



The Economic Benefits of Academic and Career Preparation

Introduction

In an increasingly complex and specialized global economy, education and training beyond high school are crucial to the ability of high school graduates to earn a self-sufficient living and to support a family. Without such education and training, high school graduates are more likely than ever before to see the options for their future narrow as the number of good jobs available to people with only a high school diploma dwindles.

In order to succeed in college, students must graduate from high school ready for the demands of postsecondary education. ACT research (ACT, 2006, 2007) highlights the importance to all high school students of taking a rigorous core preparatory curriculum regardless of whether their intent is to enter a workforce training program or a four-year college or university after graduation. In addition, ACT believes that students should start career planning as early as middle school, by learning about their interests and their academic strengths and weaknesses as they begin to consider postsecondary and career options (ACT, 2005).

How can we tell whether all of this planning and preparation ultimately matters? Long-term change in salary is a strong indicator of career success and economic well-being. A recent study (Neumann, Olitsky, & Robbins, 2007) examined whether the long-term earnings of first-year college students can be predicted by 1) their academic preparation in high school, as measured by ACT Composite score; and 2) the degree to which their career interests fit their planned choice of career.

Economists have previously studied predictors of salary attainment (e.g., Mincer, 1974), focusing on constructs including educational level, ability, and occupational choice (Blackburn & Neumark, 1992; Ehrenberg, 2004). Research such as the National Education Longitudinal Study has also shown an association between salary attainment and measures of general intelligence regardless of education level. And Tracey and Robbins (2006) demonstrated a relationship between career interest and measures of college outcomes, such as cumulative grade point average, retention, and graduation status. But to our knowledge, researchers have not until now examined academic preparation and career-interest fit as predictors of salary attainment.

The Study

We surveyed alumni from more than 300 colleges and universities who had taken the ACT[®] test in high school and earned college degrees. We asked the

survey participants about their college experience, their current work, and their current salary. The data obtained from the surveys was then linked to data on participants' ACT Composite scores, demographic characteristics, high school accomplishments, career interests, and educational and career aspirations. (This information had been collected in high school at the time the participants took the ACT.)

Findings

1. As ACT Composite score increased, average salary also increased.
2. As the amount of agreement between participants' stated career interests and their stated career aspirations increased, average salary also increased.
3. These relationships held for both male and female participants, regardless of college major or ultimate educational attainment.

Conclusion

The positive relationship between ACT Composite score and earnings, and that between career-interest fit and earnings, speak to the importance of academic achievement and early career planning in the future economic well-being of our workforce. Not only do college readiness and early career planning directly affect success in postsecondary education but, just as important, they predict long-term salary attainment, regardless of gender, college major, or ultimate educational attainment.

The results of this study reinforce the *economic* imperative for all high school students to become ready for college and a career. We already know that students who are ready for college are more likely to enroll in college, less likely to need remedial coursework during their first year of college, more likely to succeed in their college courses, and more likely to earn a college degree (ACT, in press). Now, we also know that students who are ready for college are also more likely to earn higher long-term salaries after college graduation.

In addition, career planning is important for all. Career interests and tentative career plans begin to form as early as sixth grade, gradually developing and taking shape over the middle school and high school years. Age-appropriate career assessment, exploration, and planning activities encourage students to consider, and focus on, personally relevant career options. Educators, counselors, and parents can have a positive influence on the educational and career aspirations of students by following a few basic guidelines, outlined below.

In middle school:

- Begin talking to students about their academic and career interests. Help students begin to identify broad career fields consistent with their interests.
- Help students begin to understand the connections between academic coursework, college, and future career.

In high school:

- Assess career interests, spend time reviewing the assessment results, and help students make sense of the results in light of current self-knowledge.
- Show students how to use career-relevant information (e.g., interests, abilities) to engage in focused career exploration.
- Help students learn how to use sources of college and career information, e.g., the ACT DISCOVER[®] program, the ACT student Web site (www.actstudent.org), information interviews.
- Help students identify school coursework and postsecondary educational plans that will prepare them for their career goals.
- Periodically assess students' academic strengths and weaknesses and evaluate in light of developing educational plans and goals.

In college:

- Encourage undecided students to complete a career-development course early in college.
- To prepare for workforce realities in a changing economy, encourage students to become aware of the variety of occupations they can enter with a degree in their major.
- Encourage career-relevant activities (e.g., internships) that enhance the academic experience.

Greater agreement among career interests, career aspirations, and career choice is associated with higher long-term career earnings. When students' career interests are identified early, there is a greater chance that they can inform students' career aspirations and influence their ultimate choice of career.

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