Planning for the Future: An Investigation of Work-Bound Rural Youth

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The purpose of this study was to explore the postsecondary educational and occupational expectations of work-bound rural youth. Three groups of work-bound youth were identified (work-bound, work-bound with future educational plans, and work-bound but unsure/undecided about postsecondary education), and each group was compared to college-bound rural youth using results from a recent national investigation of the educational and occupational aspirations of rural youth. Results indicated that the majority of rural youth in this study planned to continue their education after high school (56%), followed by 34% who planned to work and further their education. Results of logistic regression analysis indicated that family characteristics and students' schooling experiences were the strongest predictors of work-bound status. Work-bound youth were more likely to report greater family economic hardship, lower parental expectations for completing college, and more negative schooling experiences than college-bound rural youth.

Keywords: rural; adolescents; high school; work-bound; educational expectations; occupational expectations

Nearly one third of America's youth attend schools in rural areas (Provasnick et al., 2007). Recent reports indicate that educational aspirations of rural youth are on the rise (Chenoweth & Galliher, 2004; Elder & Conger, 2000). In fact, a recent report by the U.S. Department of Education suggests that rural youth have experienced the greatest increase in college attendance compared to youth in urban and suburban areas (Synder & Dillow, 2010). Although increases in college attendance among rural youth are encouraging, nearly 40% of rural youth do not continue their education at either a two-year or four-year institution directly after high school (Synder & Dillow, 2010). Students who forgo college and enter the workforce, can face a number of challenges and limited opportunities including availability of fewer jobs, less job stability, depressed wages, and lower overall satisfaction with life (Halperin, 1998).

Unfortunately, little is known about the unique needs and experiences of those rural youth who enter the workforce after completing high school (Rojewski, 1999). Using data from the Rural High School Aspirations Study (RHSA), this investigation explored relations between individual, family, school, and students' schooling experiences on rural youths' future educational expectations. A particular focus of this study was on understanding how schooling experiences contribute to rural youths' postsecondary plans. In addition, we were guided by the perspective that today's youth follow a number of nontraditional pathways from school to work (Eccles, Templeton, Barber, & Stone, 2003; Lapan, 2004). As such, this investigation considered not only students who were either college-bound or work-bound, but we also explored the growing number of rural youth who plan to work and attend school concurrently.

Review of the Literature

In the following review we address three areas that are important to understanding the experiences of rural work-bound youth. We begin by addressing the role of college attainment. Next, we briefly consider the general determinants of college attainment. Finally, we explore the literature on why some youth do not continue their education. We pay particular

attention to the unique contextual experiences that these youth face during the transition to adulthood.

The Role of College Attainment

The adolescent years are a critically important time in the transition to adulthood. Given the rapidly changing labor market, today's adolescents cannot realistically depend on high-paying and stable employment if they decide to forgo college. Such concerns were first articulated in the William T. Grant Foundation's (1988) report, *The Forgotten Half,* which raised concerns about conditions and opportunities for youth who do not attain postsecondary education. This report highlighted the fact that work-bound youth find fewer full-time jobs, experience longer periods of unemployment, and more often have to rely on part-time or "dead-end" jobs that provide few benefits and little security. This report, along with a follow-up report (Halperin, 1998), found that work-bound youth face a difficult transition from school to work because few institutional supports are available to help these youth develop the knowledge, skills, and abilities necessary to meet the demands of a more technologically sophisticated job market.

Such attention to the transitional needs of adolescents from school to work led to a number of legislative initiatives, such at the School to Work Opportunities Act of 1994, to improve the educational experiences of adolescents in an effort to prepare them for college and the world of work. In addition to legislative initiatives, organizations such as the American School Counselor Association (2005) have called on members to take steps to improve the career development needs of all students regardless of their postsecondary educational plans.

College Bound Youth

Numerous studies have shown that adolescents' educational aspirations are a significant predictor of postsecondary educational enrollment and attainment (Eccles et al., 2003). In addition, those youth who leave high school with a clear sense of purpose and direction are more likely, with economic and social support, to make successful transitions to secondary education (Lapan, 2004). Although educational aspirations are a significant predictor of later educational attainment, no single factor determines adolescents' educational aspirations and attainment; rather, a variety of factors influence adolescents' aspirations and decisions about their future.

Adolescents' decisions to continue their education are influenced by numerous factors including family background, demographic background, school resources, and students' schooling experiences (see Deil-Amen & Turley, 2007 for a review). Students who come from families with higher socio-economic status (SES) and greater expectations for college attainment are more likely to aspire to, and attain postsecondary education (Bozick, 2007). In addition to SES, demographic disparities play a role in college attainment with minority youth being less likely to attain postsecondary education (Deil-Amen & Turley, 2007). Students' schooling experiences and their perceptions of these schooling experiences also can positively impact their educational aspirations and attainment (Lapan, 2004). Studies suggest that school belonging, school valuing, and positive academic self-perception are all important factors that influence adolescents decision to continue in school and to pursue postsecondary education (Demi et al., 2010). Postsecondary education attainment is also associated with schooling experiences such as taking part in a rigorous curriculum, availability of advanced or A.P. courses, and opportunities to take part in comprehensive programs and services that promote career development (Lapan, 2004).

Work Bound Youth

Although there is increased attention on adolescents making the transition from school to work, little is known about the unique career development experiences and needs of work-bound rural youth (Rojewski, 1999). Understanding the unique experiences of these youth is important given that many rural youth experience contextual challenges that may limit their access to resources that support career development (Apostal & Bilden, 1991; Crockett, Shanahan, & Jackson-Newsom, 2000; Haller & Virkler, 1993). For example, rural youth typically experience some of the highest levels of poverty (Albrecht, Albrecht, & Albrecht, 2000; Lichter & Johnson, 2007). Many rural schools lack financial resources, which negatively impacts curriculum offerings, availability of school-to-work transition programs, availability of teachers with advanced degrees, and school counseling services because counselors have limited time and resources to provide career counseling (Gándara, Gutiérrez, & O'Hara, 2001; Joyce & Neumark, 2000; Morrissette, 2000). At the community level, many rural students lack access to adult role models who work in more technical, professional, and managerial positions because rural economies often are based on service, labor, or farming jobs (Crockett et al., 2000). Rural youth may have a more restricted view of occupational opportunities because effective role models provide one of the best sources of career information (Lapan, 2004).

A number of studies suggest that work-bound youth, compared to college-bound youth, typically

perform lower academically, have lower levels of SES, are more likely to be minorities, less likely to report having college role models, are more likely to aspire to taking on adult responsibilities sooner, and are more likely to share many of the characteristics of those students who are at risk for school failure or dropping out (Herr, 1995; Herr & Niles, 1997; Rojewski & Kim, 2003). Studies of work-bound rural youth report similar findings (Ali & McWhirter, 2006; Burnell, 2003; Rojewski, 1999). Work comparing rural work-bound youth to non-rural work-bound youth suggests that rural youth are more likely to be work-bound than non-rural youth (Rojewski, 1999). Interestingly, although there is a recognition that rural youth are often faced with the conflict of remaining in their local community or leaving to pursue postsecondary opportunities (see Hektner, 1995), this conflict tends to be more of an issue for rural youth wanting to attend college whereas rural work-bound youth do not differ from non-rural work-bound youth on residential aspirations (Rojewski, 1999).

Purpose of the Study

The purpose of this study was to report on findings from a recent national study of the educational and occupational aspirations of rural youth. As part of this study, rural students were asked about their future educational and occupational expectations. The goal of this study was to address the following research questions:

Research Question 1. What pathways do rural youth expect to follow as they transition to adulthood? Students' educational and occupational expectation information will be used to determine what percent plan to: enter college directly after high school (*college-bound*), work full time with no postsecondary education plans (*work-bound*), work while attending school (*work/college-bound*), or work while being unsure about college (*work-bound-unsure*).

Research Question 2. What characteristics of the student, student's family, school, and schooling experiences influence the pathway a student expects to follow?

This study contributes to the literature in three ways. First, multiple transition pathways will be considered. Typically, investigators dichotomize students into college-bound or work-bound. However, more students today are following non-traditional pathways into adulthood, with some going straight to college, some entering the workforce, while others undertake a combination of school and work (Eccles et al., 2003; Lapan, 2004). Second, this study provides more current information on rural work-bound youth from a national sample than previous studies that have relied on datasets from the late 1980s (Rojewski, 1999). Third, this study is unique in that it considers how multiple contextual factors influence students' expectations.

Methods

The current study is part of a broader national investigation to examine students' school adjustment and postsecondary aspirations in rural high schools across the United States. Youth in grades 9-12 were recruited from 73 schools, with 89% of the schools from rural urban-centric locale codes (41, 42, and 43) and 11% from small-town codes (31, 32, and 33). Thirty-six schools had 50% or more students who were eligible to receive free or reduced-price lunch and 15 schools had 50% or more students who were identified as ethnic minority.

Participants

The sample included students in grades 9 through 12 who provided information about their future educational and occupational expectations. The sample included 7,945 students (9^{th} – 27.2%, 10^{th} – 27.3%, 11^{th} – 25.3%, 12^{th} – 20.2%). Of this group, 52.6% were girls, and the sample self-reported ethnicity or racial background was: 68.4% White, 6.9% African American, 10.9% Hispanic/Latino(a), 3.8% Native American, and 10.0% multiracial. Students from other ethnic or racial backgrounds were excluded because they constituted less than 1% of the sample.

As agreed upon by the university internal review board (IRB), recruitment and consenting procedures followed participating districts' local policies and administrative guidelines. In some school districts (36%), active consent procedures were used, and parental consents forms were sent home with students. In other districts (28%), waiver procedures were used, and consent forms were sent home to notify parents of the study. The remaining districts (34%) employed a combination of active and waiver consent procedures to increase student participation. There was no significant relation between school poverty (i.e., proportion of student's eligible for free or reduced-price lunch) and consent procedures or rates of student participation. All participating students completed student assent forms.

Data Collection

Data collection followed a protocol that has been used for two decades in research on adolescents' school adjustment in middle-school and high-school

settings (Cairns et al., 1988) and consisted of gathering information on students via separate student and teacher instruments. The student instrument consisted of a paper and pencil questionnaire administered on-site by trained researchers. Student surveys were group-administered in a common space on the school campus (e.g., cafeteria), with students seated with no one immediately in front or beside them to ensure the confidentiality of responses. One member of the research team read the survey instructions aloud and paced the survey administration, while other team members provided mobile monitoring. For each participating student, first-period teachers were asked to complete a brief survey that contained the rating scale of school achievement examined in this study. In cases where teachers did not believe they could adequately complete the survey, a guidance counselor or administrator identified another teacher who knew the student well enough to complete the assessment. Teachers were paid to complete the survey, and students received a school-supply item such as a pencil. All data collection occurred at least three months into the school year when teachers and students had had ample time to become familiar with each other.

Instrument

The main instrument used in this study was a student survey. The survey was constructed based on an extensive review process. Most of the scales within the survey have been used in other investigations of rural youth and in national studies such as the Educational Longitudinal Study of 2002 and the National Educational Longitudinal Study of 1988. However, a number of scales used in this study were modified to assess factors unique to the rural context. Because these scales were adapted from original sources, the complete survey underwent an in-depth review. First, all items on the survey were reviewed by a panel of national experts, including individuals with expertise in rural education. Second, an additional review process was conducted by senior research scientists at the U.S. Department of Education's Institute of Education Sciences. Finally, the survey was pilot-tested in a number of rural schools before it was used in the study schools.

Measures

The survey questions explored several areas.

Family economic hardship. Students completed three items on a five point scale (1 = "never" to 5 = "all of the time") assessing constraints felt by adolescents relating to difficulty over paying bills and struggles with having enough money to buy items for the family. Items were adapted from multiple sources (i.e., Conger et al., 1999; Elder et al., 1995; Wadsworth & Compas, 2002). These items were similar to measures of financial hardship in antipoverty intervention research (Huston et al., 2001) and studies of rural families (e.g., Conger et al., 1999; Elder et al., 1995). An exploratory factor analysis (EFA) indicated that these items formed a single factor which accounted for 81% of the variance. A confirmatory factor analysis (CFA) yielded a RMSEA of .50, indicating that the model was not a good fit. However, the NFI and CFI were both acceptable with values of 1 each. Cronbach's alpha was .88. The standardized estimates for item loadings ranged from .81 to .91. The composite score was obtained by computing the mean rating across items. Higher score indicated more hardship.

Parents' level of education. Students were asked to report on the level of education of each parent (or guardian). Answer choices ranged from "less than high school" to "completed a Ph.D., M.D., or other advanced professional degree." The parent/guardian with the highest level of education was used in the analysis. Responses of "don't know" were recoded as missing. Parents' level of education was transformed into the corresponding years of schooling (e.g., 11 = less than high school graduation; 22 = has a Ph.D., M.D., or other advanced degree) so that level of education could be treated as a continuous variable in analysis.

Parent respect and identification. Parent respect and identification was assessed by the extent to which students identified with and respected their parents. This measure was adapted from Elder et al. (1996) and concerns how much the adolescent wants to be like, has respect for, and enjoys time with their parents. Specifically, it consisted of three items with six-point scales of disagreement-agreement to the statements: "When I grow up, I'd like to be like my parent/guardian (Item 1)."; "I have a lot of respect for my parent/guardian (Item 2)."; and "I really enjoy spending time with my parent/guardian (Item 3)." Cronbach's alpha was .76; Item factor loadings range from .72 (Item 1) to .90 (Item 3).

Parents' educational expectations. Students were asked "how disappointed would your mother (female guardian)/father (male guardian) would be if you did not graduate from college" using a six point scale ranging from "not at all disappointed," to "very disappointed." Students reported on both parents. These values were summed into one continuous variable for analyses.

Student demographic characteristics. Students were asked to provide gender, ethnicity, and grade information as part of the survey. For the ethnicity question, students were given a list and told that they could mark all that apply. The following categories were used in the analysis: White, African American, Hispanic or Latino/Latina, Native American, and Multiracial.

Rural identity. Students completed five items to assess the extent of rural identity development. This measure was modified from Phinney's (1992) Multigroup Ethnic Identity Measure (MEIM) with permission. The items were altered to determine a rural identity commitment rather than an ethnic identity commitment. Specifically, this measure consisted of five items with responses on six-point scales of not at all like me-a lot like me to the statements: "I have a clear sense of my rural background and what it means for me (Item 1)."; "I am happy that I live in a rural community (Item 2)."; "I have a strong sense of belonging to my own rural community (Item 3)."; "I have a lot of pride in my rural background (Item 4)."; "I feel a strong attachment towards my rural background (Item 5)." Cronbach's alpha was .91; Item factor loadings range from .75 (Item 1) to .91 (Item 4).

Perceptions of local job opportunities. Participating students completed seven items on a six point scale (1 = "strongly disagree" to 6 = "strongly agree") assessing their views on employment prospects and local economic conditions. These items were adapted from multiple sources (Conger, Conger, Matthews, & Elder, 1999; Elder, Eccles, Ardelt, & Lord, 1995) and included questions such as: "It is easy to get a good paying job around here," and "There have been a lot of business failures in our area." Results of an EFA indicated that these items formed two factors which accounted for 34.3% and 26.2% of the variance. The first factor was positive perceptions of the local economy and job opportunities while the second factor was negative perceptions of the local economy and occupational opportunities. A follow up confirmatory factor analysis (CFA) yielded a RMSEA of .07 and CFI of .95, indicating that the two-factor model was an appropriate fit. The positive perceptions of the local economy and job opportunities factor was used in the current analysis. A composite score was calculated by averaging students' responses across the three items. Cronbach's alpha for this factor was .69.

Adult residential plans. Students were asked to indicate where they *want* to live when they are 30 years old. Responses categories included: (a) same area or town as now, (b) another rural area or town in my state, (c) small city in my state, (d) large city in my state (e) small city in another state, (f) large city in another state, and (g) another country. Participants could also indicate they were unsure of their residential plans at age 30. For analysis purposes, data were collapsed into three categories: (a) home state; (b) another state; and (c) unsure.

School Characteristics. School level information from the National Center for Education Statistics (NCES) Common Core of Data was obtained on schools' college proximity (distance to closest college/university in miles), percent of students receiving federally funded free/reduced lunch, and geographic locale codes (small town, rural distant/fringe, rural remote).

Curricular program. Students were asked to identify what type of high school curricular program they were enrolled in. They were asked to choose from six programs: general high school program, college prep/academic, vocational/technical/business, agricultural education, other specialized program, or alternative/stay-in-school/dropout prevention program. Students could also select "I don't know." For the current study, all students were dichotomized into two groups for analysis (college prep = 1; all other programs = 0).

Academic achievement. Teachers' view of students' academic achievement was assessed by asking teachers to indicate which "best describes this student's grades in school this year?" Response options ranged from 8 = "Mostly A's" to 1 = "Below D's." This variable was treated as a continuous variable in the analyses.

Postsecondary preparation. This variable assessed the extent to which adolescents prepare for their future after high school graduation. This variable was measured by averaging four items with four-point scales of never-more than five times to the statements: "Talked with a guidance counselor or other advisor about college? (Item 1)"; "Visited a college campus? (Item 2); "Searched for college courses or programs available by the internet? (Item 3)"; "Talked with your parents about how to pay for college? (Item 4)"; Reliability statistics for one-factor model are .67; Item loadings for one-factor model range from .62 (Item 2) to .74 (Item 3).

Academic self-concept. Students were asked to rate how good they were in several subjects including math, science, English/language arts, social studies, and other classes on a seven point scale (1 = "not good

at all" to 7 = "very good") (Jodl et al., 2001). These items were developed by Eccles and colleagues and have strong psychometric properties, including predictive validity (Eccles, 1983). An EFA demonstrated that these five items formed a single factor which accounted for 50% of the variance. A CFA was then undertaken and yielded a RMSEA of .1, suggesting that the model was not a good fit. However, the NFI and CFI both indicated good model fit (i.e., .95 and .96, respectively). The standardized estimates of item loadings ranged from .60 to .75, except for the item "How good are you in mathematics?" which had a lower loading of .38. Nonetheless, all items were retained to form the latent variable academic self-concept. Cronbach's alpha was .73, which was similar to the .78 reported by Jodl et al. (2001). Items were coded such that a higher score indicated higher academic self-concept. The composite score was obtained by computing the mean rating across items.

School valuing. Twelve items on a six-point scale (1 = "strongly disagree" to 6 = "strongly agree") were included to assess students' value for school and whether they viewed it as a pathway for later opportunities in life. These items were adapted from previous measures created by Voelkl (1996), Lapan, Gysbers, and Petroski (2001), and Jodl et al. (2001), and studies using these items have demonstrated that they predict academic achievement and classroom engagement (Finn & Frone, 2004). An EFA indicated that these items formed two factors which accounted 39% and 14% of the variance, respectively. The first factor was labeled *positive school value* as the five-items that loaded on this factor referred to the positive value of school. For example, these items included "most of what I learn in school will be useful when I get a job," "the kind of education I'm getting here will help me later on," and "dropping out of school would be a huge mistake for me." Cronbach's alpha was .85. The second factor was labeled *negative school value* as these five items referred to participants' negative views regarding the value of school. For example, these items included "many of the things we learn in class are useless" and "school is often a waste of time." Cronbach's alpha was .74. Two items loaded on a third component but did not form a reliable measure so these were dropped. A CFA was then indicated that the two-factor model provided a good fit as the NFI and CFI were .95 and .96, respectively, and the RMSEA of .08 suggested fit was acceptable. The current study used the positive school value factor; it accounted for a greater proportion of variance and yielded a higher internal consistency estimate. The standardized item loadings on this latent factor ranged from .65 to .85. The composite score was obtained by computing the mean rating across items.

Classification of work- and college-bound youth. Students were asked about their educational and occupational expectations and aspirations. Previous studies of work-bound rural youth have identified work status through actual labor status after high school (e.g., Rojewski, 1999); however, such information was not available for this investigation. As such, it was decided to use educational and occupational expectations rather than aspirations to classify students. Although it is recognized that what adolescents aspire to accomplish academically and occupationally may not translate into actual postsecondary enrollment and completion or occupational attainment, using the educational and occupational expectation information (i.e., what adolescents report they plan to do) may provide a more realistic assessment of intentions over aspirations (i.e., what adolescents would most like to do). Students were asked: *Do you plan to continue your education after high school?* Answer choices included yes, no, and unsure. Students were also asked: *Do you plan to work right after high school because you do not plan to continue your education right away?* Answer choices included yes, yes but undecided/unsure about the job, and no. Students were classified into one of four groups: *work-bound* (these students did not plan to continue their education and planned to work right after high school); *college-bound* (these students plan to continue their education and not work); *work/college-bound* (these students plan to continue their education, but also plan to work directly after high school); and *work-bound-unsure* (these students plan to work directly after high school but are unsure if they want to continue their education beyond high school).

Analytic Strategy

To answer the two research questions we employed two analytic strategies. First, descriptive information is provided to identify the percentage of rural youth who were classified into each of the four groups (Research Question 1). Second, multinomial logistic regression was undertaken to predict work- or college-bound membership based on individual, family, school, and schooling-experience variables (Research Question 2). Multinomial logistic regression is an appropriate analytic strategy when the dependent variable is categorical and the goal is to determine membership into a given group based on the influence of independent variables in the model (Tabachnick & Fidell, 2007). Multinomial logistic regression requires that each group be compared to a reference group. This is similar to ANOVA analysis in

which three or more groups must be compared pairwise because simultaneous comparison is not possible. Because the focus of this analysis was on rural work-bound youth, the *college-bound* group served as the reference group. The relative contribution of each independent variable in predicting group status was evaluated by interpretation of an odds ratio. A statistically significant odds ratio indicates that as a given independent variable increases one standard deviation unit, the odds increase (or decrease) that students are members of the target group relative to the reference group. An additional benefit of interpreting the odds ratio is that the ratio provides information on the magnitude of the independent variable's relationship to group membership.

For the missing data for the explanatory variables with exceptions for gender and race/ethnicity, we employed a multiple imputation technique with the *ice* option in the Stata software package (Royston, 2004). We generated five data sets with five different sets of imputed values, and averaged the coefficients and standard errors from analyses across the five data sets using the *mim* option in Stata (Royston, 2004). To address the nested nature of the current data (i.e., students within sampled schools), we used the *cluster* option in Stata, which generates robust standard errors by downwardly adjusting for the inflated standard errors resulting from the violation of the independent errors assumption (Rogers, 1993).

Results

This section describes the findings with respect to research questions one and two.

Research Question 1

What pathways do rural youth expect to follow as they transition to adulthood?

Results indicated that the majority of students in this study were *college-bound* (n = 4448, 56.0%) whereas, approximately one third of the students (n = 2685, 33.8%) were *work/college-bound*. Few students were *work-bound* (n = 368, 4.6%) or *work-bound-unsure* (n = 442, 5.6%). Although *work-bound* students did not expect to continue their education, 20.2% aspired to continue their education (with the majority aspiring to attend or complete a two-year program at a vocational, technical, or community college). Overall, 9.7% of *college-bound* students aspired to attend or complete a two-year program, 37.9% aspired to complete a four-year degree, and 48.4% aspired to obtain an advanced degree. Some *work/college-bound* students (21.3%) aspired to attend or complete a two-year degree program, whereas the majority aspired to complete a four-year degree (40.8%) or an advanced degree (30.7%). As expected, many *work-bound-unsure* students were also unsure when asked how far they would like to go in school (37.1%), whereas 18% aspired to complete high school only, 29.2% aspired to attend or complete a two-year degree program, 12.7% aspired to complete a four-year degree, and 2.9% aspired to complete an advanced degree.

Research Question 2.

What characteristics of the student, student's family, school, and schooling experiences influence the pathway a student expects to follow?

Descriptive statistics for all predictor variables are presented in Table 1. Results of the multinomial logistic regression are presented in Table 2. Results indicated that several student, family, school, and schooling experiences were associated with work-bound status. All three work-bound groups were more likely to come from families that experience greater economic hardship and have lower expectations for their adolescent to complete college. In addition, *work-bound* students were more likely to report greater levels of respect and identification with parents. Although *work-bound* and *work-bound-unsure* students did not differ from *college-bound* students on parents' level of education, *work/college-bound* students' parents have slightly lower levels of education compared to *college-bound* students.

In general, girls were less likely to be in one of the three work-bound groups than boys. Regarding race/ethnicity, Hispanic/Latino students were twice as likely to be *work-bound-unsure* relative to *college-bound* students. Native American students were nearly three times as likely to be *work-bound* relative to *college-bound* students.

Table 1.
Descriptive Statistics For Work-Bound and College-Bound Students

	All		Work-bound		Work/ college-bound		Work-bound-unsure		College-bound	
Explanatory Variables	M	(SE)	M	(SE)	M	(SE)	M	(SE)	M	(SE)
Family Characteristics										
Family Economic Hardship	1.80	0.01	2.04	0.06	1.88	0.02	2.03	0.05	1.70	0.01
Parents' Level of Education	13.65	0.03	12.91	0.14	13.39	0.05	13.08	0.13	13.93	0.04
Parent Respect and Identification	4.31	0.01	4.05	0.07	4.27	0.02	4.02	0.06	4.39	0.02
Parent Expectation for College	4.61	0.02	2.37	0.08	4.48	0.03	3.35	0.08	5.01	0.02
Student Characteristics										
Female	0.53	0.01	0.24	0.02	0.51	0.01	0.40	0.02	0.57	0.01
Race/Ethnicity										
White	0.67	0.01	0.69	0.02	0.63	0.01	0.57	0.02	0.70	0.01
African American	0.07	0.00	0.03	0.01	0.08	0.01	0.07	0.01	0.06	0.00
Hispanic/Latino	0.10	0.00	0.07	0.01	0.12	0.01	0.21	0.02	0.09	0.00
Native American	0.04	0.00	0.08	0.01	0.04	0.00	0.04	0.01	0.03	0.00
Multiracial	0.12	0.00	0.14	0.02	0.14	0.01	0.11	0.01	0.12	0.00
Grade Level	2.39	0.01	2.39	0.06	2.26	0.02	2.18	0.05	2.48	0.02
Rural Identity	2.91	0.01	2.79	0.07	2.90	0.02	2.66	0.05	2.96	0.02
Positive Perceptions of Local Job Opportunity	2.95	0.01	2.96	0.06	3.00	0.02	3.08	0.06	2.91	0.02
Residential Aspirations										
Home state	0.35	0.01	0.46	0.03	0.36	0.01	0.39	0.02	0.34	0.01
Another State	0.30	0.01	0.26	0.02	0.31	0.01	0.29	0.02	0.31	0.01
Have Not Thought or Decided	0.34	0.01	0.28	0.02	0.33	0.01	0.32	0.02	0.35	0.01
School Characteristics										
College Proximity	36.68	0.34	39.81	1.53	36.52	0.58	36.11	1.30	36.57	0.45
Percent Free/Reduced Lunch	0.48	0.00	0.48	0.01	0.49	0.00	0.51	0.01	0.47	0.00
Rurality										
Small town	0.20	0.00	0.23	0.02	0.19	0.01	0.23	0.02	0.20	0.01
Rural fringe/distant	0.39	0.01	0.32	0.02	0.42	0.01	0.36	0.02	0.38	0.01
Rural remote	0.41	0.01	0.45	0.03	0.39	0.01	0.42	0.02	0.43	0.01
Schooling Experiences										
College Prep Program	0.18	0.00	0.03	0.01	0.13	0.01	0.02	0.01	0.24	0.01
Achievement	6.23	0.02	4.77	0.10	5.92	0.03	5.00	0.08	6.66	0.02
Postsecondary Preparation	2.10	0.01	1.56	0.03	2.04	0.01	1.74	0.03	2.21	0.01
Academic Self Concept	5.02	0.01	4.11	0.07	4.91	0.02	4.23	0.06	5.24	0.02
School Valuing	4.30	0.01	3.06	0.07	4.32	0.02	3.67	0.05	4.45	0.02
N	7943		368		2685		442		4448	

Table 2.
Odds Ratios from Multinomial Logistic Regression Predicting Work bound Students

	Base category = College-bound					
Explanatory Variables	Work-bound		Work/college-bound		Work-bound-unsure	
Family Characteristics						
Family Economic Hardship	1.38	***	1.15	***	1.26	***
Parents' Level of Education	1.00		0.98	*	1.00	
Parent Respect and Identification	1.19	*	1.01		1.07	
Parent Expectation for College	0.46	***	0.84	***	0.63	***
Student Characteristics						
Female	0.42	***	0.86	**	0.70	**
Race/Ethnicity (white omitted)						
African American	0.67		1.22		1.34	
Hispanic/Latino	0.79		1.22		2.12	***
Native American	2.83	**	1.17		1.13	
Multiracial	1.16		1.15		1.03	
Grade Level	1.17	*	0.89	***	0.90	*
Rural Identity	1.20	*	1.03		1.01	
Positive Perceptions of Local Job Opportunity	1.07		1.06	*	1.20	***
Residential Aspirations (home state omitted)						
Another State	0.89		0.93		0.85	
Have Not Thought or Decided	0.87		0.94		0.94	
School Characteristics						
College Proximity	1.00		1.00		1.00	
Percent Free/Reduced Lunch	1.95		1.24		2.60	**
Rurality (rural remote omitted)						
Small town	1.21		1.09		1.17	
Rural fringe/distant	0.79		1.21		0.95	
Schooling Experiences						
College Prep Program	0.31	***	0.71	***	0.22	***
Achievement	0.70	***	0.89	***	0.71	***
Postsecondary Preparation	0.40	***	0.87	**	0.61	***
Academic Self Concept	0.78	***	0.93	*	0.74	***
School Valuing	0.56	***	1.01		0.77	***
Log likelihood	-6647.06					
Pseudo (McFadden's) R^2	0.16					
N	7943					

*** $p < .001$, ** $p < .01$, * $p < .05$

Grade level was also a significant predictor of status. Students in the upper grades were more likely to be *work-bound*, but less likely to be *work/college-bound* or *work-bound-unsure* relative to *college-bound* students. Students who had higher levels of rural identity were more likely to be *work-bound* relative to *college-bound* students. Finally, students who had more positive perceptions of the local economy were more likely to be *work/college-bound* and *work-bound-unsure*. Interestingly, after controlling for all

other variables in the model, residential aspirations did not predict status.

The only school characteristic variable that predicted work-bound status was percent of student body receiving free/reduced lunch. *Work-bound-unsure* students were more likely to attend schools with greater levels of school poverty. Although school-level variables did not predict status, all schooling experience variables were significant predictors of status. Students who were in a college preparation program, had higher levels of achievement, had taken part in postsecondary preparation activities, and had higher levels of academic self-concept were less likely to be members of any work-bound group. In addition, students with higher school valuing were less likely to be *work-bound* or *work-bound-unsure.*

Discussion

The focus of this investigation was on understanding which career pathways rural youth planned to take as they transition to adulthood. Results indicated that most rural youth in this sample (56%) planned to continue their education after high school. In addition, of those who planned to continue their education, nearly half aspired to obtain an advanced degree. These results suggest those rural youth who planned to attend college had high aspirations for their futures. These findings are consistent with other studies that suggest today's youth have some of the highest aspirations of any generation (Reynolds, Stewart, Macdonald, & Sischo, 2006). However, nearly half of the students in this study planned to enter the workforce after high school with the majority planning to work while continuing their education. Finally, a small percentage of students (4.6%) planned to work after school with no plans to continue their education (*work-bound*) while 5.6% of students planned to work, but were unsure of whether they would continue their education (*work-bound-unsure*).

Although it is unlikely that all of the *college-bound* students in this study will enroll in or complete postsecondary education, it is encouraging nonetheless to see so many rural youth expecting to continue their education. For those students expecting to work while going to school, the literature suggests that such an approach can be problematic (Bozick, 2007; Bozick & DeLuca, 2005). Students who delay furthering their education after high school are less likely to complete a bachelor's degree even after controlling for lower family SES and poor high school performance (Bozick & DeLuca, 2005). In addition, students who delay continuing their education typically do so because of limited family income or poor academic preparation. Students from low-income families often must work to pay for school-related expenses. For these individuals, work is often necessary to make postsecondary education possible, but having to work can reduce the likelihood that one will complete a degree program (Bozick, 2007).

A second focus of this investigation was to examine relations of individual, family, school, and schooling experiences to educational and occupational plans after high school. This analysis provides a picture of what characteristics typify those students who plan to go on to college and those who plan to work after high school. Results of the logistic regression indicated that family economic hardship and parents' expectation for college were two of the strongest predictors of whether a student was college- or work-bound. This finding is consistent with other studies of rural work-bound youth (Rojewski, 1999) and suggests the importance of the family context in rural youths' future plans. Although these findings are informative, two other findings are particularly noteworthy and in need of further exploration. The first is the finding that all three work-bound groups did not differ significantly from college-bound youth on residential aspirations after controlling for all other variables in the model. On average, about one third of rural youth in this study wanted to remain in their home state after high school. This finding suggests that while college-bound youth may be more likely to leave their community to further their education, work-bound youth (regardless of future educational expectations) may also feel pressure to leave their home communities in order to find work or further their education.

Results indicated that the three work-bound groups differed from *college-bound* youth on almost every schooling experience. Work-bound students (regardless of future educational expectations) were more likely to be in the general or vocational program, had lower levels of achievement, took part in fewer postsecondary preparation activities, and had lower academic self-concept. In addition, *work-bound* and *work-bound-unsure* students had lower levels of school valuing. This finding suggests that rural schools play a key role in shaping the educational and occupational aspirations of rural youth regardless of students' background experiences. This finding is important given that schooling experiences are malleable and school personnel can play an important role in preparing rural youth for their futures.

Limitations and Future Directions

The results of this study provide a number of contributions to our knowledge of work-bound rural youth. However, these results must be interpreted in light of a number of limitations. Perhaps the most important limitation is that the design of the study was cross-sectional, with data being collected at a single point in time. For this reason it was necessary to derive work-bound groups based on rural students' self-reported educational and occupational expectations. We agree with others who suggest that classifying students based on actual labor-force status may provide a more valid indicator of work-bound status (e.g., Rojewski, 1999; Rojewski & Kim, 2003). However, without access to this information, we relied on students self-reported expectations about their futures. A second limitation of this study is that only a few community characteristics of the study schools were examined.

The limitations of the study proscribe a number of possible directions for additional research. Future research should follow rural students longitudinally to better understand the degree to which they achieve their educational and occupational expectations and aspirations. More importantly, future studies should focus on the various pathways that rural youth take to enact their goals because there is greater variability in the way adolescents arrive at similar positions in adulthood (Eccles et al., 2003, Elder, 1999; Elder & Conger, 2000). Future research should also consider whether factors considered in this study are moderated by diverse contextual factors found in rural communities. A number of rural education investigators argue that rural communities can be quite heterogeneous on a number of important factors (Arnold et al., 2007; Brown & Schafft, 2011; Coladarci, 2007). We agree that rural communities are diverse and as such require methods to capture and appreciate such diversity. However, few studies consider the rural context and even fewer studies employ methods that provide more qualitative and context-rich information about adolescents making decisions about the world of work while growing up in a rural community (e.g., Burnell, 2003).

Conclusion

The goal of this study was to better understand the transition pathways of a more recent cohort of rural youth. Our results indicate that over half of the students in this study plan to attend college instead of entering the workforce. In addition, one third of the students plan to work and attend college while only a small percent plan to work without furthering their education. Although these numbers are encouraging, our analysis also reveals that those youth who plan to work after high school (regardless of educational expectations) may face a number of obstacles in attaining postsecondary education because of family economic hardship, low parent support for postsecondary education, and fewer positive schooling experiences. Although we did not address why the youth in our study plan to work, the literature suggests that many of these youth do so in order to pay for school or school related expenses (Bozick, 2007). While it may be unrealistic for rural educators to discourage students from working while going to school, rural educators are in a unique position to help students consider options that may limit the negative impact that work can have on college attainment. One possibility would be to help rural youth identify and apply for grants, scholarships, and/or loans to help reduce the number of hours rural youth must work while attending college. A second possibility would be for school personnel, particularly school counselors, to help rural youth identify more enriching job opportunities that promote career development and are aligned with students' academic interests while discouraging work in "dead end" jobs that provide few other benefits beyond a paycheck.

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