



## The 9th grade shock and the high school dropout crisis<sup>☆</sup>

Nikolas Pharris-Ciurej<sup>a,\*</sup>, Charles Hirschman<sup>a,\*</sup>, Joseph Willhoft<sup>b</sup>

<sup>a</sup> Department of Sociology and Center for Studies in Demography and Ecology, University of Washington, United States

<sup>b</sup> Office of the Superintendent of Public Instruction, State of Washington, United States

### ARTICLE INFO

#### Article history:

Received 13 June 2011

Revised 4 November 2011

Accepted 21 November 2011

Available online 6 December 2011

#### Keywords:

High school completion process

Life course

High school dropouts

Educational inequality

Academic performance

9th Grade shock

### ABSTRACT

Retrospective questions on educational attainment in national surveys and censuses tend to over-estimate high school graduation rates by 15–20% points relative to administrative records. Administrative data on educational enrollment are, however, only available at the aggregate level (state, school district, and school levels) and the recording of inter-school transfers are generally incomplete. With access to linked individual-level administrative records from a very large “West Coast metropolitan school district” we track patterns of high school attrition and on-time high school graduation of individual students. Even with adjustments for the omission of out-of-district transfers (estimates of omission are presented), the results of this study show that failure in high school, as indexed by retention and attrition, are almost as common as on-time high school graduation. In addition to the usual risk factors of disadvantaged background, we find that the “9th grade shock”—an unpredicted decline in academic performance upon entering high school—is a key mechanism behind the continuing crisis of high school attrition.

© 2011 Elsevier Inc. All rights reserved.

### 1. Introduction

The near universality of high school graduation is considered one of the major achievements of the American education system. Social indicators, based on survey and census data, show that high school completion has risen from about 50% of young adults in mid-20th century America to almost 90% among recent cohorts (Ingels et al., 2002, p. 14; Mare, 1995, p. 162; Stoops, 2004, p. 2). Thus, it came as a surprise several years ago when studies reported that only 65–70% of high school students actually earned a high school diploma (Balfanz and Legters, 2004; Orfield, 2004; Swanson, 2004). These findings renewed debates over the high school dropout crisis, “dropout factories,” and policies to reform and restructure American high schools.

Much of the controversy was fueled by statistical measurement—or differences in how to define and measure high school graduation. Until a few years ago, the expert opinion was that retrospective questions from household surveys and censuses on completed schooling—highest level of education—yielded reliable and valid measures of high school graduation. However, more recent studies based on administrative records of enrolled students, report a more dismal picture with the “on-time high school graduation rate” about 15–20% points lower than survey-based estimates (Greene and Winters, 2002; Laird et al., 2006; Seastrom et al., 2007; Hoffman et al., 2005; Warren, 2005; Warren and Halpern-Manners, 2007,

<sup>☆</sup> This research has been supported by grants from the Andrew W. Mellon Foundation and the Bill and Melinda Gates Foundation. We are very grateful for the very detailed comments in earlier versions of this paper by Mark Long, Stewart Tonay, Gunnar Almgren, Kurt J. Bauman, Sonalde Desai, Jerald Herting, Robert A. Kominski, Robin Munson, and John Robert Warren. We also thank Jerald Herting and Lowell Hargens for their statistical advice and Patty Glynn for programming support. The reviewers for this journal made a number of very helpful suggestions that have been incorporated into the analysis reported here.

\* Corresponding authors.

E-mail addresses: [nickpc@uw.edu](mailto:nickpc@uw.edu) (N. Pharris-Ciurej), [charles@uw.edu](mailto:charles@uw.edu) (C. Hirschman).

2009). There are several reasons for the discrepancy between administrative and survey estimates of high school graduation, but the most important is the conflation of the receipt of a high school diploma and a high school equivalency certification (e.g. GED). Although about one-half of high school dropouts eventually receive some sort of alternative certificate of high school completion, a “real” high school diploma is worth considerable more in the labor market (Cameron and Heckman, 1993; Heckman and LaFontaine, 2006).

Not only do surveys and administrative records differ in their estimates of the prevalence of the high school graduation, but also their explanations of why students do not complete high school. Survey-based research emphasizes how individual level “risk factors” such as social class of origin, race/ethnicity, and gender influence educational opportunities and achievements (Featherman and Hauser, 1976; Hauser, 2004). Administrative data, based on school records, hold the potential to relate educational outcomes with the social organization of schooling and academic performance—factors that are difficult, if not impossible, to measure in standard household surveys of individuals and families. However, many sources of administrative data, such as the National Center for Educational Statistics’ (NCES) Common Core of Data (CCD) are typically published (or released) for aggregate units, such as schools, which do not allow for the analysis of the joint and interdependent effects of institutional and student characteristics on schooling outcomes.

In this study, we illustrate the potential of micro-level analysis of linked administrative records to investigate the determinants of high school graduation as well as the cumulative processes of promotion, retention, and attrition of students for 6 years after entry into 9th grade. Our analysis is based on records of nearly 9000 high school students in a large West Coast metropolitan school district from 1994 to 2005. These data contain a wealth of individual level risk factors in addition to measures of academic performance and placement. With the universe of all students in the school system, we are able to track each student from the time they enter the school system until they leave the system or graduate. The results reported here confirm and expand upon those reported from similar studies in Chicago (Allensworth and Easton, 2005), Philadelphia (Balfanz et al., 2007) and other school districts (Gleason and Dynarski, 2002). Moreover, the findings presented here—particularly on the “9th grade shock” (a dramatic drop in academic performance upon entering high school)—provide new insights into the reasons for the persisting crisis of high school attrition.

Because of the contested and often confusing literature on attrition and graduation in American high schools, we begin with an overview of the conceptual and measurement problems of research on high school dropout and graduation. Then we turn to the analysis with two objectives in mind. The first is to offer a detailed description of the widespread patterns of failure in high school with a life-table model of the major pathways of progression, retention, and attrition. Although it is possible for high school students to recover from failure, in fact, very few actually do.

The second objective is to estimate a model of on-time high school graduation that highlights the role of early academic performance in high school as a critical mediating variable between social background and high school graduation. We find that many students encounter failure (not predicted by middle school academic performance) during their first term in high school. Students from disadvantaged backgrounds are particularly susceptible to the “ninth grade shock,” but low grades in the first year of high school are far more pervasive and consequential than what would be predicted from background variables alone. In the concluding section of the paper, we review the range of possible explanations for why so many students stumble upon entering high school.

## 2. Measuring high school dropouts and completion

Until a few years ago, there was a remarkable consensus on the success of American high school graduation rates. Every national study based on household survey and census data shows an upward trend in high school completion over the course of the 20th century (Duncan, 1968, p. 655, Fischer and Hout, 2006, p. 13, Fox et al., 2005, p. 48, Hauser, 1997, p. 161, Mare, 1995, p. 162, Mare and Winship, 1988, p. 182). The wording or format of survey questions on educational attainment can have modest effects on estimates of high school graduation rates, but the overall story is consistent across varied data sources (Hauser, 1997, pp. 162–167, Mare, 1995; Scanniello, 2007). The general picture is illustrated by the top line in Fig. 1 (from a Census Bureau report) which shows that the proportion of successive cohorts (measured at age 25–29) graduating from high school rose steadily from around 50% to about 85% or 90% before leveling off. Estimates of the high school dropout rate based on school enrollment (and non-enrollment) of adolescents and young adults from household surveys are roughly comparable to those based on retrospective reports of completed educational attainment (Kominiski, 1990). Since the small number of high school dropouts could well be explained by idiosyncratic characteristics of individuals, the attention of many educational researchers shifted from the historical focus on high school completion to the problems of the transition to college and college completion (e.g. Charles et al., 2009; Kirst and Venezia, 2004; Massey et al., 2003).

This consensus, however, was at odds with the experiences in many school districts where the dropout problem is clearly evident. This counter view is illustrated by the high school enrollment patterns in the West Coast metropolitan school district that is the focus of this study. Fig. 2, based on enrollment data, shows that there are typically 3000 students in the 9th grade freshman class, but only half of that number—less than 1500 students—is enrolled in the senior class. These data are cross-sectional, but are averaged over 7 years (1996–2002) to adjust for annual fluctuations in enrollment. Admittedly, there is a 9th grade “bulge,” relative to 8th grade enrollment, because of in-transfers and retentions, but the evidence of massive numbers of dropouts would be only slightly reduced if seniors are compared to 8th graders in the school system. Although Fig. 2 is based on only one school district, which has an above average high school dropout rate (Bylmsa and Ireland, 2005),

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات