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Journalism & Mass Communication Quarterly 2014 91: 344 originally published online
24 March 2014
DOI: 10.1177/1077699014527458

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The Effects of Pre-university Study of Journalism on Entry to the Job Market

Lee B. Becker¹, Jeong Yeob Han¹, Donna Wilcox², and Tudor Vlad¹

Abstract
Research in the United States has shown that extracurricular activities at the high school level are beneficial for students. One type of extracurricular activity common in U.S. high schools is journalistic, including production of a student newspaper, involvement with student radio and television, and production of a yearbook. Little is known about the lasting effects of participation in high school extracurricular communication activities. This article examines the impact of participation in high school extracurricular communication activities on initial success in the job market, using data from a national sample of journalism and mass communication graduates.

Keywords
education, high school extracurricular activities, high school journalism, job market success

Research in the United States has shown that extracurricular activities at the high school level have proven beneficial for students. While the benefit depends on the type of activity, the research has shown that the benefits are both short-term and long-lasting. Non-academic activities, such as playing sports, doing outdoor activities, and participation in social groups, support the development of social skills. Academic activities, such as participation in math or science clubs, positively affect academic performance.

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One type of extracurricular activity common in U.S. high schools is production of a student newspaper, involvement with student radio and television, and production of a yearbook. Existing studies on the effects of these communication extracurricular activities support the idea that they have positive effects on student academic performance. Throughout high school and into college, students who participated in journalism activities have been shown to score higher in reading and comprehension. Other research showed that high school seniors and college freshmen who participated in school newspaper and other journalism activities made fewer errors and scored higher in all measures of information presentation and selection judgment and had higher writing scores on standardized college admission tests than students who were not involved in such activities.

Little, at present, is known about the lasting effects of participation in high school extracurricular communication activities. Research has shown, however, that many students decide to enter journalism and other communication careers in high school and that those who participate in communication activities in high school are more likely to make this decision earlier than others.

This article examines the impact of participation in high school extracurricular communication activities on initial success in the job market. Specifically, it looks at whether those students who have participated in journalism activities, such as working for the high school newspaper, radio station, or television station, are more likely to find jobs once they complete their university training, and whether they have more success in finding jobs in the communication field. The analyses focus on both direct and indirect effects of the high school extracurricular communication activities on job market success.

**General Literature on Impact of Extracurricular Activities**

For most students in the United States, after-school and extracurricular activities are a large part of their school careers. It is estimated that nationally 83% of students aged 6 to 17 participate in at least one extracurricular activity during their school career. Most high school students in the United States engage in at least one school-sponsored extracurricular activity, with varsity sports being the most popular.\(^1\) Extracurricular and after-school activities serve many purposes, depending on the age group and interests of the student, as well as availability of the activities at school or in the community. Researchers, as well as developmentalists and youth advocates, argue that organized, structured activities are good for adolescents for a variety of reasons. These include acquiring and practicing specific social, physical, and intellectual skills; positively contributing to society; getting the sense of belonging to a group; establishing supportive networks; and experiencing and dealing with challenges.\(^2\)

Among high school students, research shows that participation in such extracurricular activities has extensive influence on development, including on academics. Extracurricular activities help to build a positive self-image, reduce negative behavior,
allow students to learn and continue to develop social skills, and provide mentoring possibilities between advisors and older leaders. It also is believed that experiences outside the classroom are “extensions” of what is learned inside the classroom. The benefits of extracurricular activities extend far past formal education and have been shown to increase job quality and encourage greater participation in the political process. A review of the contemporary literature on school-based activity participation, focusing on patterns of participation, academic achievement, substance use, sexual activity, psychological adjustment, delinquency, and young adult outcomes, found that the associations between school-based activity participation and these outcomes are mostly positive, but that the picture becomes mixed once moderator variables are included.

While the distinctions between activities can be broad, researchers have used different classification systems to further delineate the types of non-classroom activities. Eccles, Barber, Stone, and Hunt classify activities into the following categories: prosocial activities, team sports, performing arts, school-involvement activities, and academic clubs. In their analysis of girls’ academic achievement, Chambers and Schreiber categorized extracurricular activities first as in-school/out-of-school, then as organized/unorganized and academic/non-academic. The reason for these extensive classifications is that it is believed by some that different types of activities influence students differently. Camp and other researchers who subscribe to the zero-sum theory assert that the greater amount of time spent on non-academic activities decreases academic achievement because the amount of time spent on academic activities is decreased. School-based activities, when compared to non-school-related activities, have been found to have a stronger effect for adolescents with regard to improved academic achievement. Non-academic activities, such as sports, scouting, and social groups, support the development of certain social characteristics, while academic activities, like math or science club, positively affect academic performance.

**Literature on Impact of Journalistic Extracurricular Activities**

Among academic extracurricular activities are journalism or media activities, such as participation in production of a yearbook, working for a newspaper or TV/radio station, taking a journalism class, or involvement with some sort of online or web journalism instruction. In many high schools, these activities are part of the academic curriculum. In these cases, some or much of the work is done during the school day. Some of these activities that start during the school day carry over into after-school activities. Journalism activities thus can be classified as a school-involvement activity or an in-school, organized, academic activity.

Like other academic activities, journalistic activities have been found to have positive effects on student academic performance. Studies done by Dvorak and Dvorak and Choi show that high school seniors and college freshmen who participated in school newspaper and other journalism activities had higher grade point averages
(GPAs), made fewer errors, and scored higher on all measures of information presentation and selection judgment. They also had higher writing scores on the American College Testing (ACT) English Assessment than students who were not involved in such activities.

Journalism activities positively affect students while in high school, as is the case for other academic activities. Effects have been found to last into college and influence career decisions. High school is considered by many to be the best place to generate interest in journalism as a career and to turn into lifelong newspaper readers.\textsuperscript{14} Dvorak found that students who participated in a journalism activity were ten times as likely to choose a journalism/communications major in college and pursue it as a career as other students.\textsuperscript{15} Results from the 1997 American Society of Newspaper Editors study found that 25\% of journalists interviewed decided on their career while they were in high school.\textsuperscript{16}

Research has shown that the best predictors of success in the job market are participation in college media, internships, and appropriate specialization.\textsuperscript{17} Research also has shown consistent gaps in job market success associated with gender and racial and ethnic minority status, though these do not necessarily persist once controls are used for college experiences.\textsuperscript{18}

\section*{Research Questions and Expectations}

The existing research does not address the impact of high school journalism extracurricular activity on job market success. Based on the existing research, it seems reasonable to expect that the experience of high school involvement in journalism would lead to success in actually finding jobs once the students completed their undergraduate studies. If high school extracurricular communication activities prepare the students better for university study, it should result in fuller acquisition of the university experience, which should result in greater success once the students enter the job market.

These expectations are based on the simple argument that high school extracurricular activities expand on classroom instruction and allow the students to put into practice what they learn in the classroom. The more general argument is that one way to learn is by doing. As the literature suggests, the students would be expected to acquire specific skills, improve study and work habits, and gain general social and academic skills that would predict success beyond high school.

For those students who go to college, high school extracurricular activities, as well as high school classroom performance, would be expected to have impact on selection of course of study, on classroom performance, and on selection of extracurricular activities at the university, such as internships.

Because the skills and values acquired in high school should carry over beyond the university, the expectation is that high school extracurricular activities should continue to have impact once the student enters the job market. Those students with the skills gained from high school extracurricular activities should have more success in the job market.
The extension of these theoretical arguments to high school journalism leads to the expectation that high school journalism activities should predict job market success both directly and indirectly through college experiences.

**Method**

*Data*

To test this expectation, secondary analysis of data from the 1992, 2000, and 2007 *Annual Survey of Journalism & Mass Communication Graduates* was undertaken. The *Annual Survey of Journalism & Mass Communication Graduates* was first conducted in 1964 and has operated with a consistent methodology since 1987. It is designed to monitor the employment rates and salaries of graduates of journalism and mass communication programs in the United States, including Puerto Rico, in the year after graduation. In addition, the survey tracks the curricular activities of those graduates while in college, examines their job-seeking strategies, and provides measures of the professional attitudes and behaviors of the graduates upon completion of their college studies.

Each year, a probability sample of schools is drawn from those listed in the *Journalism and Mass Communication Directory*, published annually by the Association for Education in Journalism and Mass Communication (AEJMC), and *The Journalist’s Road to Success: A Career Guide*, formerly published and printed by the Dow Jones Newspaper Fund, Inc., and now available on the web. Schools list themselves in the AEJMC Directory. In 1992, 82 schools were drawn from the 413 unique entries of four-year programs in the United States, including Puerto Rico, in the two directories. In 2000, 103 schools were drawn from the 463 entries. In 2007, 83 schools were drawn from the 474 unique entries of four-year programs in the United States in the two directories.

The questionnaire asked about the respondent’s experiences both while a student and in the months since graduation. Included were questions about university experiences, job-seeking and employment, and salary and benefits. In each of these three years, graduates also were asked about their participation in high school journalism extracurricular communication activities.

In 1992, the survey was mailed to 6,016 individuals whose names and addresses were provided by the administrators of the eighty-two programs. A total of 3,320 returned the questionnaires by the end of May of 1992. Of the 2,831 usable questionnaires, 2,670 (94.3%) were from bachelor’s degree recipients and 161 were from those who received a master’s degree. The return rate, computed as the number returned divided by the number mailed minus the bad addresses, was 57.7%.

In 2000, the survey was mailed to 6,670 individuals whose names and addresses were provided by the administrators of the 103 programs. A total of 2,880 returned the questionnaires by the end of May of 2000. Of the usable questionnaires, 2,734 (94.9%) were from bachelor’s degree recipients and 146 were from those who received a master’s degree. The return rate was 50.4%.
In 2007, the survey was mailed to 8,129 individuals whose names and addresses were provided by the administrators of the 83 programs. A total of 2,455 returned the questionnaires by the middle of June of 2008. Of the 2,271 usable questionnaires, 2,112 (93.0%) were from bachelor’s degree recipients and 159 were from those who received a master’s degree. The return rate was 33.1%.

Only those who completed a bachelor’s degree were used in the analyses that follow because the effects of high school extracurricular activities would be expected to be diminished for those who completed a master’s degree.

**Measures and Variables**

The variables used for the study were categorized into three groups: exogenous variables (those not influenced by other variables in the model), antecedent endogenous variables (those influenced by some variables in the model and also influencing other variables), and the consequence endogenous variable of central interest. Data from the 1992, 2000, and 2007 were combined to examine more general trends associated with the model proposed. A total of 7,516 individuals were included in the analysis.

**Exogenous variable.** A dummy variable was created to reflect year of survey (year 1992 was coded 1, year 2000 was coded 2, and year 2007 was coded 3). This variable was used to control for the effect of the year of the survey. The control is important since high school journalism has changed during the period of the study. Budget cuts have made it more difficult for school systems to support these and other extracurricular activities, and these cuts likely have had impact on the experiences of students who participate in the activities.

**Antecedent endogenous variables.** Respondents’ gender was coded with male equal to 1 and female equal to 2. The race/ethnicity of the graduates was categorized into minority status, with African American, Hispanic, Asian-Pacific Islander, and American Indian, Eskimo, and Aleut equal to 1, and white equal to 2.

The measure of high school GPA was a summative index of high school grades in English, math, history, and science, with higher scores on this scale reflecting higher performance in GPA ($\alpha = .72$). The measure of high school journalism activity was an index of five items tapping students’ engagement in high school yearbook, with the high school newspaper, with the high school TV/radio station, in a high school journalism class, and in college journalism workshop (KR-20 = .56 for the dichotomous index). The dichotomous measure of decision on journalism and mass communication major before entering college was coded with 1 if the student selected the major after entering college and 2 if before.

The measure of number of internships was derived from a summative index of seven items that asked respondents about whether they had internships at newspapers, radio, TV, public relations, advertising, magazine, and other employers while attending college. The scale has low reliability, since these items can occur independently of each other. They were summed into an index because they are treated as discrete
representations of the concept. The measure of college GPA was coded with C equal to 1, B equal to 2, and A equal to 3.

Consequence endogenous variables. Two variables serve as the final outcomes. Employment status was coded with unemployed, including those returning to school, equal to 1, part-time equal to 2, and full-time equal to 3. The number of cases available for analyses using this variable was 7,516. Another final outcome, communication job status, measured whether the job held was in a communication-related field or not. The number of cases available for analyses using this variable was 6,046.

Findings

Sample Characteristics

Table 1 shows the characteristics of the sample across the seven antecedent endogenous variables and the two consequence endogenous variables. On average, the respondents had a high school GPA across four subjects of 13.52. The theoretical range of scores was from 4 to 16, with 16 being a perfect GPA for each of the subjects. High school GPA did vary by year, with journalism and mass communication bachelor’s degree recipients in 1992 reporting a mean high school GPA of 12.94 (n = 2,650), students in 2000 reporting a mean high school GPA of 13.43 (n = 2,723) and graduates in 2007 reporting a mean high school GPA of 14.35 (n = 2,107). Overall, 60.7% of the graduates in the sample participated in at least one type of high school journalism. The mean score for high school journalism activities was 1.13. Participation in high school journalism activity varied over the time period of the study, but the variation was not great. In 1992, the mean score was 1.21; in 2000 it was 1.11; in 2007 it was 1.08.

Among the graduates, 54.3% decided on journalism before entering the university. Table 1 shows this as a mean of 1.54. This varied almost not at all across the
three years. On average, the graduates participated in 1.11 internships while at the university. This also varied very little across the three years of the study. College GPA on the three-point scale was, on average, 2.33. In 1992, the graduates reported a GPA of 2.23. In 2000, the reported college GPA was 2.30. In 2007, the reported college GPA was 2.48.

Gender of the respondents did not vary over the period of the study. Overall, 71.1% were female. Minority status also did not vary. In Table 1, this is shown as a mean value of 1.71. Across the sample, 16.0% were minority. This translates to a mean value of 1.84 in Table 1.

Employment status was stable across the period of the study. Overall, 69.1% of the sample had a full-time job when they returned the survey instrument. The mean score shown in Table 1 is 2.49. Communication job status also was relatively unchanged across the three years of the study. Of those with a job, 73.4% had a job in communication. That translates into a mean score of 1.73 in Table 1.

**Model Testing**

To test the overall fit of the hypothesized mediation models, path analysis using structural equation modeling (SEM; LISREL 8.80) was employed. SEM path analysis allows for the estimation of direct and indirect effects and also allows for the test of all components of the mediation model simultaneously. Separate models were developed for each of two final outcomes: employment status of the graduate and whether the graduate was employed in communication or not. To control for the year of the survey in the mediation models, residual values of all eight focal variables were obtained by regressing them with the year control variable. These residuals are variances that are not explained by the covariate. Next, since some of the focal variables included nominal and ordinal variables, residual values of the focal variables were used in PRELIS to create an asymptotic covariance matrix and the matrix of polychoric and polyserial correlations before utilizing LISREL.20 Path models for each of the three years also were examined separately. Only minor differences existed, and these were not systematic, suggesting that, by and large, the impact of high school experiences resulting from budget cuts and other factors, as one example, on the outcome variables was not affected by differences in the high school environment across the three years. This same argument holds for other variables that may have changed across the time period as well. For example, as noted above, students reported higher high school grades and higher college grades in 2007 than in 1992. These differences were statistically significant. Yet, even with these differences, these variables, as well as others, behaved similarly in the individual models for each of the years.

For the LISREL path analysis with eight focal variables, the first step was fitting a saturated model with all structural paths freed up to be estimated. Next, each model was trimmed by removing non-significant paths from gender and minority status to each of two final outcomes to more closely examine significant indirect effects.21 The result is two final models in which all non-significant paths are removed. The models fit the data exceptionally well, as shown in Figures 1 and 2. The chi-square (3, n = 7,516) is 4.31 in Figure 1 (p = .23, Comparative Fit Index [CFI] = 1.00, Normed Fit...
Figure 1. Structural model predicting employment status.
Note. GPA = grade point average.
*p < .05. **p < .01.

Figure 2. Structural model predicting communication job status.
Note. GPA = grade point average.
*p < .05. **p < .01.
Index [NFI] = 1.00, root mean square error of approximation [RMSEA] = .00.), which is for employment status. For Figure 2, the chi-square (3, n = 7,516) is 2.41 (p = .49, CFI = 1.00, NFI = 1.00, RMSEA = .00). Figure 2 is for success in landing a communication job. The models predict 24% of the variance in employment status (Figure 1) and 33% of the variance in communication job status (Figure 2).

As Figures 1 and 2 suggest, both gender and minority variables have strong direct effects when explaining employment and communication job status. Female and minority graduates were more likely to have a full-time job (gender \( \beta = .26, p < .01 \); minority \( \beta = -.16, p < .01 \)) and a communication job (gender \( \beta = .23, p < .01 \); minority \( \beta = -.24, p < .01 \)) than their counterparts. These direct impacts were supplemented by a number of indirect pathways to employment and communication job status. Evaluation of indirect effects provides empirical evidence for the mediation process. LISREL estimates of indirect effects suggest that gender and minority status exerted significant indirect influences on employment status and on whether the graduate was employed in communication or not. That is, for both models, the influence of gender was mediated by high school GPA, the high school journalism participation score, the decision on when the major was selected, the number of internships, and university GPA (Figure 1: \( b = .03, Z = 6.22, p < .01 \); Figure 2: \( b = .06, Z = 11.31, p < .01 \)). Gender had significant influence through high school GPA (Figure 1: \( \beta = .16, p < .01 \); Figure 2: \( \beta = .16, p < .01 \)) and the high school journalism score (Figure 1: \( \beta = .07, p < .01 \); Figure 2: \( \beta = .05, p < .01 \)). Gender also had impact through the decision on journalism major before entering college (Figure 1: \( \beta = .16, p < .01 \); Figure 2: \( \beta = .16, p < .01 \)), number of internships (Figure 1: \( \beta = .03, p < .01 \); Figure 2: \( \beta = .03, p < .05 \)), and college GPA (Figure 1: \( \beta = .13, p < .01 \); Figure 2: \( \beta = .14, p < .01 \)).

The indirect influence of minority status was also through high school GPA, the high school journalism score, the decision on selecting journalism major before entering college, the number of internships, and college GPA (Figure 1: \( b = -.08, Z = -12.12, p < .01 \); Figure 2: \( b = -.07, Z = -10.28, p < .01 \)). These indirect links worked through high school GPA (Figure 1: \( \beta = .19, p < .01 \); Figure 2: \( \beta = .19, p < .01 \)) and journalism score (Figure 1: \( \beta = .06, p < .01 \); Figure 2: \( \beta = .05, p < .01 \)), but also through the links between minority and number of internships (Figure 1: \( \beta = .04, p < .01 \); Figure 2: \( \beta = .05, p < .01 \)), early decision on selecting journalism major (Figure 1: \( \beta = -.33, p < .01 \); Figure 2: \( \beta = -.33, p < .01 \)), and college GPA (Figure 1: \( \beta = .16, p < .01 \); Figure 2: \( \beta = .17, p < .01 \)).

Respondents who had a high GPA in high school also were more likely to decide on a journalism and mass communication major early and to have a good college GPA and more internships while in college. The high school journalism score is positively related to number of internships and to early decision on selecting a journalism and mass communication major. The high school journalism score’s direct effect on both employment status and on communication job status is negative, controlling for all other variables.

Early decision on selecting journalism and mass communication major was significantly related to both employment (\( \beta = .21, p < .01 \)) and communication job status (\( \beta = .26, p < .01 \)). These direct links were complemented by the indirect pathways...
through number of internships and college GPA. Both types of college performance were significantly related to employment and communication job status. College GPA has inconsistent relationships with the two outcome variables. It is negatively related to employment status but positively related to finding a communication job. In both cases, of course, other variables have been controlled for. Overall, results of the indirect effects point to the importance of those mediating factors in the success in the job searching process.

**Discussion and Conclusion**

Exposure to journalism at the high school level appears to have a lasting effect on students. The findings from this analysis add to, and update, the existing research on the impact of participation in high school journalism extracurricular activities. Participation in such activities prepares students for their undergraduate careers, and these college experiences have a significant effect on the success of the university graduates once they move into the job market. While gender and minority status also play a significant role in job market success, these are, of course, stable variables not affected by either the college or university experience. Particularly important in predicting job market success is the number of internships students have while at the university. This is a finding consistent with earlier research on the topic.

The design used in this study is correlational, and that creates an important limitation on the analysis. It is possible that those persons who seek out high school journalism experiences have a “trait” that makes them different from those who did not seek out and have these experiences. The high school journalism students could be more inquisitive, better at writing, and more determined to serve society in the way that communication professionals do, among other things. And it is possible that this “trait” also leads the students to be more successful in the job market upon graduation from the university. With a correlational design, it is impossible to rule out this explanation entirely. And, of course, it is impossible to experimentally assign students to journalism extracurricular activities at the high school level to study the effects of this experience.

Given the data presented here, however, it seems unlikely that this “trait” explanation has merit. The multivariate analysis conducted controlled for high school grades, for number of internships while in college, for college media participation, and for university grades. These would all be expected to be correlated with the “trait” that would lead students to be successful in the job market upon graduation from the university. The elimination of these explanations in the analysis of the continued impact of high school journalism experience suggests it was just that experience, rather than the characteristics of the students who engaged in it, that had lasting impact and led to success in the job market on graduation.

This impact, to be certain, is both direct and indirect. High school extracurricular activities lead the students who participate to engage in college activities that pay big dividends. Most importantly, high school journalism extracurricular activities lead students to an early decision to study journalism, and that decision is a powerful predictor...
of job market success. Less powerful is the influence of high school journalism extracurricular activities on the decision of college students to seek internships. The number of internships is a predictor of job market success. While this second indirect effect is less pronounced than the first, it remains significant once other variables, such as gender and minority status, are controlled. The overall evidence of the continued impact of high school journalism is strong and significant for the field of journalism and mass communication education.

With the data available, it is not possible to know if these effects come about because the students acquired professional values in high school, acquired skills, or both. While it seems likely that high school journalism experiences have impact on both values and skills, and that both of these played a role in explaining job market success, it remains possible that one or the other of these is more important. The analyses presented here make a strong case for the importance of high school journalism in understanding job market success, but they leave unexplained the precise mechanisms for those effects.

The findings do support the theoretical argument advanced here that extracurricular activities have impact at least in the initial phase of entry to the labor market. The findings, of course, are specific to the journalism education context. The impact, in that case, is through activities at college. Small direct effects also exist, but they are negative after controls for other variables. For those who work in high school journalism or invest in it in other ways, the results should be gratifying, since significant positive effects exist, through other variables. For those interested in developing theoretical models of forces that have impact on the journalism and mass communication labor market, the data argue that high school experiences as well as those at the university are important.

Declaration of Conflicting Interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author(s) received no financial support for the research, authorship, and/or publication of this article.

Notes


15. Dvorak, “College Students Evaluate Their Scholastic Journalism Courses.”


