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ABSTRACT

How can policy makers and the public judge whether proprietary schools are heroes or villains? A review of six studies on proprietaries and two studies conducted in Minnesota attempted to answer the question. Five of the six studies examined reported that proprietary schools students are more likely to complete a program than public school students. However, proprietary graduates appeared slightly more likely to experience unemployment than public vocational graduates. Mixed research findings seem to indicate that proprietary graduates may earn higher initial wages, but these differences disappear; in some cases, they may end up earning less than community college or vocational school graduates. The Minnesota studies showed that proprietary graduates felt much stronger in cognitive development and leadership ability after their coursework, compared to a cohort of public two-year college students. These results show that proprietary schools cannot be regarded as either heroes or villains. As the number of schools change with shifting demographics and changes in regulatory policy, overall performance will vary. The analysis leads to five conclusions: (1) proprietaries are performing about the same as public institutions; (2) policy makers should fund the creation of more national data sets measuring comprehensive samples; (3) schools should be held accountable for outcome measures; (4) the impact of proprietaries on students' personal development should receive research attention; and (5) research should examine proprietaries in depth. (Two tables provide the following information for the six studies: population, comparison groups, limits, completion, placement and employment, and earnings. A 14-item reference list is included.) (NLA)

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Introduction

The airwaves, newspapers and bus benches of America are filled with proprietary school advertisements contending they are heroes. They claim to provide people with short-term, job specific training that leads directly to related employment. They promise students a sure route to secure employment, at good wages. In addition, some proprietary schools say they help students gain self-confidence, build self esteem and learn to be "professional".

A barrage of recent media stories portrays proprietary schools as villains. In these stories the schools make excessive profits, fail to deliver on their promises, and leave students discouraged and in debt. The stories are filled with compelling anecdotes about students who pinned their hopes for a better life on a proprietary school, only to have them dashed when the school failed to deliver quality training and job placement.

Policy makers, at the state and federal level, have responded to the image of proprietary schools as villains by subjecting them to a wave of increased regulation, often without consulting the objective research that is available on the schools.

What is the truth about proprietary schools? How can policy makers and the public judge whether proprietary schools are heroes or villains? One way is to compare what they promise to what they deliver. Do proprietary schools help students to quickly complete effective training programs that lead to secure jobs at good wages? Are they as effective as public vocational programs? Do they foster students' personal development? Certainly these are questions the educational research profession should be able to answer for policy makers and the public at large.

This paper examines published research on proprietary schools to see to what degree there is a body of research capable of answering these important questions. It then reviews some recent research on proprietary students in Minnesota, and finally it draws conclusions about whether research proves the schools heroes, villains or something in between.

Overview of Available Research

Until very recently, proprietary schools attracted little attention from serious researchers. The first attempts to look at the outcomes of attending a proprietary school were by Belitsky (1969), Wolman (1972), Wilms (1975) and Freeman (1974). While these studies uniformly found significant positive impact for attending proprietary schools, their data represented students who attended proprietary schools before these schools participated in federal student aid programs. In that era the proprietary sector was far smaller and most students paid for training out of their own pockets. It is doubtful that this research would generalize to the large contemporary proprietary sector which is primarily fueled by federal student aid funds.

Rather, in this review I will focus on six studies, published since 1980, which use data on proprietary students who enrolled after the schools became eligible for federal student aid programs as a result of the 1972 Higher Education Amendments. These six studies were selected because they attempt to take a nationally representative sample of proprietary school students and contrast it with some equivalent group of public sector vocational students to compare the outcomes of attending proprietary schools. Table 1 summarizes briefly the data bases used by each study and notes the limits of each. Table 2 summarizes what each study reported in terms of program completion rates, placement and employment data, and earnings.

Limits of the Studies

Before I review the results of these studies, I offer a brief discussion their limits. Four of the studies, Sango-Jordon (1989), Goodwin (1989), Lyke, Gabe, & Aleman (1991) and Grubb (1991a), use either the National Longitudinal Survey of the Class of 1972, or the High School and Beyond data base which tracks the high school class of 1980. While these are valuable data bases which include a wealth of data on a nationally representative population, they have important limits. The primarily one is that they include only a small number of proprietary students. For example the High School and Beyond, data base includes only 419 proprietary school students out of 10,469 subjects (Sango-Jordon, 1989). Once these are broken into subgroups such as completers and non-completers, the numbers become even smaller. This limits the analysis of these data since the number of students who attended different types of schools such as business, trade or cosmetology schools cannot be separated for analysis. Also these data bases track a single high school class, so while this population of proprietary students may represent their high school class, they do not represent all proprietary school students, especially since over half of all proprietary students are older.

The Wilms (1980) study collected its own data by sampling public and proprietary school students in four metropolitan areas. While this data base represents students of all ages, it does not include rural and small town students. It also is limited to six occupational areas.

The Bishop study uses data on employees gathered in a national survey of employers. It was not designed to capture a national sample of students, graduates, or educational institutions.

Table 1
Summary of Proprietary School
Outcome Studies-- Methods

Study	Population and Comparison Groups	Limits
Wilms (1980)	Study Population drawn from 21 Public (including both community college and technical institutes) and 29 proprietary schools in 4 metro areas. Study population 1,576.	Subjects only from urban areas. Follow-up of student enrolled in 1973 in 1975. Limited to 6 occupational areas: accountant, computer programmer, electronic technician, secretary, dental assistant and secretary.
Bishop (1985)	1982 National Employer Survey which collected data on workers background, on-the-job training, earnings and productivity from a national sample of employers.	Measurement of vocational education effects are incidental to measures of on-the-job training and productivity which are the focus of the study. No controls for demographic differences between proprietary graduates and others.
Sango-Jordon (1989)	High School and Beyond 1986 followup of the class of 1980. Compares outcomes with following groups: no post-secondary attendance, other less than four year, or four year institution. Of a total population of 10,469 only 419 attended proprietary schools.	Study population includes only 948 proprietary students. Short-term followup. Sample includes only recent high school grads, about half of all proprietary students are older. Small sample of proprietary students did not allow for analysis by type of school or program. Comparison groups include non-vocational students. No statistical controls for background differences between the groups.
Goodwin (1989)	High School and Beyond 1986 followup of the class of 1980 is used to evaluate employment and earnings outcomes. This study is based on 1,500 students who attended community colleges, public technical institutes or proprietary schools between 1980 and 1984, who took at least 15% of their credits in vocational subjects and were not enrolled in school in 1986. If students attended multiple types of schools they are excluded.	Study population includes very few proprietary students. Short-term follow-up. Sample includes only recent high school grads, about half of all proprietary students are older. Small sample of proprietary student did not allow for analysis by type of school or program. Data from the National Longitudinal Survey is also used in completion analysis.

Lyke, Gabe and Aleman (1991)	High School and Beyond 1986 followup of the class of 1980. Comparison groups: high school only, proprietary completers, Public < 2 year completers, community college completers, 4 year bachelors.	Study population includes only 948 proprietary students. Short-term followup. Sample includes only recent high school grads, about half of all proprietary students are older. Small sample of proprietary students did not allow for analysis by type of school or program. Comparison groups include non-vocational students.
Grubb (1991a) (Summarizes a variety of other studies including Grubb 1991b, 1991c)	Uses the National Longitudinal Survey of the Class of 1972 data bases followed up in 1986 to examine earnings. Comparisons of male and female students who completed certificates, vocational associates, academic associates at proprietary schools, community colleges and public vocational programs are made. High School and Beyond data for the class of 1980 followed up in 1984 to measure completion.	Both data bases include a limited number of proprietary school students. Both samples include only recent high school graduates who entered institutions soon after high school and exclude the many older students found in all three types of institutions. Small sample of proprietary students did not allow for analysis by type of school or program.

What the Studies Show About Proprietary School Performance

Completion

All but one study that examined completion rates for comparable groups of proprietary and public students (Wilms, 1980, Sango-Jordon, 1989, Goodwin, 1989 and Lyke, Gabe, and Aleman, 1989), reported that proprietary school students are more likely to complete a program, usually a vocational certificate program, than students at public institutions. One study (Grubb, 1991) found no significant differences in dropout rates after controlling for differences in student background characteristics.

The studies use a variety of methods which result in a range of overall completion rates. Most show completion rates of round 60% for proprietary students. Wilms (1980) reported completion rates of 69%, Sango-Jordon (1989) 61%, and Lyke, Gabe and Aleman (1989) 66%. Looking at dropout rates, Grubb reports dropout rates ranging from 42% to 46%. Only one study, (Goodwin, 1989) reported substantially lower completion rates, (39%), although this was still above the rates he reported for public institutions. Goodwin (1989) notes that when you break down the overall completion rate to a specific credential, vocational certificates or associate degrees, that community college students are more likely to complete an associate degree, while proprietary students are more likely to complete a vocational certificate.

These studies seem to present a persuasive case that proprietary students are on the whole more likely to complete their program than public vocational students. Grubb would contend that the difference are due to background differences between the students at the different types of institutions. I would suggest an alternative explanation, that higher completion rates are a product of the incentives that drive proprietary schools.

Proprietary schools design their programs to be short-term and intensive, because of powerful economic incentives. Schools work hard to make it easy for students to finish programs quickly. They use intensive scheduling where students are in class, lab or shop six hours a day, five days a week. This way students do not have to persist though four semesters with summer and winter breaks in between, so it is easier for them to remain focused on the goal of completing.

Having students finish programs on schedule is also a key to proprietary schools' financial success. Proprietary schools must earn their tuition money by having students make progress towards completion. Schools lose money on dropouts because a student must persist in the program a substantial period of time before they even recover the recruitment costs. In many school operators view their profit is only earned at the end of the enrollment period. In many states recent changes in laws governing refunds have heightened these incentives. Tuition earned during the bulk of enrollment merely covers the expenses of training the student. Similarly, the schools lose money on students who move slowly through a program. Students who linger take up space and resources after they should have completed, keeping the school from enrolling another student and limiting revenues.

Table 2
Summary of Proprietary School
Outcome Studies-- Results

Study	Completion	Placement and Employment	Earnings
Wilms (1980)	69% proprietary students 46% public students.	No differences between public and proprietary students.	Proprietary students earned more on the first job, but there was no significant difference in later earnings.
Bishop (1985)	NA	Compared to employees trained by other institutions proprietary graduates: require 20% less training, are 20% more productive immediately, are 7% more productive after they are established on the job, overall productivity is 22% higher.	Proprietary graduates are paid 4% more than other graduates upon employment.
Sango-Jordon (1989)	61% proprietary students 43% other less than 4 year programs.	Employed full time: 88% proprietary 83% other less than 4 year Training related to current employment: 50% proprietary 41% other less than 4 year	Average Income 1985 Completed Program: $14,061 Proprietary $12,739 Other less than 4 year Did not Complete Program $12,217 Proprietary $12,884 Other less than 4 year
Goodwin (1989)	Completion Rate for Class of 1972 38.5% Proprietary 32.5% Public Tech Inst. 23.0% Community College Completion Rate for Class of 1980 Proprietary 12.5% Associate 23.5% Certificate Public Tech. Inst. 18.1% Associate 18.0% Certificate Community College 17.1% Associate 2.0% Certificate	Incidents of Unemployment* 27.7% Proprietary** 16.5% Public Tech Inst. 18.9% Community College (*Adjusted scores after controlling for background differences. **Proprietary rate is significantly higher than Public Tech Inst. rate.)	Adjusted Hourly Wages* $7.40 Proprietary $5.90 Public Tech. Inst.** $6.63 Community College (*Adjusted hourly wages control differences in background. **Both Proprietary and Community College students significantly more than Public Tech. Inst students.)

Lyke, Gabe and Aleman (1989)	Completed degree or certificate: 66% Proprietary 41% All 1980 graduates Proprietary students completing degree or certificate at other institution: 4% 4 Year College 2% Community College 3% < 2 year school (After controlling for background differences there is no significant relationship between type of institution attended and completion.)	Employment Rate 1986 Proprietary Completers: 77.2% Men 73.5% Women Public < 2 Year Completers: 86.5% Men 77.9% Women Community College*: 89.4% Men 81.0% Women (*Significant positive relationship with employment after controlling for background differences)	Hourly Wage Rate 1986 Proprietary Completers: $7.85 Men $6.47 Women* Public < 2 year Completers: $7.31 Men $6.60 Women Community College Completers: $7.09 Men $6.06 Women (*Significant positive relationship after controlling for background)
Grubb (1991a, 1991b, 1991c)	Community College, Public Vocational, and Proprietary students are equally likely to drop out (between 42 and 46%) within 4 years of enrolling. Compared to community college students, proprietary students are more likely to complete certificates, equally likely to complete a vocational associates, and less likely to complete an academic associates, or transfer to a 4-year college. Compared to public vocational students,, proprietary students are more likely to complete a certificate, less likely to complete a vocational associates and equally likely to transfer to a 4-year college. Outcomes do not control for differences in background characteristics.	NA	Male proprietary students who completed a certificate had higher annual earnings and wages than community college or public vocational certificate completers, but after controlling for background differences there was no significant difference. Female proprietary certificate completers had lower wages and annual earnings than community college and public vocational certificate completers, after controlling for background differences. Both male and female proprietary vocational associates completers had lower wages and annual earnings than community college and public vocational associate degree completers after controlling for differences in background characteristics.

To keep students moving through the program, proprietary schools take measures unusual in the public sector. Daily student attendance is carefully tracked, absent students will be called at home to see why they are absent. Students often must punch in and out at the start and finish of each school day. Much instruction is self-paced and students are encouraged to accelerate if they can.

Placement and Employment

Data on placement and employment show a somewhat different picture. Wilms (1980) found no significant differences between public and proprietary students in employment. But he noted that both public and proprietary students in high status occupations such as accounting were unlikely to find a related job, while a large proportion of public and proprietary students in lower status occupations such as secretarial fields found related jobs. Other more recent studies indicate that proprietary students are less likely to be employed after leaving school. Goodwin (1989) probably offers the most sophisticated analysis. After controlling for background differences he found that proprietary students were significantly more likely to experience unemployment than public technical students, but found no significant difference between proprietary school students and community college students. Lyke, Gabe, and Aleman (1989) examined employment rates for completers only. They found that both male and female graduates of public vocational and community college had higher employment rates than proprietary school graduates.

Sango-Jordon (1989) examined the employment rates for all public and proprietary students regardless of whether they finished. Her data show a higher employment rate for students who chose a proprietary school. She also found that proprietary students were more likely to work in jobs for which their training prepared them. Sango-Jordon's analysis does not control for differences in student background.

Bishop (1985) took a very different look at employment outcomes. His study, which focused principally on the impact of training on productivity, found that compared to employees trained at other institutions, proprietary students required 20% less training when first hired, were 20% more productive immediately, and 7% more productive after they were established. Employees from proprietary schools had 22% higher productivity overall.

Despite the fact that most proprietary schools pride themselves on their placement rate, this analysis indicates that proprietary students probably are slightly less likely to be employed and more likely to experience unemployment after they complete a program than their counter parts in public vocational programs, but they are not significantly less likely to be employed than community college vocational graduates. The reasons for this trend are unclear. These analyses reveal the limits of the data bases employed. For example, older students who attend these institutions may have different experiences not captured by the longitudinal data bases.

Proprietary graduates may be more likely to experience unemployment because they are placed in a different mix of the occupations than public sector students. For example, a large

proportion of proprietary schools are cosmetology schools. Many cosmetologist work sporadically, or work in the cash economy. An alternative hypothesis may be proprietary students are viewed as less valuable in the market and are more likely to be laid off than others, although this explanation is refuted in part by Bishop's (1985) research. The analyses do not take into account the impact of local labor markets or any data on the quality of training received. Hence these data may mask significant and important differences between the regions in which graduates work. For example, proprietary schools appear to be more likely to be located in urban areas, while public community colleges and postsecondary vocational institutions may be more likely to be found in suburban and rural areas.

Interestingly, there is some suggestion from Bishop (1985) that proprietary students arrive on the job better prepared to go to work than employees trained at other institutions. Again the data do not reveal the causes for this finding. It could be that proprietary schools driven by the profit motive are more closely connected to local labor markets and do a better job of meeting employer expectations, or it could simply be that proprietary graduates who end up being hired are qualitatively different from other employees. They may be more motivated, more mature, or have more work experience.

Earnings and Wages

The pattern for earning and wages is similarly mixed. Wilms (1980) found that proprietary graduates earned more initially but that this difference quickly disappeared over time. Similarly Bishop (1985) found that employees with proprietary training earned 4% more upon employment than workers trained at other institutions. Goodwin (1989) found that after controlling for background characteristics, proprietary students and community college students earned more than public technical institute students, but that there was no significant difference between proprietary and community college vocational students. Sango-Jordon (1989) found that proprietary student who completed their program earned about $1,300 more in 1985 than completers of other less than two year programs. However, among non-completers she found proprietary students earned about $600 less.

Lyke, Gabe and Aleman (1989), after controlling for background differences found a significant positive effect on wages only for women who completed a proprietary school. They found no such positive effect for male proprietary students or for men and women trained by public less than two-year programs or community colleges.

The analysis in Grubb (1991a) is the most sophisticated and long term. He finds that male proprietary students who completed a certificate had higher annual earnings and wages, but after controlling for background differences they did not do significantly better than certificate completers in public vocational programs and community colleges. Conversely after controlling for background differences, proprietary female certificate completers had significantly lower annual earnings and wages than female public vocational and community college certificate completers. Similarly both male and female proprietary students who completed an associates degree earned less than community college and public vocational associate degree completers.

Again, interpreting these diverse results is difficult due to small samples, lack of data on program quality, occupational differences and local labor market characteristics. From the research it seems fair to conclude that although proprietary students may earn higher wages at initial placement, these difference quickly disappear. In fact, it appears that in some cases, particularly among associate degree holders, proprietary students will end up earning less than community college or public vocational graduates. Again, the different mix of occupations in which proprietary schools are trained may account in part for differences in earnings and wages. The disproportionate number of cosmetology students, who work sporadically and often for cash, may account for part of the differences in earnings. Or the results may reflect the higher value employers put on training and credentials from the public sector. Again, these analyses do not take into account differences in local wage rates or earnings.

Developmental Outcomes for Minnesota Proprietary Schools

While most proprietary school claims and most criticism of the schools focus on labor market outcomes, it is important to note that many proprietary schools also claim to provide their student with powerful experiences that help them develop as individuals. Many proprietary school operators boast of being "last chance institutions" that are able to train and motivate students who failed at other public institutions. They claim that their instructional approaches build students self esteem, and give them the confidence they need to succeed in a competitive work place.

This claim was tested in a recent followup study of Minnesota proprietary school students (Moore and Smith, 1992) who were enrolled in 1990, and followed up a year later. The study use and item from the CIRP freshman survey follow-up (Wingard, Dey, and Korn, 1991) to ask proprietary school students to assess their personal development by comparing how they perceived themselves before enrolling in a proprietary schools with today. Students were asked to describe whether they were now: "much stronger", "stronger" "no change" "weaker" or "much weaker" than when they enrolled. The results below compare the percent of Minnesota proprietary students who said "much stronger" with the national norms for public two year college students who enrolled in 1988 and were followed up in 1990 (Wingard, Dey, and Korn, 1991 p.69).

Table 3
Students Reporting "Much Stronger" Skills and Abilities
Minnesota Proprietary School Students and Public Two Year Colleges

	Percent Minn. Proprietary	Percent Public Two Year
General Knowledge	30%	23%
Analytical and Problem Solving Skills	18	12
Knowledge of particular field or discipline	40	34
Ability to speak and write clearly	14	15 (write) 19 (speak)
Leadership ability	15	10
Ability to work independently	27	27
Interpersonal Skills	18	22
Cultural Awareness and appreciation	12	13
Tolerance of persons with different beliefs	13	19

This analysis is subject to some obvious limits. The proprietary data are from Minnesota students only, who may differ significantly from a national population of proprietary school students, while the public two-year college students are a national group. The proprietary population includes only vocational students, while the public two-year group includes both academic and vocational students.

With these reservations in mind, the data do indicate that Minnesota proprietary students are more likely to report they are "much stronger" in areas related to cognitive development such as "general knowledge" "analytical and problem solving skills" and "knowledge of a particular field or discipline". This is interesting considering the greater emphasis public two year colleges

put on general education. Public students are more likely to report that they are "much stronger" than proprietary students in the areas "interpersonal skills" and "tolerance of persons with different beliefs". Proprietary students reported more development in the area of "leadership ability".

These results would seem to indicate that proprietary school students do experience substantial personal development that goes beyond vocational training while enrolled. They report changes in cognitive development equivalent or better than public two-year colleges students nationally, although they report less development in the area of intercultural relations.

Heroes or Villains: The Verdict

A clear headed analysis of these studies results in a hung jury. The schools cannot be declared heroes, as their owner wish, or villains, as their legion of detractors so often claim. In fact, the real outcome of proprietary schools is probably a rapidly moving target. As the number of schools increases and decreases with shifting demographics and changes in regulatory policy, the performance of the overall sector will vary. The current industry shake out which is reducing the number of school dramatically, will probably improve the overall performance of the sector as weak schools, which often serve extremely disadvantaged populations, go out of business and stronger, higher performing schools survive.

This analysis, with these caveats in mind, leads to less dramatic conclusions:

1. To the extent that available research represents both public and proprietary sectors accurately proprietary schools are not performing far differently than public institutions in terms of completions, placements and earnings. Certainly the media image of a sector made up principally of quick buck artists, ripping off students and providing no training of any value is unsupported by serious research. Nor is there much support for the claim that proprietary schools far outperform public institutions that serve similar students on these measures.

2. These studies indicate that it is possible to measure the performance of the sector in terms of completion rates, placement and employment outcomes and earnings. But this approach is limited by the availability of national data sets with a significant number of proprietary school students or data which include older students. The fact that it can be done should encourage policy makers to fund the creation of more comprehensive samples that would allow more sophisticated and accurate analysis.

3. Completion, employment and earnings outcomes are recognized, by both supporters and critics of the proprietary sector, as legitimate measures of performance. These outcomes can provide an objective basis for measuring the performance of individual schools and perhaps provide a criteria including or excluding institutions from federal and state student aid programs. As long as individual schools outcomes are adjusted for the population served and local economic conditions, holding schools accountable to some

level of performance on these measures seems more than reasonable.

4. While proprietary schools' primary mission is to train students for immediate employment, there is some evidence that they may also help to develop students in more general areas. The impact of proprietaries on students' personal development is an area that needs much more attention from researchers. Again, an approach that contrasts proprietary students outcomes with comparable public sector data would be valuable.

5. Despite twenty-five years of sporadic research on proprietary schools, our understanding of them is sketchy at best. Future research needs to go beyond looking at simple outcomes, such as completions, to examine the schools in depth and answer more complex questions. What separates effective schools from less effective schools? How do students come to choose a proprietary school? What types of consumer information influence this choice? Why do proprietaries have special appeal to disadvantaged schools? How do regulatory policy, accreditation and incentives within the federal student aid system shape schools' behavior? And finally, what is the social return to the public for investing federal student aid dollars in the proprietary sector?

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