

DOCUMENT REVIEWED: “The High Cost of High School Dropouts in Ohio”  
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### Summary of Review

A new report published by the Buckeye Institute for Public Policy Solutions is a minor variant on six similar reports published by the Friedman Foundation over the past three years. The new report repeats some of the errors in the previous reports, and it follows a parallel structure, arguing that the costs of dropping out are dramatic for the state of Ohio, and that last-chance charter schools for dropouts can increase graduation and address the dropout problem. However, the report’s claims about graduates for the 23 illustrative schools are inconsistent with the data reported by the state of Ohio for the year chosen, resulting in a dramatic overstatement of the graduation rates at the charters. The report also largely ignores the existing research literature on the personal and social benefits of educational attainment, the achievements of charter schools, and the factors associated with either completing or dropping out of high school. Further, the report fails to compare the alleged benefits of last-chance charter schools with plausible alternatives. State policymakers interested in increasing graduation would be better served by seeking out the available, well-researched scholarship on the topic.

## Review

### I. INTRODUCTION

For almost half a century, school reform advocates in the U.S. have pointed to high school dropout rates as a serious problem needing to be addressed. These advocates often then propose their own proposals to address the problem and reduce the individual and social costs of dropping out.<sup>1</sup> The list of reforms proposed as dropout prevention, remediation, or amelioration include remedial education, vocational education, work-study programs, individualized counseling or social work, day care for students with children, pre-school access, early-childhood and elementary-school interventions, middle-school academic and behavioral interventions, high school academic and behavioral interventions, expanding the curriculum beyond traditional academics, confirming the central place of traditional academic curricula, retaining more students in a grade, reducing grade retention, requiring students pass exams to earn a diploma, eliminating graduation exit exams, and quantifying and setting targets for graduation.

In *The High Cost of High School Dropouts in Ohio*<sup>2</sup>, a report sponsored by the Buckeye Institute for Public Policy Solutions, author Matthew Carr has expanded the list of proposed solutions to now include public funding for students to attend last-chance charter schools. Carr's argument is that spending public funding for these charter schools will result in a substantial increase in high school graduation.

The first half of the report presents an analysis that largely duplicates reports that the Milton and Rose D. Friedman Foundation published or co-published for six different states: Missouri, Indiana, Texas, South

Carolina, North Carolina, and Maryland.<sup>3</sup> The beginning of the new Buckeye report parallels the structure of the Friedman Foundation reports, with the details of the arguments changed in a formulaic manner. It offers crude estimates of the social costs of dropping out for that state, and then uses a limited set of data about charter schools (most of which are run by a controversial for-profit education management company: White Hat Management) to estimate increases in graduation and attendant savings for the state if more public-school funding is diverted to these for-profit charter schools.

As in the six Friedman publications, the Buckeye report uses the existing literature on dropping out and school competition in a superficial way. In describing the urgency of the issue, it uses cross-sectional comparisons of earnings and the comparative social burdens of high school graduates and dropouts. That is, it looks at a slice of the population, comparing the earnings of those with and without diplomas. While such cross-sectional analyses are commonly used in the public debate over dropping out, they are inaccurate for a variety of reasons discussed in some detail later in this review. Further, while there are acknowledged social benefits to increasing educational attainment, the size of that benefit is a matter of vigorous debate.

This report is unique in that it sees a set of last-chance ("dropout recovery") charter schools as the best solution to the problem. In the parallel reports published by the Friedman Foundation, vouchers are the panacea; in this report, the solution is found in White Hat's charter schools.

Surprisingly and as described later in this review, the report's claims about the number

of graduates coming from the chosen set of charter schools (using data from 2004-05) fails to match the official data reported for that year by the state of Ohio—in each case exaggerating the total graduate count.

Finally, the report fails to put the recommendation for last-chance charter schools in the context of possible alternatives. For instance, if state policymakers are considering school choice, the potential effects of charter schools operated by non-profit organizations could be compared with the potential effects of choice in local public systems. Without a comparative analysis of alternative proposals to increase high school graduation, the reports are of little practical use to policymakers who have no means by which to gauge the value of these charters versus other alternatives.

## **II. FINDINGS AND CONCLUSIONS OF THE REPORT**

The report makes the following argument:

- Ohio’s high school graduation rate is too low.
- There are social costs associated with these low levels of high school graduation, including lower tax revenues and higher costs of medical care and incarceration.
- Enrollment of high-risk teenagers in last-chance charter schools can increase the graduation rate.

The conclusion of the report is a recommendation that the state expand investment in last-chance charter schools to increase the graduation rate and save resources.

## **III. RATIONALES SUPPORTING FINDINGS AND CONCLUSIONS OF THE REPORT**

There are three main factual claims in the report, concerning (a) the extent of dropping

out, (b) the social costs of lower attainment, and (c) the benefits of “dropout recovery” programs in specialized charter schools.

### **Dropouts**

The first figure compares the report’s estimates of the state’s population aged 25 and over—primarily contrasting those with no high school diploma to those with a high school diploma, with some college experience, and with various levels of higher education degree recipients.

### **Illustrating Costs**

The next section of the Buckeye Institute report attempts to quantify the costs of lower attainment. The report contrasts cross-sectional data on the unemployment rate, income, use of Medicaid, and incarceration rates for three groups: dropouts, high school graduates, and residents with some higher education. For example, the report asserts that high school graduates earn approximately \$6,000 more per year and have an unemployment rate at least 6.8% higher than any other group of state residents.

The report then aggregates the individual statistics to assert that the total cost of dropping out is the per capita difference in costs between dropouts and high school graduates (private income, lost taxes, increased burdens through Medicaid or prison) multiplied by the total number of dropouts in the state. The report estimates the total annual costs of dropping out to include \$6 billion in lost wages, over \$250 million in lost tax revenue, \$415 million in additional Medicaid expenses, and \$10 million annually in extra costs of incarceration for the state of Ohio.

### **Justifying Charters**

The last section of the report attempts to es-

estimate the benefits of enrollment in 23 specialized “dropout recovery” charter schools, 18 of which are “Life Skills Centers” operated by White Hat Management. According to the data presented in the report, the schools have a wide range of success, with the probability of graduating from these charter schools lying roughly between 12% and 81%. But one should be skeptical of the data: the graduation counts presented in the report fail to match graduation counts available from the Ohio Department of Education, and there is no description of any independent data collection activities conducted for purposes of the report itself.

#### **IV. THE REPORT’S USE OF RESEARCH LITERATURE**

The claims in each report implicate four different areas of research literature: the measurement of high school graduation, the private and social benefits of educational attainment, the relative success of charter schools, and the literature on high school graduation and dropping out. The report makes reasonable if slim use of the literature in the first area: measuring high school graduation. But the report fails to acknowledge the important questions or findings of the existing literature in the other three areas: charter schools, the factors shaping educational attainment, and the economic and other benefits of educational attainment.

##### **Measuring Graduation**

There is a growing literature on the problems of measuring graduation, and the Buckeye Institute report does cite a small part of the relevant literature.<sup>4</sup> Researchers and other observers generally agree that states have chosen a variety of measures that artificially inflate graduation statistics. These approaches include the inflation of diploma counts by including GEDs, the use

of quasi-cohort measures that fail to adjust for migration of students among schools, and the use of administrative measures of dropping out even though this approach has historically resulted in undercounts.

##### **The Costs of Dropping Out**

There is extensive, published debate among economists about the benefits of educational attainment as well as the private and social costs of dropping out.<sup>5</sup> A plurality of articles over several decades uses cross-sectional comparisons of income among people with different educational credentials to estimate the private benefits of attainment. These analyses, while allowing for only limited conclusions to be drawn, are more sophisticated than the simple comparisons presented in the Buckeye Institute report. Moreover, economists recognize several complicating factors in estimating the costs of dropping out.

The largest point of controversy is over the meaning of a diploma: is it an indirect measure of skills and knowledge acquired through education (an increase in *human capital*), or is a diploma a *credential* that is unrelated to alleged changes in human capital? The two variations of the dissenting position emphasize alternative uses of a credential. In the first version, education merely confirms intrinsic traits of people who gained the higher degree, and so a credential signals these underlying traits (the human capital) more than it reflects anything learned in formal schooling. In the other version, education replicates preexisting social inequalities, and so a credential assists the labor market in justifying a sorting process that would happen anyway. These two versions have different implications for the economic consequences of dropping out, and disentangling the human-capital from the credential functions of a diploma has presented a theoretical and methodological challenge to economists.

Most economists who find a human-capital effect acknowledge at least a partial credential effect. To put it bluntly, if we could wave a magic wand so that everyone earned a high school diploma, the fact of universal graduation would not guarantee higher-paying jobs to all of the new graduates.

A lesser point of controversy is a common confusion between the private and social benefits of educational attainment. On the one hand, the estimate of private benefits of education can tell us about the personal motivation to continue in school (the expected return when compared to the opportunity costs of longer schooling), but that personal motivation is in an individual or family context. Because of a limited supply of well-paying jobs, when many people try to improve their position in a competitive labor market, that competitive motivation does not translate in a simple way into greater productivity for the entire economy, and it may decrease individual private benefits.

On the other hand, the conflation of private with social benefits may mask benefits that only appear when looking at a population. When there is a critical mass of well-educated workers, companies may be more inclined to move to that location, and the critical mass may create a broader synergy that would be invisible when looking at a simple aggregation of private benefits.

Finally, there are continuing debates over the best methods to estimate income effects of even simple private benefits, with some acknowledgment that private benefits depend on macroeconomic conditions. For example, since there is a time lag between today's students and their later work life, a cross-section of today's students and today's workers may underestimate future benefits for students when wages are generally rising and may overestimate benefits when wages are falling.<sup>6</sup>

None of these issues are addressed in the oversimplified presentation in the new report.

### **Charter Schools**

The Buckeye Institute report does not acknowledge or consider any of the existing literature on charter schools. And there is a large body of useful research that could be considered.<sup>7</sup>

### **Graduation and Dropping Out**

Finally, the report makes no mention of the extensive literature exploring graduation, dropping out, and the factors that shape educational attainment.<sup>8</sup> Because of this omission, each report treats the educational process as a black box, as if the reasons why students drop out of school are largely irrelevant to policymakers—which obscures other program options those policymakers could otherwise consider.

Several of those alternatives deserve greater scrutiny by state policymakers, including preschool education, comprehensive intervention programs in middle and high schools, changes in child labor laws, and modifications of exit-exam requirements in states with mandatory exit exams.<sup>9</sup>

## **IV. REVIEW OF THE REPORT'S METHODS**

Previous sections of this review have discussed weaknesses in the way that the Buckeye Institute report ignored the literature on the benefits of educational attainment, on charter-schools, and on high school graduation, as well as the report's simplistic presentation of the costs of dropping out. Some additional concerns are warranted in terms of the report's lack of documentation for its concrete claims about graduation from the last-chance charter schools.

The report provides two tables purporting to present graduation and cost data for 23 charter schools operating in Ohio in 2004-05. Unfortunately, the data in the graduation table do not match the official Ohio Department of Education graduation counts for 2004-05.<sup>10</sup> The Buckeye report over-reports graduates for those charter schools listed in the report's Table 5 (page 9) that had graduation counts reported by the state of Ohio (data were available for 18 of the 23). For example, for the Life Skills Center of Columbus Southeast, where Ohio says fewer than 10 graduated in 2004-05, the report claims 145. For the Life Skills Center of Dayton, where Ohio says fewer than 10 graduated in 2004-05, the report claims 88 graduates. For Life Skills of Northeast Ohio, the state reported 42 graduates, it claimed 338. Overall, for 18 schools for which Ohio reported a specific number of graduates, the report claimed 1,610 more graduates in 2004-05 than what the state reported. This documented exaggeration represents approximately half of the total graduates that the report claims for the 23 schools.

Nowhere does the report explain the origins of the data in Tables 5 or 6 (page 10), let alone how there could be such a large discrepancy between the graduation counts in Table 5 and the official counts reported by the state.

## **V. REVIEW OF THE VALIDITY OF THE FINDINGS AND CONCLUSIONS**

The one trustworthy conclusion of the report is that there are both private and social costs to dropping out, though the report's facile estimates are likely to be inaccurate.

The report's conclusions about the benefits of last-chance charter programs are not trustworthy, because the data on the 23 last-chance charter schools named in the report are apparently inaccurate, and there is no reason to believe from the report itself that its author inde-

pendently gathered the graduation-count data that are so far from official reports.

In addition, readers of the report should be aware that the recommendation is not placed in the context of all policy options for increasing graduation and reducing the costs of dropping out. Even if the factual claims were trustworthy, the relevant issue for policymakers is to select from the best options for increasing graduation. Even within the realm of school choice, the report failed to acknowledge the potential for specialized programs in local public schools to garner much of the hoped-for benefits of a last-chance charter-school program.

Responsible researchers acknowledge the complexity of dropping out as a phenomenon and the different options that need to be weighed against each other, including preschool programs, reducing class sizes, and community-level intervention in high school.<sup>11</sup>

## **VI. USEFULNESS OF THE REPORT FOR GUIDANCE OF POLICY AND PRACTICE**

Dropping out is generally acknowledged as a serious problem for the students who leave school and for larger society. The broader social costs include economic penalties for lower educational attainment; costs associated with dependency; the potential damage to a democratic society of having a less-educated group of voters and jurors; and the damage to an egalitarian society when diploma rate differences are associated with social class, race, ethnicity, and the presence and nature of disabilities. While the Buckeye Institute report dramatically simplified the costs, they are real.

State policymakers might be tempted to view the report published by the Buckeye Institute as a rational response to such con-

cerns. But the weaknesses described in this review should make clear the problems with relying on this report: the failure to respect the existing research literature in key topics, the mismatch between the report's factual claims about the 23 named charter schools, and the failure to put the proposed recommendation in a context of different options to improve graduation.

State policymakers would be better advised

to consult a report issued in 2008 by the Brookings Institution, entitled *The price we pay: Economic and social consequences of inadequate education*.<sup>12</sup> The book, edited by professors Clive Belfield and Henry Levin, more appropriately handles all of the issues identified in this review. Moreover, the policy choices discussed in the Belfield and Levin anthology provide a more realistic basis for increasing graduation and reducing dropping out.

## Notes & References

<sup>1</sup> One general source for the history of dropping out as a demographic phenomenon and focus of policy debates is the following:

Dorn, S. (1996). *Creating the dropout: An institutional and social history of school failure*. Westport, CT: Praeger.

<sup>2</sup> Carr, M. (2009, February). *The high cost of high school dropouts in Ohio*. Columbus: The Buckeye Institute for Public Policy Solutions. Retrieved March 3, 2009, from [http://www.buckeyeinstitute.org/docs/ohio\\_dropout\\_study.pdf](http://www.buckeyeinstitute.org/docs/ohio_dropout_study.pdf).

<sup>3</sup> The six reports are as follows:

Gottlob, B.J. (2007, October). *The high cost of low graduation rates in North Carolina*. Indianapolis: Milton and Rose D. Friedman Foundation and Parents for Educational Freedom in North Carolina. Retrieved January 2, 2008 <http://www.friedmanfoundation.org/friedman/downloadFile.do?id=256>.

Gottlob, B.J. (2007, June). *The high cost of South Carolina's low graduation*. Indianapolis: Milton and Rose D. Friedman Foundation South Carolina Policy Council. Retrieved January 2, 2008, from <http://www.friedmanfoundation.org/friedman/downloadFile.do?id=250>.

Gottlob, B.J. (2007, February). *The high cost of failing to reform public education in Texas*. Indianapolis: Milton and Rose D. Friedman Foundation, the National Center for Policy Analysis, and the Hispanic Council for Reform and Educational Options. Retrieved January 2, 2008, from <http://www.friedmanfoundation.org/friedman/downloadFile.do?id=107>.

Gottlob, B.J. (2006, October). *The high cost of failing to reform public education in Indiana*. Indianapolis: Milton and Rose D. Friedman Foundation. Retrieved January 2, 2008, from <http://www.friedmanfoundation.org/friedman/downloadFile.do?id=97>.

Gottlob, B.J. (2006, March). *The high cost of failing to reform public education in Missouri*. Indianapolis: Milton and Rose D. Friedman Foundation. Retrieved January 2, 2008, from <http://www.friedmanfoundation.org/friedman/downloadFile.do?id=95>.

Hauke, J. P. (2008, September). *The high cost of Maryland's dropout rate*. Indianapolis: Milton and Rose D. Friedman Foundation and Maryland Public Policy Institute. Retrieved February 22, 2009 from <http://www.friedmanfoundation.org/friedman/research/ShowResearchItem.do?id=10099>.

I authored a review of those reports for the Think Tank Review Project:

Dorn, S. (2008). *Review of "Five State Dropout Reports."* Boulder and Tempe: Education and the Public Interest Center & Education Policy Research Unit. Retrieved February 27, 2009 from <http://epicpolicy.org/thinktank/review-five-state-dropout-reports>.

<sup>4</sup> Some of the important technical discussions *not* cited by the reports include the following:

Seastrom, M., et al. (2006a). *User's guide to computing high school graduation rates. Volume 1. Technical report: Review of current and proposed graduation indicators*. NCES 2006-604. Washington, DC: National Center for Education Statistics.

Seastrom, M., et al. (2006b). *User's guide to computing high school graduation rates. Volume 2. Technical report: Technical evaluation of proxy graduation indicators*. NCES 2006-605. Washington, DC: National Center for Education Statistics.

Warren, J.R. (2005). State-level high school completion rates: Concepts, measures, and trends. *Education Policy Analysis Archives*, 13(51).

Warren, J.R., & Halpern-Manners, A. (2007). Is the glass emptying or filling up? Reconciling divergent trends in high school completion and dropout. *Educational Researcher*, 36(6), 335-343.

<sup>5</sup> A very small portion of the relevant literature includes the following, which form the basis for the discussion in this subsection:



- Acemoglu, D., & Angrist, J. (1999). *How large are the social returns to education? Evidence from compulsory schooling laws*. NBER Working Paper No. 7444. Cambridge, MA: National Bureau of Economic Research.
- Acemoglu, D., & Angrist, J. (2000). How large are human-capital externalities? Evidence from compulsory schooling laws. *NBER Macroeconomics Annual*, 15(1), 9-59.
- Arias, O. (2001). Dynamic rates of return to education in the U.S. *Economics of Education Review*, 20(2), 121-38.
- Bailey, T., & National Assessment of Vocational Education (U.S.). (2004). *The return to a sub-baccalaureate education*. Washington, DC: National Assessment of Vocational Education.
- Barrow, L., & Rouse, C.E. (2005). Does college still pay? *The Economists' Voice*, 2(4), article 3.
- Barrow, L., & Rouse, C.E. (2005). *Do returns to schooling differ by race and ethnicity?* Chicago: Federal Reserve Bank of Chicago.
- Belfield, C., & Levin, H.M., (Eds.). (2007). *The price we pay: Economic and social consequences of inadequate education*. Washington D.C.: Brookings Institution Press.
- Bills, D. (2003). Credentials, signals, and screens: Explaining the relationship between schooling and job assignment. *Review of Educational Research*, 73(4), 441-449.
- Card, D. (2001). Estimating the return to schooling: Progress on some persistent econometric problems. *Econometrica*, 69(5), 1127-1160.
- Goldin, C. (2001). The human-capital century and American leadership: Virtues of the past. *The Journal of Economic History*, 61(2), 263-292.
- Goldin, C., & Katz, L. F. (2008). *The race between technology and education*. Boston: Belknap Press.
- Harmon, C., Oosterbeek, H., & Walker, I. (2003). The returns to education: Microeconomics. *Journal of Economic Surveys*, 17(2), 115-156.
- Sianesi, B., & Van Reenen, J. (2003). The returns to education: Macroeconomics. *Journal of Economic Surveys*, 17(2), 157-200.
- Weiss, A. (1995). Human capital vs. signaling explanations of wages. *The Journal of Economic Perspectives*, 9(4), 133-154.
- <sup>6</sup> See Arias, O. (2001). Dynamic rates of return to education in the U.S. *Economics of Education Review*, 20(2), 121-38.
- <sup>7</sup> Henig, J. R. (2008). *Spin cycle: How research is used in policy debates: the case of charter schools*. New York: Russell Sage Foundation. Henig convincingly argues that charter school performance is more complicated than either the charter-school boosters or opponents of all charter schools would claim. With this as a foundation, we should read claims of charter-school achievements seriously but skeptically and insist on rigorous evidence.
- <sup>8</sup> A small portion of the relevant literature includes the following:
- Alexander, K. (2001). The dropout process in life course perspective: Early risk factors at home and school. *Teachers College Record*, 103(5), 760-822.
- Fine, M. (1986). Why urban adolescents drop into and out of public high school. *Teachers College Record*, 87(3), 393-409.
- Fine, M. (1991). *Framing dropouts: Notes on the politics of an urban public high school*. Albany, NY: State University of New York Press.
- Orfield, G. (Ed.). (2004). *Dropouts in America: Confronting the graduation rate crisis*. Cambridge, MA: Harvard Education Press.
- Rumberger, R.W. (1987). High school dropouts: A review of issues and evidence. *Review of Educational Research*, 57(2), 101-121.

- Rumberger, R.W. (1995). Dropping out of middle school: A multilevel analysis of students and schools. *American Educational Research Journal*, 32(3), 583-625.
- Rumberger, R.W., & Larson, K. . (1998). Student mobility and the increased risk of high school dropout. *American Journal of Education*, 107(1), 1-35.
- Rumberger, R.W., & Thomas, S.L. (2000). The distribution of dropout and turnover rates among urban and suburban high schools. *Sociology of Education*, 73(1), 39-67.
- Warren, J.R., & Edwards, M.R. (2005). High school exit examinations and high school completion: Evidence from the early 1990s. *Educational Evaluation and Policy Analysis*, 27(1), 53-74.
- Warren, J.R., Jenkins, K.N., & Kulick, R.B. (2006). High school exit examinations and state-level completion and GED rates, 1975 through 2002. *Educational Evaluation and Policy Analysis*, 28(2), 131-152.
- <sup>9</sup> Belfield, C., & Levin, H.M., (Eds.). (2007). *The price we pay: Economic and social consequences of inadequate education*. Washington D.C.: Brookings Institution Press.
- <sup>10</sup> Ohio Department of Education. (n.d.). Power User Reports [website]. Retrieved February 26, 2009, from [http://ilrc.ode.state.oh.us/Power\\_Users.asp](http://ilrc.ode.state.oh.us/Power_Users.asp)
- <sup>11</sup> For an example of such comparisons, see
- Belfield, C., & Levin, H.M., (Eds.). (2007). *The price we pay: Economic and social consequences of inadequate education*. Washington D.C.: Brookings Institution Press.
- <sup>12</sup> Belfield, C., & Levin, H.M., (Eds.). (2007). *The price we pay: Economic and social consequences of inadequate education*. Washington D.C.: Brookings Institution Press.

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