How Far to Go? Community Influences on Youth Educational Aspirations in Rural, Resource-Dependent Places

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Rural communities in forested regions across the United States are in the midst of a transformation driven by a complex mixture of economic, policy, and demographic dynamics. This research examines, through survey results, rural youth educational aspirations in two forest-dependent regions and the role that perceptions of the local school, perceptions of community, and views on economic trajectory play in shaping rural youths' aspirations. Although school perceptions, school and community engagement, grades, and identifying as a girl were positively related to educational aspirations, community perceptions were negatively related. These quantitative findings highlight the contradictory role that higher education may play for those who must choose between education and their families and home and reinforce similar findings from qualitative research on rural youth.

Keywords: rural youth, educational aspirations, school perceptions, community perceptions, forest-located communities

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In rural communities, schools often function as the epicenter of local activity. Although public education is mandated and funded by the state and federal governments, school boards are locally elected, and many school districts overlay the bounds of rural communities, fostering identity, purpose, and engagement (Bauch 2001; Schafft and Jackson 2010; Schafft and Biddle 2013; Schafft 2016). In the United States, 12.4 million students (24 percent) attend rural public schools; meanwhile, thirty-two thousand schools (32 percent) and 57 percent of school districts are considered rural (Aud et al. 2013). However, rural students are isolated geographically and are frequently situated in a context of limited educational and economic opportunities: scarce nearby options for postsecondary education, higher rates of poverty, and constricted local employment choices (Byun et al. 2012). Despite the substantial numbers of rural students and the limited opportunities they have, "educational research and training focused on the people and places at the spatial peripheries remains very much at the scholarly and disciplinary peripheries as well" (Schafft 2016, 138).

Many rural places in the United States are characterized by a historical, cultural, and economic reliance on natural resources such as forestry, agriculture, and mining. Despite certain similarities between resource-based economies, each industry has followed a different trajectory of boom and bust over time and over space. Forest-dependent communities have experienced declines in manufacturing employment since global competition, technological changes, and recession-induced contractions began in the 1980s and accelerated in the 1990s (Woodall et al. 2011). During these decades, a shift in private land ownership structures from vertically integrated companies to timber investment management organizations and real estate investment trusts has transformed forest production and management on the ground as well, resulting in increased land transfers and local uncertainty (Bliss et al. 2010; Jin and Sader 2006). Furthermore, changes in pulp and paper markets have led to a substantial number of mill closures in some states (Crandall, Anderson, and Rubin 2017). These economic changes have left many communities at the edge of viability for maintaining critical institutions such as schools.

As a result of these economic forces, some communities have responded to decreasing availability of jobs in traditional manufacturing industries by targeting increases in nature-based tourism, amenity migration, and second-home ownership, leading to the rise of amenity-oriented rural economies (Deller et al. 2001; Gosnell and Abrams 2011; Reeder and Brown 2005). However, the role of these efforts in sustaining viable communities is variable, and some areas with focused amenity-driven development see increases in inequality (Ohman 1999; Sherman and Schafft 2022, this issue). In communities where industrial declines have occurred and amenity development has yet to occur, local employment opportunities may be largely invisible, relegated to either dismissal as "dying" industries or as yet-to-be-realized "potential" jobs of suspect quality.

Training, retaining, and recruiting skilled workers is a challenge for many rural places. Rural parents have lower postsecondary attainment rates and lower educational expectations for their children on average than parents in suburban and urban areas, possibly leading to lower youth educational aspirations (Provasnik et al. 2007; Roscigno and Crowley 2001; Roscigno, Tomaskovic-Devey, and Crowley 2006). Rural schools eager to find and keep effective teachers and educational leaders face the same challenges that other rural employers find (Monk 2007; Provasnik et al. 2007). Compounded by the socioeconomic challenges of rural communities, producing the next generation of skilled labor by educating and training local youth remains elusive.

How does growing up in a rural, resource-rich community in economic transition affect youth today? The literature, discussed later, shows that family, community, school, and place all influence youth aspirations for their educational and occupational attainment. However, research on rural youth has primarily focused on agricultural communities, often in the nation's "bread basket" (Carr and Kefalas 2009; Kirkpatrick Johnson, Elder, and Stern 2005), and studies of forest-dependent communities have typically explored the relationship between labor-market outcomes for adults

(Helvoigt, Adams, and Ayre 2003; Kusel et al. 2000).

Other research in the companion issue to this volume uses in-depth interviews to articulate the role of family and rural origin to explore adult migration decisions, employment outcomes, and educational aspirations (Francis 2022; Niccolai, Damaske, and Park 2022), and how high-aspiration rural youth in the South navigate barriers to college (Parsons 2022, this issue). Our research adds to that work and expands our understanding of the role that growing up rural plays for youth at this moment in time by assessing how local context influences the educational aspirations of our next generation of potential rural workers and entrepreneurs. To do this, we analyzed more than two thousand survey responses from middle and high school students about school, community, place, and their aspirations for the future in two forest-dependent study areas.

Objectives

This goal of this research was to investigate how local context influences rural youth educational aspirations in two forest-dependent regions in economic transition. Our goals were to

- assess variation in rural youth educational aspirations;
- evaluate community influences on rural youth aspirations, including perceptions of local schools, perceptions of their community, engagement in school and community activities, and perceived local economic trajectories;
- determine barriers to rural youth engagement in school and community activities; and
- determine barriers to rural youth pursuing their educational aspirations.

LITERATURE REVIEW

Pamela MacBrayne (1987, 135) characterizes a profusion of research on youth aspirations from the 1960s through the early 1970s, defining aspirations as "an individual's desire to obtain a status object or goal such as a particular occupation or level of education." Consistently, aspirations commonly exceed expectations and while expectations tend to decline with age, aspirations remain high. Common influences on aspiration include socioeconomic status, race, economic class, community size, parents and their academic achievement level, peers, teachers, and counselors. Youth perceptions of support and barriers to achieving goals have also been shown to influence educational aspirations (Bajema, Miller, and Williams 2002).

Russell Quaglia and Casey Cobb (1996, 130) propose a theory of student aspirations that are composed of both inspiration and ambition. They define aspirations as "a student's ability to identify and set goals for the future, while being inspired in the present to work towards these goals." Conceptualizing aspirations this way takes into account the role of schools and their influence on youth aspirations. The drive to achieve is subject to influence and schools can foster a culture where achievement is celebrated. Although assimilation pressure can exist in groups that may discourage achievement beyond one's peers, schools can counter this tendency by encouraging student risk-taking and diversity (McClelland 1961; Quaglia 1996; Quaglia and Cobb 1996).

Given the lack of postsecondary educational institutions in or near many rural areas, educational aspirations for youth are often associated with needing to leave their communities (Carr and Kefalas 2009; Corbett 2020; Turley 2009). If youth aspirations are incompatible with opportunities in their community, youth are forced to prioritize long-term goals and aspirations that may be in conflict with one another (McLaughlin, Shoff, and Demi 2014). The lower educational aspirations found in rural youth relative to their suburban and urban counterparts may be derived both from reliance on lower skilled jobs present in their communities as well as emotional attachments to family and rural life (Elder, King, and Conger 1996; Elder and Conger 2000).

Local Schools, Communities, and Economies

Schools in rural communities function as a critical locale for bringing together families of varied backgrounds, supporting civic interaction,

and fostering workforce development that influences youth educational and residential aspirations (Irvin et al. 2011; Schafft and Biddle 2014). Participation in school and community activities such as athletics or clubs, earning good grades, and planning for the future strengthen youth attachment to their community, family, and peers (Fredricks and Eccles 2006; Massoni 2011). Because of the small size of schools in rural locations, this relationship between schools and communities can be magnified (Schafft and Biddle 2014).

Local schools and economies are also deeply interconnected, and local economic activity has a large impact on the sustainability of schools themselves. As local populations decrease in response to economic decline or increase as a result of community development, schools may experience enrollment fluctuations that affect school capacity and effectiveness in meeting the needs of students (Schafft et al. 2014). Rural schools are also the largest employers in many rural communities. Beyond sustaining local jobs, they have also been shown to contribute to lower unemployment rates, increased housing values, and income equality (Brasington 2004; Lyson 2002; Sell and Leistritz 1997; Sipple, Francis, and Fiduccia 2019). A role many schools embrace as part of their core mission is to develop future workers who can operate in a globalized economy where adaptability and mobility are valued; however, the postsecondary pathways that schools typically prepare youth to follow to fulfill these roles often lead them outside their communities, thus weakening the communities in which said schools are located (Budge 2006; Carr and Kefalas 2009; Peters 2012; Petrin, Schafft, and Meece 2014).

Research has explored the complex processes in rural communities that may shape youth educational aspirations, though past rural youth studies have primarily explored comparisons with urban counterparts or examined populations in the context of farms or of oil and gas development (Bajema, Miller, and Williams 2002; Carr and Kefalas 2009; Kirkpatrick Johnson, Elder, and Stern 2005; Schafft and Biddle 2014). Victoria Schaefer and Judith Meece (2009) investigate the impact of socioeconomic status, mathematics achievement, and school perceptions on rural youth aspirations but did not account for community perceptions. In addition, Soo-yong Byun and colleagues (2012) explore the relationship between social capital and educational aspirations, accounting for family and school variables but without including geographic or community context. Because most research focuses on one aspect influencing aspirations, the need to test a more comprehensive model of multiple factors that have been shown to matter remains. Our research thus adds to the literature on youth aspirations by allowing for the simultaneous testing of several aspects known to influence educational aspirations (engagement, school perceptions, community perceptions, and perceptions of economic opportunity). In addition, by surveying students in rural forest-dependent communities in the midst of economic transition, we are able to also highlight the unique rural context impacting these relationships where higher education means moving away, and limited local realities may influence the aspirations of youth.

METHODS

Maine and Oregon are both heavily forested states with strong economic and cultural ties to the forest products industry. As is characteristic of landownership patterns throughout the West, more than half of Oregon's forests are federally owned by the Department of Agriculture's Forest Service or Department of the Interior's Bureau of Land Management; meanwhile, Maine's forests are primarily privately owned. As the forest industry transitions, communities in both states have seen mixed socioeconomic outcomes (Chen, Lewis, and Weber 2016; Eichman et al. 2010; Lewis, Hunt, and Plantinga 2002; Vail 2010). This study focuses on Piscataquis County, Maine, and Coos County, Oregon, as representative of a wide spectrum of forest-dependent conditions and histories. As is common in rural, resource-rich areas, the populations of both counties are older, slower-growing, and poorer than the United States as whole; both are dominated by forest land (table 1).

Piscataquis is a large, landlocked rural county in northern Maine (figure 1). Recent decades have seen increased conservation ease-

Table 1. Study Area Basic Demographic Information

	Piscataquis County, Maine	Coos County, Oregon	United States
Population	16,887	63,308	322,903,030
Percent population change from 2000 to 2018	–2.0	0.8	14.7
Population density (per square mile)	4.3	39.7	91.4
Median age	51.0	48.5	37.9
Median household income	$39,470	$43,308	$60,293
Median earnings	$27,301	$25,766	$33,439
Percent population in poverty	19.2	17.12	14.05
Percent forested	95	85	33
Percent employment in natural resources and mining	2.6	5.3	1.6
Percent employment in manufacturing	28.8	9.8	10.2
Percent manufacturing in wood products	13.8	52.0	3.2

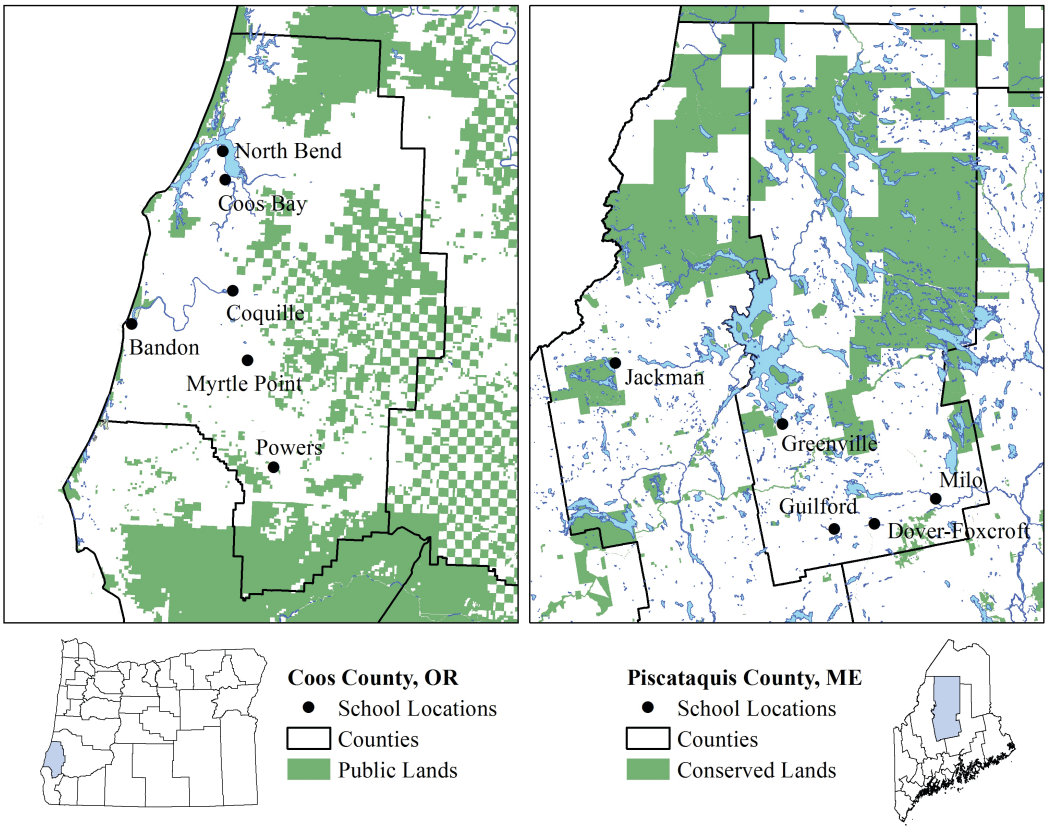
Source: Authors' tabulation based on Census Bureau (2018) and BLS (2018).
Notes: Population, age, income, earnings, and poverty data from U.S. Census Bureau ACS 5-year estimates (2014–2018). Employment data from Bureau of Labor Statistics Quarterly Census of Employment and Wages (2018).

ments on forest land and investments in recreation and amenity infrastructure in the county, building on the popularity of outdoor tourism draws such as the 100-Mile Wilderness along the Appalachian Trail, Moosehead Lake, and the 209,000-acre Baxter State Park, which includes Katahdin and the terminus of the Appalachian Trail. The county seat, Dover-Foxcroft, is the nearest service center for the majority of the county, and Piscataquis County is near the newly established (2016) Katahdin Woods and Waters National Monument. At the request of stakeholders, we included one school from the adjacent northern Somerset County, which had similar characteristics.

Coos County is located on the Pacific coast in south-central Oregon (figure 1). The northern area includes part of the Oregon Dunes National Recreation Area, while much of the remainder of the county is in public ownership under state and federal management. The deep-water port of Coos Bay has long been a significant advantage for the area, dominated by shipping logs and wood products from the extensive forest. Coos Bay remains the largest population concentration as well as main service center, although smaller towns are spread along the coast and interior river valleys, including the county seat of Coquille.

Although population and population density are higher in Coos County, both counties are isolated, with hours of drive time from major population centers. Interstate highways do not pass through either county. Despite recent investments in amenity and recreation infrastructure in both counties, neither are areas of rural gentrification (Sherman and Schafft 2022, this issue). Employment data highlights the unique nature of these counties (table 1). Piscataquis County still depends heavily on manufacturing, unlike the United States as whole. Coos County has a higher proportion of employment in the nonmanufacturing side of natural resources than the United States as well as a high concentration of manufacturing employment in wood products. Local economies in both regions have stagnated in recent decades, and both are growing slower than the nation and their respective states. For these reasons, we anticipated that the impacts on educational aspirations of factors such as school perceptions, community perceptions, and economic perceptions may be similar across locations. One key difference related to educational aspirations is the presence of a community college in Coos Bay; no similar higher education and training opportunity is readily accessible for youth in Piscataquis County.

Figure 1. Location of Study Counties and Locations of Schools



Source: Authors' map.

Sampling

Local steering committees were established in Piscataquis and Coos County Counties using Cornelia Flora, Jan Flora, and Stephen Gasteyer's (2016) Community Capitals Framework, which examines communities through a lens of assets rather than deficits and emphasizes that communities are made up of seven capitals: natural, cultural, human, social, political, financial, and built. In partnership with local organizations (University of Maine and Oregon State University Cooperative Extension, Appalachian Mountain Club in Maine, and Coos Watershed Association in Oregon), steering committee members were invited from each of the study communities within the counties and targeted to represent each of the community capitals. Survey development was guided by previous research as well as stakeholder involvement and engagement, with steering committees providing feedback about areas of concern related to youth in their communities. In addition to being anonymous, personal and sensitive information was requested sparingly; only gender, age, race, and general questions about perceived family economic status were asked. Participants were permitted to skip any question they did not wish to answer.[1]

The Appalachian Mountain Club and Coos Watershed Association, which had developed relationships with local school administrators, provided outreach support. The questionnaire itself was administered electronically through public secondary schools in Piscataquis and Coos Counties during the 2018–2019 school year. Thus the sampling frame was all enrolled

1. This research was approved by the University of Maine Institutional Review Board, application #2017-07-18.

students in every school that participated: eight of fifteen potential Oregon study area schools and five of seven potential Maine study area schools elected to participate. The precise dissemination method varied slightly by school based on each school's schedule and infrastructure. We provided the electronic Qualtrics survey link to the principal or technology specialist. Eight of the thirteen participating schools had fewer than three hundred students, sometimes across six grades; these schools tended to have all students in a simultaneous designated period, such as homeroom or a multiuse period, during which the link could be sent to all students at once. This typically ensured that every student present that day completed the survey at the same time, on one day. For larger schools, survey dissemination was pushed to as many classrooms as possible. Students completed the survey on tablets, cell phones, and computers. Many schools had one-to-one technology that provided each student access to a tablet or laptop; other students used computer labs.

Thanks to the cooperation of principals, administrators, and our community partners, this method ensured a good response. Our full final sample contained 2,027 responses. Response rates varied by school, from 23 percent to 74 percent of all enrolled students participating. Response rates by students in attendance on the day the survey was disseminated were 87 percent across all schools and sometimes 100 percent. The high response rates and sample frame of all students should minimize the potential for biased responses in educational aspirations.

Measures

Educational aspirations were measured by asking students how far they wanted to go in school with response options ranging from high school to a Ph.D. or medical school. Using the method of Matthew Irvin and colleagues (2011) and Byun and colleagues (2012), we transformed the original responses into equivalent years of schooling, which allowed educational aspirations to be treated as a continuous variable.

Jennifer Fredricks and Jacquelynne Eccles (2006) measure school and community engagement in athletics and clubs as a simple yes-no response to asking students if they participate; our measures use a more nuanced approach. Students were first asked to indicate all of their involvement activities, such as dance, band, volunteering, agricultural club, or sports. Students were then asked, "On average, how many hours per week do you spend participating in all the above activities combined?" Response categories ranged from zero hours to ten or more hours in increments of two hours. Combined, these provide measures of strength of engagement in school and community activities.

To understand youth perceptions of local economic trajectories, students were asked, "Where do you see your community in the future in terms of jobs and the economy?" Respondents had the options of more jobs and an improving economy, the same number of jobs and the same economy, less jobs and a declining economy, and don't know. Only high school students were asked about the economy.

Multiple belief statements were used in the survey to measure two concepts: school perceptions and community perceptions. Respondents were asked how much they agreed or disagreed with statements using a Likert scale based on Nina Stracuzzi's (2009). To control for other known important individual characteristics, students were asked general questions about grades and family income, along with gender and race.

Barriers

Two questions were posed relating to perceived barriers youth may experience with answers adapted from Duane Bajema, Wade Miller, and David Williams (2002) and with input from the local steering committees. Students were asked to indicate the reasons they are not involved in more school and community activities and provided options such as "It's hard to get transportation," "Activities cost too much money," and "My parents or guardians won't let me participate." Students were also asked about the barrier that could prevent them from going as far in school as they would like. Responses options here related to cost, parental support, the need to work, not being smart enough, not having

Table 2. Likert Scale Mean Responses

School Belief Statements	Mean	Community Belief Statements	Mean
Most of my teachers care about me.	0.60	I like this community.	0.65
I feel accepted at school.	0.53	This is a good place to grow up.	0.57
Teachers believe I can do well.	0.85	This community is safe	0.38
I feel safe at school.	0.51	People can be trusted.	0.06
Students get along with teachers.	0.29	People get along with one another.	0.40
Discipline and rules are fair.	0.24	I feel that I am part of my community.	0.46
I feel prepared for college or trade school.	0.15	I care about my community.	0.87
Parents are involved in school.	0.35	People are willing to help others.	0.57
I like school.	0.02	Community leaders listen to youth.	−0.01
I have a teacher who is a role model.	0.42	This is a close-knit community.	0.69
N = 1279		*N = 1361*	

Source: Authors' tabulation based on Bernsen 2020.
Notes: Range from −2 strongly disagree to 2 strongly agree. Exploratory factor analysis was used to combine relevant statements into one final scale variable for each. Only belief statements used in final scale variable are shown; only respondents who answered at least three belief statements were included.

good enough grades, family responsibilities, and having to move away in order to pursue additional schooling.

Exploratory factor analysis was used to verify whether the multiple belief statements taken together accurately measured a single concept for both perceptions of school and perceptions of community. Cronbach's Alpha was used to measure reliability of each index, or group of questions prior to creating scales; the mean Likert responses and component belief statements used to measure school and community perceptions are shown in table 2.

To assess variation of rural youth educational aspirations (objective 1), independent sample t-tests were used to compare differences between middle and high school students and differences between Maine and Oregon. Significant community factors influencing rural youth educational aspirations (objective 2) were modeled using ordinary least squares (OLS) regression consistent with Irvin and colleagues (2011) and Byun and colleagues (2012). Barriers to youth school and community engagement (objective 3) and educational aspirations (objective 4) were tabulated. Nicole Bernsen (2020) and her colleagues (in press) provide additional details on analysis.[2]

RESULTS

Oregon respondents were 70 percent of the sample and 30 percent were from Maine (table 3). Those identifying as girls made up 50 percent, as boys 45 percent, and as nonbinary, trans, none of these, or no response 5 percent. Middle school students (grades six through eight) constituted 31 percent of the sample and high school students (grades nine through twelve) 69 percent. Although 453 students (22 percent of the total sample) chose not to respond to the question of how far they want to go in school, we garnered responses to this question from 1,574 individuals. For educational attainment, 17 percent said that the highest level of school they wanted was high school, 16 percent indicated two-year community college or trade school, 31 percent chose four-year college or university, 19 percent selected a graduate, master's, or law program, and 17 percent aspired to a Ph.D. or medical school. The mean level of educational aspiration was 16.41 years, or slightly higher than a bachelor's degree. Overall, 83 percent of students planned to pursue postsecondary education, 67 percent planned to earn a bachelor's degree or higher, and 35 percent aspired to earn at least a master's degree.

2. Statistical analysis was conducted using IBM SPSS Statistics 25 software with a *p*-value threshold of .05.

Table 3. Descriptive Statistics for Total Sample

	N	Percent
State		
Maine	591	29.6
Oregon	1406	70.4
Grade		
Middle school: six through eight	478	29.4
High school: nine through twelve	1149	70.6
Gender		
Girls	778	49.7
Boys	702	44.8
Nonbinary, trans, none of these	48	3.0
Choose not to respond	38	2.4
Race or ethnicity		
Asian	22	1.4
Black–African American	25	1.6
Latino–Hispanic	102	6.6
Native American	93	6.0
White–Caucasian	1099	71.3
Two or more	201	13.0
Academic grades		
As and Bs	1229	72.0
Cs, Ds, and Fs	477	28.0
Finances (for food and bills)		
More than enough money	459	27.0
Enough money	608	35.8
Not enough money	127	7.5
Don't know	211	12.4
Choose not to respond	292	17.2
Extracurricular engagement per week		
none	281	16.5
one to two hours	307	18.0
three to four hours	309	18.1
five to six hours	240	14.1
seven to eight hours	193	11.3
nine or more hours	375	22.0
Economic perceptions (only high school)		
More jobs and an improving economy	180	26.9
Same number of jobs and economy	266	39.8
Less jobs and declining economy	222	33.2
N	2027	

Source: Authors' tabulations.

Variation of Rural Youth Educational Aspirations

We assessed variation of rural youth aspirations by school level and state (objective 1). The difference was significant in the level of educational aspiration for middle school students (mean of 16.1) and high school students (mean of 16.6), the latter indicating higher aspirations. Significant differences were also found when comparing Maine students (mean of 16.2) with Oregon students (mean of 16.5); Oregon students expressed higher educational aspirations, overall. Examining students in Maine, the difference between middle and high school youth was not significant; in Oregon, high schoolers expressed significantly higher aspirations.[3]

Community Influences on Rural Youth Educational Aspirations

In our first OLS model using a continuous measure of educational aspirations as the dependent variable, perceptions of school were not significant and perceptions of community had a significant negative effect on rural youth aspirations (model 1 in table 4), indicating that as perceptions of community rose, educational aspirations declined. Student engagement in school and community activities and student academic grades were both significant and positive. Of the control variables, income and race or ethnicity were not significant though gender was significant and positive; girls were more likely than boys to have higher educational aspirations (respondents who indicated trans, nonbinary, other or chose not to answer were not modeled due to small sample size; racial categories were combined into two categories of white, non-Hispanic and all others). We also tested for the effects of state by including a state dummy variable, and potential interaction terms between state and school and community perceptions, and between gender and school and community perceptions, but all were not statistically significant; thus, we elected to keep Oregon and Maine students pooled for our models.

To test the influence of perceptions of the local economy, the sample was restricted to high school student responses. In this second model, student perceptions of the local economy were not significant (model 2 in table 4), although both perceptions of school and community had a significant effect on high school youth educational aspirations (positive and negative, respectively). Similar to the full model, student engagement, academic grades, and identifying as a girl were all significant and positive.

We also tested a dichotomous dependent variable to see whether the difference between youth aspiring to at least a bachelor's degree was significant relative to those who wanted only a high school or community and technical college degree (model 3 in table 4). In this model, school and community perceptions were significant indicators of wanting at least a bachelor's degree, and school perceptions were again positive and community perceptions negative. Engagement hours, grade, and gender (identifying as a girl) continued to be significant and positive. Using the same dichotomous dependent variable in the model of high school responses in order to include economic perceptions did not change the significance or sign of any independent variables from the continuous dependent variable measure.

Barriers to Rural Youth Engagement in School and Community Activities

The rankings of most common barriers to engagement in school and community activities perceived by students was the same in Maine and Oregon (table 5). The most common reasons youth were not engaged in activities were lack of interest and lack of time. Difficulty finding transportation, the availability of few or no activities, and prohibitive cost were the next most frequently mentioned. Parents not allowing participation was the least reported barrier.

3. The standard deviation of educational aspirations was 3.1 for middle school students and 3.2 for high school students; t (825) = 2.67, p = .008. The standard deviation of educational aspirations was also 3.1 for Maine students and 3.2 for Oregon students, respectively; t (908) = 2.00, p = .046. In Oregon, middle school student mean aspirations were 16.1 with a standard deviation of 3.1; high school student mean aspirations were 16.6 with a standard deviation of 3.2; t (372) = 2.10, p = .036.

Table 4. Unstandardized Coefficients from OLS Regressions Predicting Rural Youth Educational Aspirations

	Model 1		Model 2		Model 3	
	B	*SE*	*B*	*SE*	*B*	*SE*
Perceptions						
School	0.382	0.202	0.957**	0.339	0.121***	0.029
Community	−0.418*	0.182	−0.866**	0.298	−0.100***	0.026
Economy			−0.116	0.346		
Engagement						
Engagement hours	0.254***	0.056	0.249**	0.090	0.038***	0.008
Academic grades	1.280***	0.238	1.450***	0.396	0.187***	0.034
Controls						
Income	0.442	0.323	0.645	0.520	0.050	0.046
Gender	1.055***	0.197	1.130***	0.314	0.136***	0.028
Race-ethnicity	0.225	0.219	0.035	0.361	−0.009	0.031
N	949		383		949	

Source: Authors' tabulations.
Notes: All variables are positive; gender and race-ethnicity are binary. Models 1 and 2 use a continuous measure of educational aspiration. Model 1 is all students. Model 2 is high school students only. Model 3 uses all students and a dichotomous dependent variable (1 = want to achieve at least a bachelor's degree; 0 = want to achieve a high school or community or technical college degree).
*$p < .05$, **$p < .01$, ***$p < .001$

Table 5. Rural Youth, Stated Barriers to School and Community Activities

	All	%	Maine	%	Oregon	%
I'm not interested.	431	22.4	144	24.9	286	21.2
I don't have time.	364	18.9	101	17.5	262	19.5
It's hard to get transportation.	197	10.2	55	9.5	141	10.5
Few or no activities are available.	182	9.5	45	7.8	137	10.2
Activities cost too much money.	164	8.5	34	5.9	129	9.6
My parents or guardians won't let me participate.	60	3.1	17	2.9	42	3.1

Source: Authors' tabulations.
Note: Percentage of total respondents.

Barriers to Rural Youth Educational Aspirations

Despite slight variability in the order, youth in Maine and Oregon indicated the same top five perceived barriers to achieving their educational aspirations: cost, not having good enough grades, not being smart enough, needing to work after high school, and having to move away (table 6). Having to take care of family members, not wanting to work hard enough, health problems, and needing to work on a farm or in the family business were ranked moderately. The perceived barriers with fewest responses were parents not being sure about students going to school and parents not wanting them to go far in school.

Table 6. Rural Youth, Stated Barriers to Achieving Educational Aspirations

	All	%	Maine	%	Oregon	%
It costs too much.	820	42.6	206	35.6	614	45.6
I don't have good enough grades.	435	22.6	97	16.8	338	25.1
I'm not smart enough.	398	20.7	114	19.7	284	21.1
I need to work after high school.	395	20.5	97	16.8	297	22.1
I would have to move away to go to school.	249	12.9	71	12.3	178	13.2
I have to take care of family members.	151	7.8	35	6.1	115	8.5
I don't want to work hard enough.	150	7.8	39	6.7	110	8.2
I have health problems.	85	4.4	22	3.8	63	4.7
I need to work on the farm/family business.	70	3.6	23	4.0	47	3.5
My parents aren't sure about me going to school.	36	1.9	6	1.0	29	2.2
My parents don't want me to go far in school.	36	1.9	10	1.7	26	1.9

Source: Authors' tabulations.
Note: Percentage of total respondents.

DISCUSSION

Our findings indicate rural youth in our sample plan to pursue postsecondary education at high rates (83 percent), consistent with previous studies. For example, Bajema, Miller, and Williams (2002) report aspiration rates for some type of postsecondary education for 96 percent of students, and Schaefer and Meece (2009) find that 90 percent of rural twelfth graders planned to continue their education. In a similar context to the Maine study area, Eleanor Jaffee and her colleagues (2019) also report very high educational aspirations.

In assessing variation of rural youth aspirations, we find significant differences when comparing students in middle and high school, Maine and Oregon, and middle and high school within Oregon. Oregon students expressed higher educational aspirational goals than Maine students for several reasons. The presence of a local educational opportunity in the form of the community college in Coos County may make higher education appear more attainable to Oregon students, given that they would not have to leave their home county. In addition, when asked where they wanted to live in thirty years, a higher proportion of Oregon students stated a desire to live in urban or nonlocal communities (Crandall et al. 2020a) than Maine students (Crandall et al. 2020b). Given that most rural students must leave their local community to pursue higher education, these two findings are in alignment; we are, however, unable to discern cause and effect (that is, whether students in Oregon are more likely to want to live in an urban area, and thus view higher education more attainable, or whether their higher aspirations lead them to be more open to a nonrural residence). The higher willingness of Oregon students to consider a nonrural future residence may also be evidence of stronger rural-urban connections in Oregon than Maine, a possibility that our survey did not allow us to explore.

In the full model, school perceptions—the scale variable combined from multiple belief statements about school—did not have a significant relationship with educational aspirations. When restricted to high school respondents or when using a dichotomous dependent variable, school perceptions were significantly and positively related to higher educational aspirations: students who felt more positively about their current school had higher aspirations for future education. This second result is in line with previous work examining the role of school climate positively influencing development of youth aspirations (Plucker 1998), although it ran counter to work by Schaefer and Meece (2009) finding that school climate was not a significant predictor of rural youth educational expectation. However, Schaefer and Meece (2009) used measures reported by school administrators and noted the importance of so-

liciting perceptions of classroom and school environments from students, which our study did. This solicitation is particularly important for understanding the role of the school climate in shaping rural youth aspirations, given that students are the best judges of the degree to which relational trust, a key foundation for positive school climate, is present in their schools between students and teachers (Bryk and Schneider 2002; Thapa et al. 2013). We suggest that future work exploring these relationships focus on breaking down the complexities of school climate dynamics to understand the relative contribution of teacher-administrator trust and workplace satisfaction as a factor contributing to student experiences (Thapa et al. 2013). Understanding the dynamics of these complexities will better assist school and teacher leaders to target their efforts to align their practices to proactively shape youth aspirations.

Students who have positive views of their community were more likely to have lower educational aspirations, similar results to a study concluding community attachment decreases educational aspirations among rural youth (Howley 2006). This finding highlights the complicated relationship between aspiration formation and community perception for rural students. In a context where pursuing higher educational goals invariably means moving away, the short-term emotional costs of relocating versus the long-term benefit of higher education may simply be too much, factors that are articulated through other research on rural youth aspirations (Parsons 2022, this issue). Although urban youth may be similarly attached to place and family, they are more likely to be able to satisfy all their aspirations, whether educational or social, near their home community. In other analyses using this survey data, we explore the role of outdoor place attachment as an influence in desired future residence between rural and nonrural location (Bernsen et al. in press). In those models, stronger outdoor place attachment was related to a higher likelihood of desired future rural residence, and the relationship between educational aspirations and future rural residence was negative. It is clear that, whether expressed as outdoor place attachment or community perceptions, rural youth's connections to place affect their educational aspirations and desired future residence. Because pursuing postsecondary education frequently requires leaving one's community, these connections and desires are tangled and operating at multiple levels; family and place connections may supersede educational aspirations for some students.

Contrary to our expectations, students who perceived their local economy as staying the same or improving did not have statistically significant differences in educational aspirations than those who perceive the economy as getting worse. Although economic perceptions have been shown to be an influence in other studies, it is not clear what the cause is in our findings. It could be that student expectations are not as influenced by economic trajectory in places with long-standing decline. It could also be that including community and school perceptions captures the dominant influences on educational aspirations. As other research highlights, youth expectations of staying or leaving one's community may be of particular consequence when facing decisions in times of economic uncertainty (Niccolai, Damaske, and Park 2022); the influence of growing up in long-term uncertainty may be less obvious.

The relationship of gender to aspirations is particularly interesting in the rural context. Gender was significant and positively related to educational aspirations in all our models, consistent with other research showing that girls have higher educational aspirations than boys. However, qualitative research looking at the ways in which adults navigate job loss show more tendency for women than men to downshift their expectations, focusing on remaining or returning to family rather than pursuing careers (Niccolai, Damaske, and Park 2022). These downshifts may also occur in response to crisis, such as the COVID-19 pandemic. In addition, their respondents reported higher pressure from parents for girls to pursue postsecondary education, whereas boys had "more choice" between school and work (Niccolai, Damaske, and Park 2022). More research is needed to see whether girls are more likely to report higher educational aspirations in part because of family pressure and are more will-

ing to downgrade those ambitions when faced with tough choices.

Given that rural economies in transition are also frequently faced with gendered shifts in employment (manufacturing has long been dominated by men; services typically are dominated by women), a gendered expectation may also be playing out with boys' lower educational aspirations. Research looking at the choices of rural men for work and residence note that rural men frequently sought out training that reinforced their identity as rural, working-class individuals, and put more stock into job skills and experience than paper credentials (Corbett 2020; Sherman and Sage 2011; Francis 2022). In eras and locations where manufacturing jobs were plentiful, these were logical strategies for rural men.

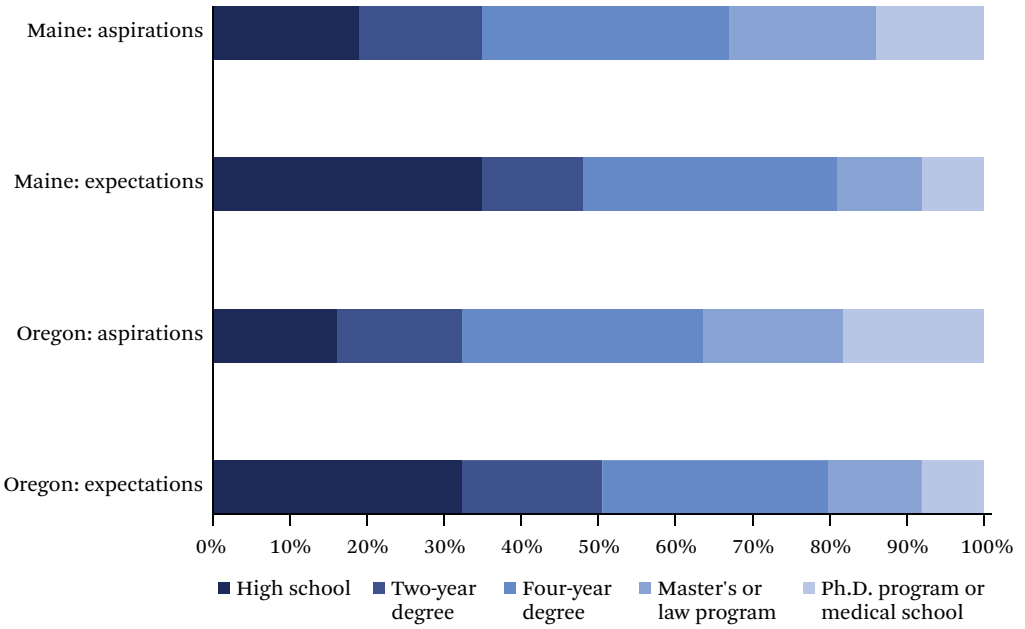
Engagement in school and community activities and grades were consistently and positively related to higher educational aspirations in our models, findings in keeping with other research (Petrin, Schafft, and Meece 2014). However, students noted barriers around transportation and cost, two things likely to be more of an issue in more remote, rural areas with lower incomes. Jennifer Sherman and Kai Schafft (2022, this issue) find just such inequalities at play in their study of educational opportunities in an amenity-rich rural area, where more affluent newcomers were better able to take advantage of extracurricular activities than lower-income families. Although some schools are able to counter the effects of these barriers with late buses and expanded van licenses for school staff, many small, rural districts with limited budgets are unable to afford to take on additional transportation costs of this kind. Transportation is a perennial issue for rural residents, whether related to access to job opportunities or enrichment ones.

Educational aspiration surveys tell us the hopes of youth at one moment in time, but clearly not all these hopes will be realized. We also asked students how far in school they thought they would go, as a measure of educational expectations (figure 2). For both states, a higher proportion of youth expected to achieve lower levels of education than they aspired to. For example, although 67 percent of our respondents aspired to complete at least a bachelor's degree, only 42 percent of Maine students and 49 percent of Oregon students expected to complete at least that degree. The gap between aspirations and expectations, which was consistent across both regions, highlights two important factors. One, youth are realistic about the likelihood of actually obtaining their goals. This is reinforced in the barriers we tabulated (table 6). Two, even the lowered expectations of achievement may be further derailed by unforeseen life-course events, such as those detailed in qualitative work in this volume. This second impact is reflected in actual educational attainment rates. American Community Survey 5-Year Estimates for the percent of adults over twenty-five with at least a bachelor's degree were 17.8 percent for Coos County and 18.4 percent for Piscataquis County in 2019 (Census Bureau 2021). Even accounting for increases in postsecondary attainment and residential sorting over the next decade, it is unlikely that these youth expectations will be met.

Surprisingly, few students indicated that parents not wanting them to pursue postsecondary education was a significant barrier. This is contrary to both our stakeholder expectations and other research documenting the reluctance of parents to have youth relocate (Parsons 2022, this issue; Tieken 2016). Looming larger in students' minds is the issue of cost related to higher education. This is a realistic barrier for most of these youth. Our own experiences and those expressed by others can attest to the difficulties in navigating admissions processes and even the Free Application for Federal Student Aid, or FAFSA (Parsons 2022, this issue), difficulties that are compounded when parents have no experience with institutions of higher education themselves. In these cases, seeing community colleges as a stepping-stone may offer a lower bar for rural youth to get over as an initial hurdle (Wright 2012). They are more likely to be in rural areas, require less admissions criteria and preparation, and are cheaper.

Students also reported "not being smart enough" as a barrier to achieving their educational aspirations. This is likely a combination of multiple forces at play, including but not limited to a lack of college role models, imposter

Figure 2. Educational Aspirations and Expectations



Source: Authors' tabulations.

Notes: Shades of gray indicate the proportion of respondents who want and expect to have their highest schooling be (in order from darkest to lightest): high school degree; two-year degree from a community or technical college; four-year degree from a college or university; a graduate, master's, or law degree; and a Ph.D. or medical degree.

syndrome, a lack of understanding of the rigors of college, and even internalized beliefs about rural deficit. Mentors and role models can both present a living example of attainment and help with navigating unknown systems, institutions, and norms. Schools, and even youth-development-focused intermediary organizations, are well positioned to combat this specific challenge by connecting students with mentors, either in person or online (Radcliffe and Bos 2011). Natural resource–focused educational opportunities and internships may have a special dual role to play in forest-dependent places as a way to connect youth to both the outdoors and provide mentors or role models.

Although our study areas are emblematic of forest-dependent communities that have not transitioned to amenity economies, both are dominated by forest and may have potential to capitalize on that asset in the future. Each county has natural resources that are a draw for tourism: several coastal state parks in the case of Coos County and Moosehead Lake in the case of Piscataquis County. Unlike the communities that Sherman and Schafft (2022) document in this issue experiencing rural gentrification, the remote location relative to urban centers, interstate freeways, and airports of our study areas may limit that potential. This provides an opportunity for these manufacturing-centric places to consider a slower or more intentional growth trajectory, perhaps one that can mitigate some of the inequalities that may stem from higher amenity growth.

Our research incorporates many of the known factors that influence youth education aspirations: schools, communities, engagement, grades, income, and gender. However, it is a snapshot in time of youth-stated aspirations and expectations. We do not know exactly how far these individuals will go, nor which of the perceived barriers will turn out to be limiting factors—or what new barriers may emerge for them. We do not know whether these counties will continue to be marked by slow growth or decline, or might be able to take advantage

of amenity-driven rural development. In addition, our reliance on youth self-reported family income may mask a significant difference in likelihood of college attendance by class. Although we asked about general educational aspirations, more qualitative research could better explore exactly how far rural youth want to go, both in terms of distance from home community and years of school. Would some youth be better served by deeper connections to employment opportunities locally rather than being pushed to attain a specific degree, for example? Our results build evidence for the processes and factors that differentially impact rural youth; connecting rural youth aspirations as they form them to adult outcomes over time remains a rich area of potential research to inform both educational policy and rural community development strategy.

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