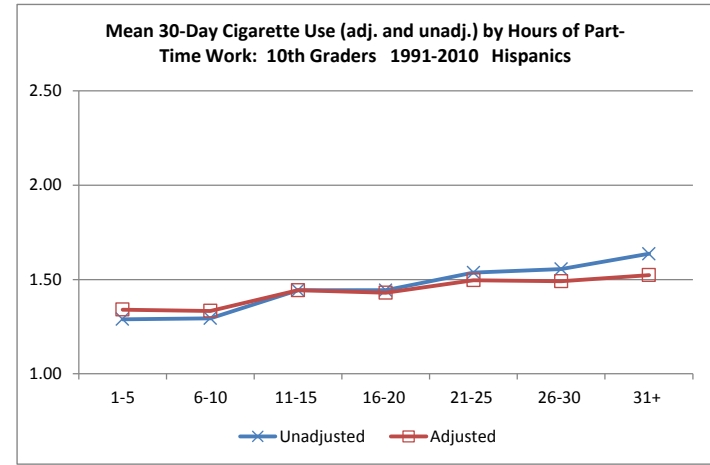
Appendix Figure A3B*: 30-Day Cigarette Use, 10th Graders

Whites

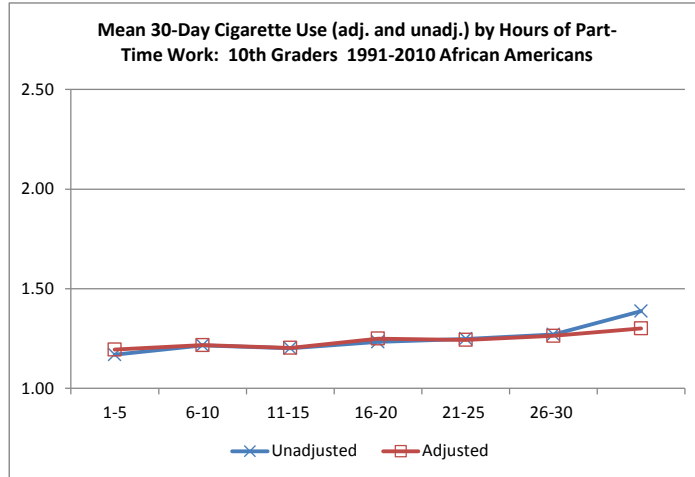| Cigarette Use	Unadjusted	Adjusted
1-5	1.37	1.50
6-10	1.50	1.56
11-15	1.60	1.60
16-20	1.80	1.69
21-25	1.92	1.75
26-30	2.17	1.91
31+	2.28	2.00

Hispanics

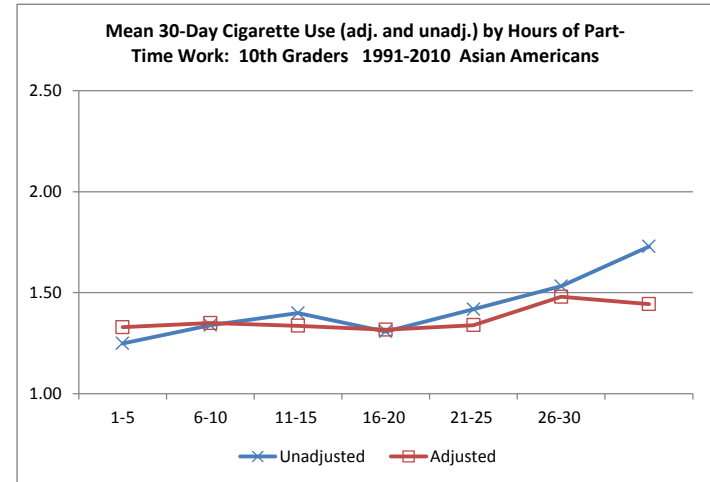| Cigarette Use	Unadjusted	Adjusted
1-5	1.29	1.34
6-10	1.29	1.33
11-15	1.44	1.44
16-20	1.44	1.43
21-25	1.54	1.50
26-30	1.56	1.49
31+	1.64	1.52

African Americans

Cigarette Use	Unadjusted	Adjusted
1-5	1.17	1.20
6-10	1.22	1.22
11-15	1.20	1.20
16-20	1.23	1.25
21-25	1.25	1.24
26-30	1.27	1.26
31+	1.39	1.30

Asian Americans

| Cigarette Use	Unadjusted	Adjusted
1-5	1.25	1.33
6-10	1.34	1.35
11-15	1.40	1.34
16-20	1.31	1.32
21-25	1.42	1.34
26-30	1.53	1.48
31+	1.73	1.44

Mean 30-Day Cigarette Use (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Whites

Mean 30-Day Cigarette Use (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Hispanics

Mean 30-Day Cigarette Use (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 African Americans

Mean 30-Day Cigarette Use (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Asian Americans

*For a complete details concerning the models used in these MCA analyses see Appendix Table A2.

Appendix Figure A4A*: Heavy Drinking in the Last 2 Weeks, 12th Graders

Whites

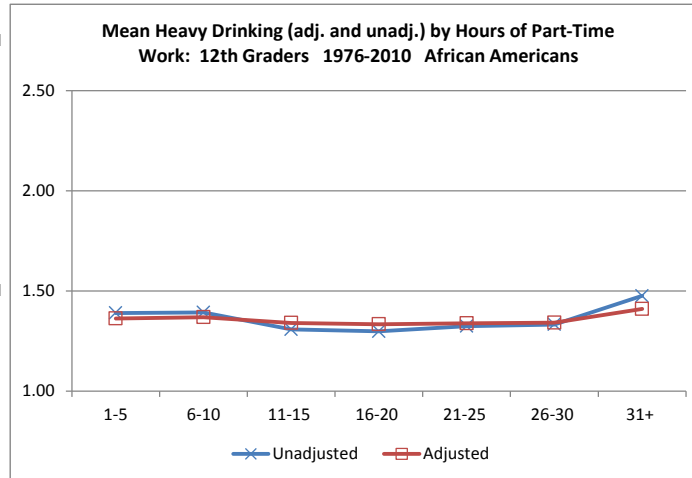| Heavy Drinking	Unadjusted	Adjusted
1-5	1.70	1.85
6-10	1.76	1.87
11-15	1.83	1.89
16-20	1.92	1.92
21-25	2.01	1.96
26-30	2.09	2.00
31+	2.27	2.12
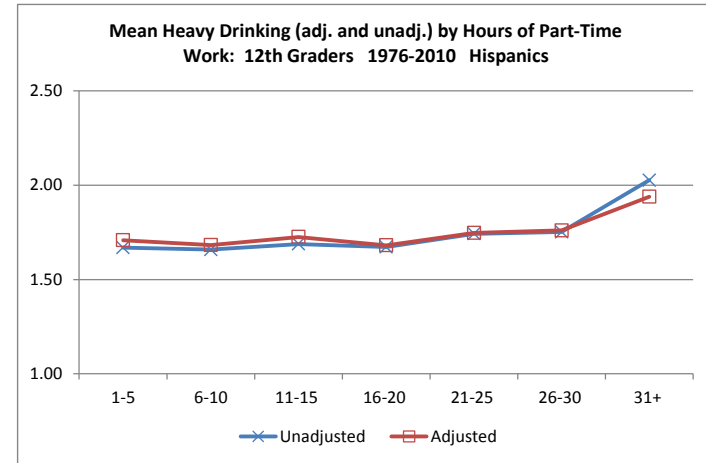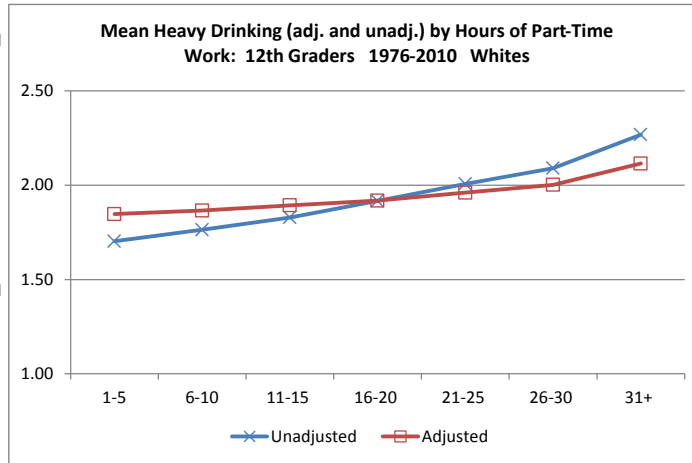
Hispanics

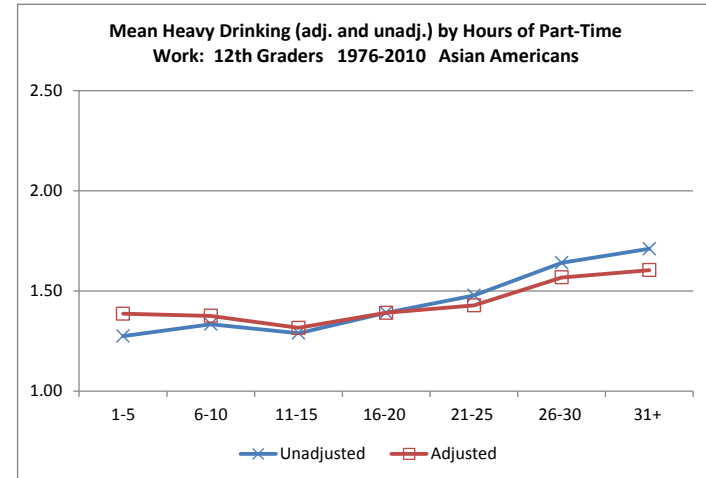| Heavy Drinking	Unadjusted	Adjusted
1-5	1.67	1.71
6-10	1.66	1.68
11-15	1.69	1.73
16-20	1.67	1.68
21-25	1.74	1.75
26-30	1.75	1.76
31+	2.03	1.94

African Americans

Heavy Drinking	Unadjusted	Adjusted
	1.39	1.36
	1.39	1.37
	1.31	1.34
	1.30	1.33
	1.32	1.34
	1.33	1.34
	1.48	1.41

Asian Americans

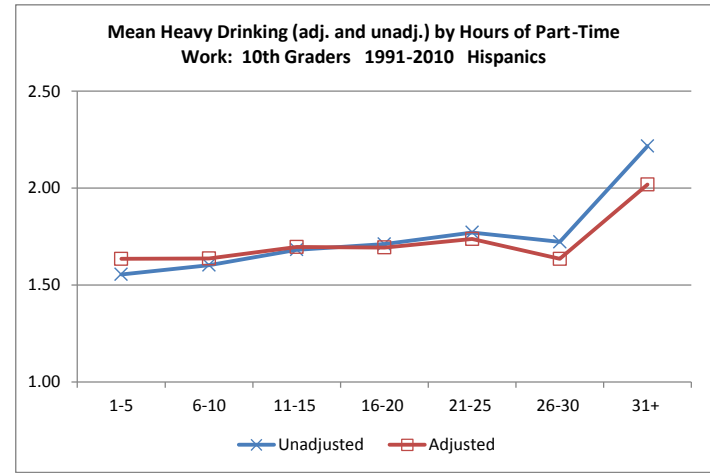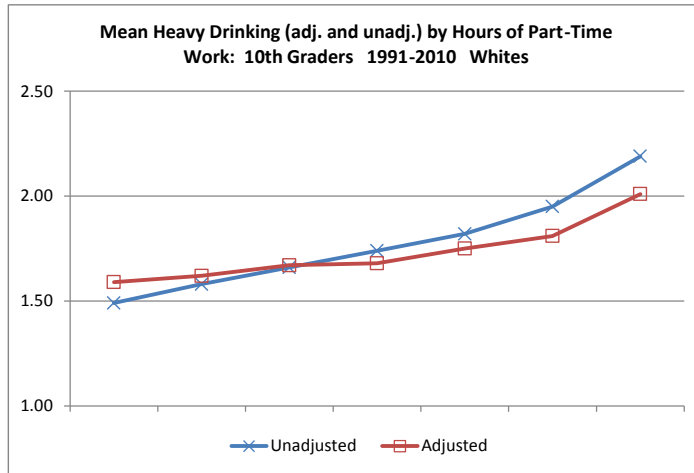| Heavy Drinking	Unadjusted	Adjusted
1-5	1.27	1.39
6-10	1.33	1.38
11-15	1.29	1.32
16-20	1.39	1.39
21-25	1.48	1.43
26-30	1.64	1.57
31+	1.71	1.60

Mean Heavy Drinking (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Whites

Mean Heavy Drinking (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Hispanics

Mean Heavy Drinking (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 African Americans

Mean Heavy Drinking (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Asian Americans

*For a complete details concerning the models used in these MCA analyses see Appendix Table A2.

Appendix Figure A4B*: Heavy Drinking in the Last 2 Weeks, 10th Graders

Whites

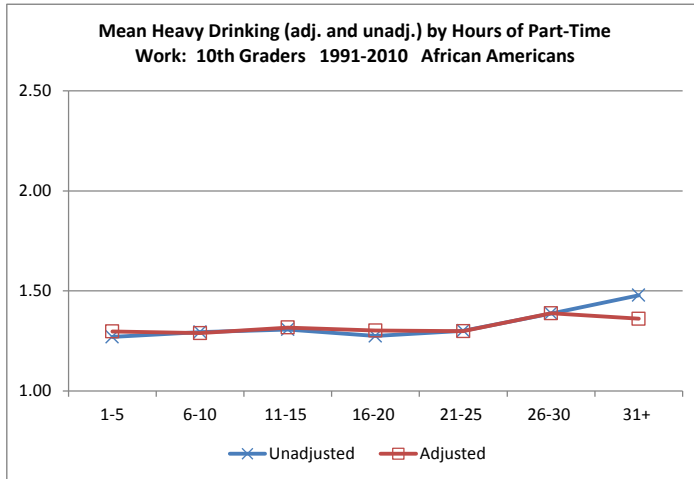| Heavy Drinking	Unadjusted	Adjusted
1-5	1.49	1.59
6-10	1.58	1.62
11-15	1.66	1.67
16-20	1.74	1.68
21-25	1.82	1.75
26-30	1.95	1.81
31+	2.19	2.01

Hispanics

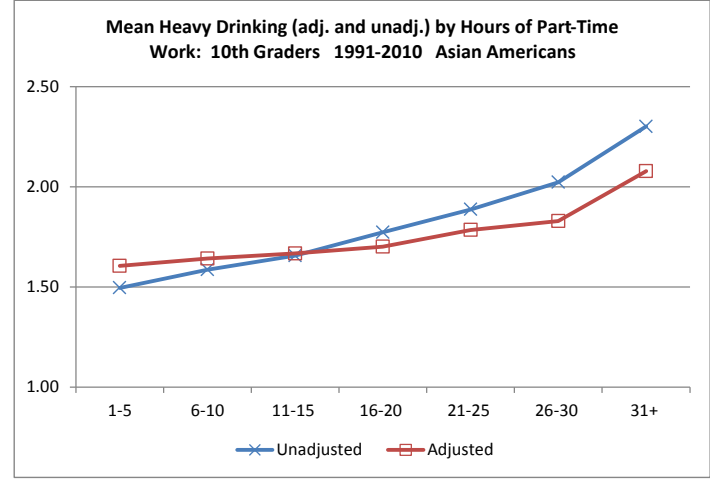| Heavy Drinking	Unadjusted	Adjusted
1-5	1.56	1.64
6-10	1.60	1.64
11-15	1.68	1.70
16-20	1.71	1.69
21-25	1.77	1.74
26-30	1.72	1.64
31+	2.22	2.02

African Americans

Heavy Drinking	Unadjusted	Adjusted
1-5	1.27	1.30
6-10	1.29	1.29
11-15	1.31	1.32
16-20	1.27	1.30
21-25	1.30	1.30
26-30	1.39	1.39
31+	1.48	1.36

Asian Americans

| Heavy Drinking	Unadjusted	Adjusted
1-5	1.50	1.60
6-10	1.59	1.64
11-15	1.66	1.67
16-20	1.77	1.70
21-25	1.89	1.78
26-30	2.02	1.83
31+	2.30	2.08

Mean Heavy Drinking (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Whites

Mean Heavy Drinking (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Hispanics

Mean Heavy Drinking (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 African Americans

Mean Heavy Drinking (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Asian Americans

*For a complete details concerning the models used in these MCA analyses see Appendix Table A2.

Appendix Figure A5A*: Annual Marijuana Use, 12th Graders

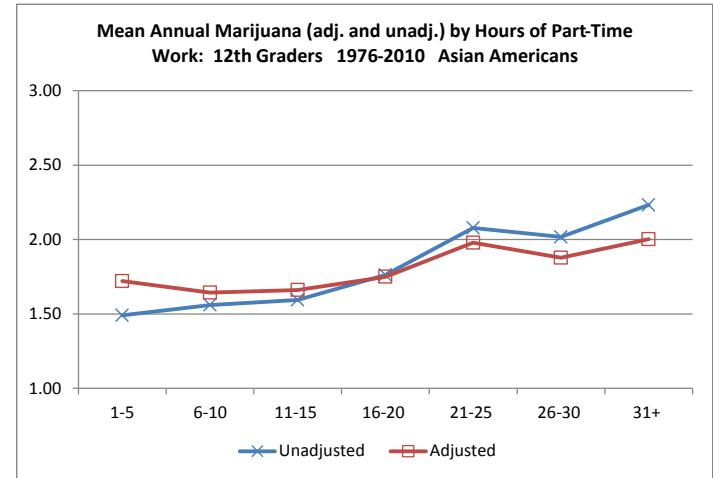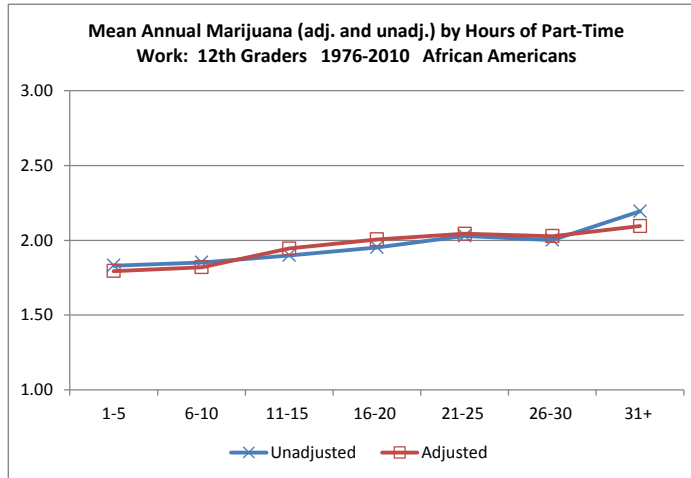| Whites Annual MJ	Unadjusted	Adjusted
1-5	2.05	2.30
6-10	2.17	2.33
11-15	2.32	2.41
16-20	2.50	2.50
21-25	2.65	2.57
26-30	2.75	2.62
31+	2.79	2.57
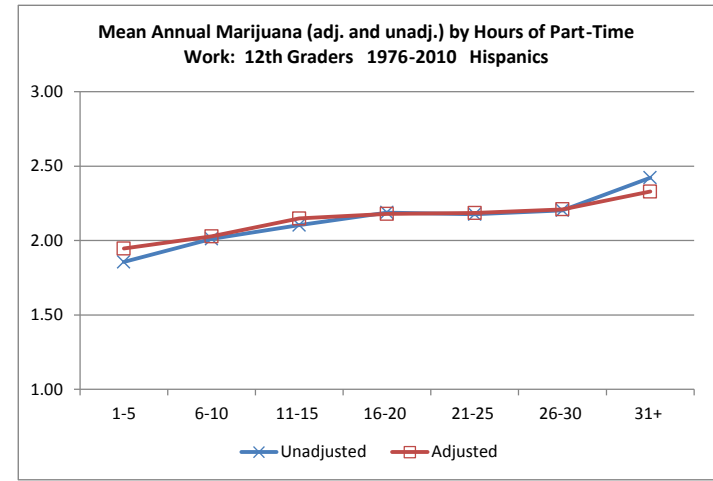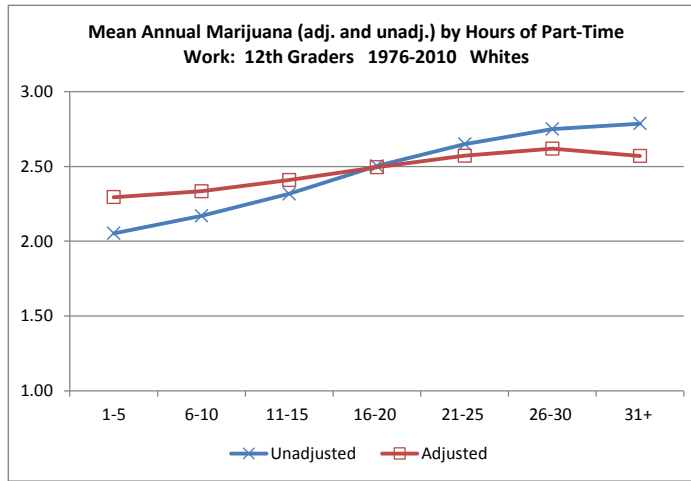
Hispanics Annual MJ	Unadjusted	Adjusted
1-5	1.86	1.95
6-10	2.01	2.03
11-15	2.10	2.15
16-20	2.19	2.18
21-25	2.18	2.19
26-30	2.20	2.21
31+	2.42	2.33

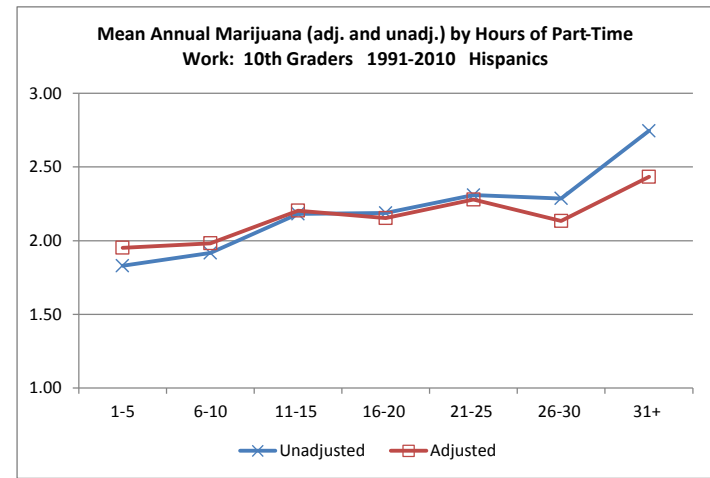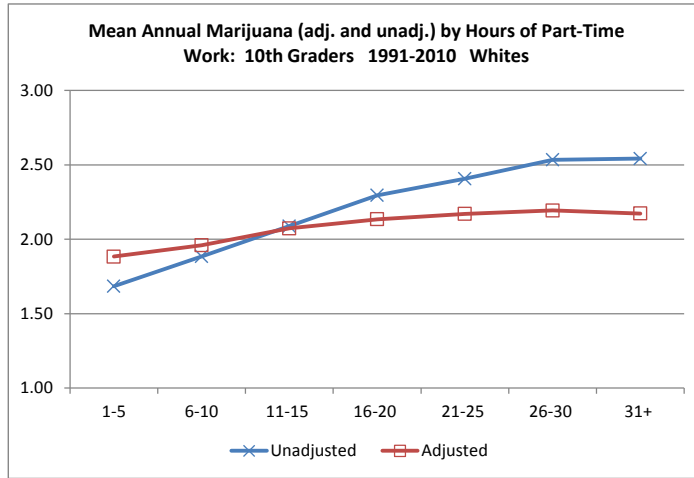| African Americans Annual MJ	Unadjusted	Adjusted
1-5	1.83	1.79
6-10	1.85	1.82
11-15	1.90	1.94
16-20	1.95	2.01
21-25	2.03	2.04
26-30	2.00	2.03
31+	2.19	2.09

Asian Americans Annual MJ	Unadjusted	Adjusted
1-5	1.49	1.72
6-10	1.56	1.64
11-15	1.60	1.66
16-20	1.76	1.75
21-25	2.08	1.98
26-30	2.02	1.88
31+	2.23	2.00

Mean Annual Marijuana (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Whites

Mean Annual Marijuana (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Hispanics

Mean Annual Marijuana (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 African Americans

Mean Annual Marijuana (adj. and unadj.) by Hours of Part-Time Work: 12th Graders 1976-2010 Asian Americans

*For a complete details concerning the models used in these MCA analyses see Appendix Table A2.

Whites

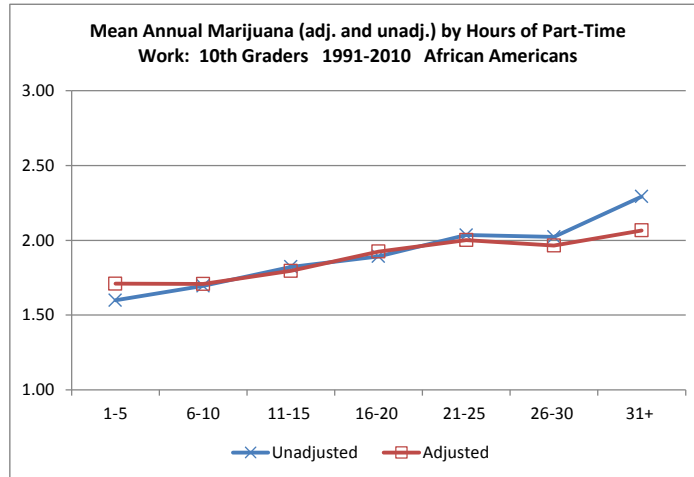| Annual MJ	Unadjusted	Adjusted
1-5	1.68	1.88
6-10	1.88	1.96
11-15	2.09	2.07
16-20	2.30	2.13
21-25	2.41	2.17
26-30	2.53	2.19
31+	2.54	2.17

Hispanics

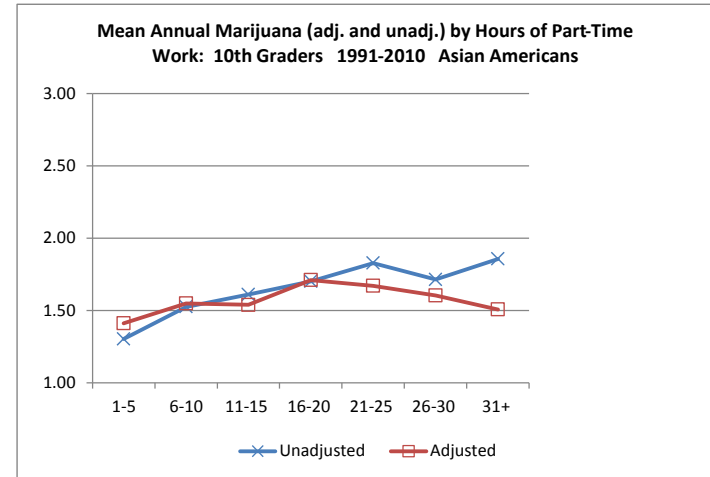| Annual MJ	Unadjusted	Adjusted
1-5	1.83	1.95
6-10	1.92	1.98
11-15	2.18	2.20
16-20	2.19	2.15
21-25	2.31	2.28
26-30	2.29	2.13
31+	2.75	2.43

African Americans

Annual MJ	Unadjusted	Adjusted
1-5	1.60	1.71
6-10	1.69	1.71
11-15	1.82	1.79
16-20	1.89	1.93
21-25	2.03	2.00
26-30	2.02	1.96
31+	2.29	2.07

Asian Americans

Annual MJ	Unadjusted	Adjusted
1-5	1.30	1.41
6-10	1.52	1.55
11-15	1.61	1.54
16-20	1.70	1.71
21-25	1.83	1.67
26-30	1.71	1.60
31+	1.86	1.51

Mean Annual Marijuana (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Whites

Mean Annual Marijuana (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Hispanics

Mean Annual Marijuana (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 African Americans

Mean Annual Marijuana (adj. and unadj.) by Hours of Part-Time Work: 10th Graders 1991-2010 Asian Americans

*For a complete details concerning the models used in these MCA analyses see Appendix Table A2.