

United States General Accounting Office

Report to the Chairman, Subcommittee on Human Resources, Committee on Government Reform and Oversight, House of Representatives

June 1997

PROPRIETARY SCHOOLS

Millions Spent to Train Students for Oversupplied Occupations



GAO

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Health, Education, and Human Services Division

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The Honorable Christopher Shays Chairman, Subcommittee on Human Resources Committee on Government Reform and Oversight House of Representatives

Dear Mr. Chairman:

Under the Higher Education Act's (HEA) title IV programs,¹ the federal government annually invests billions of student financial aid dollars to help fund occupation-specific training at proprietary schools. Administered by the Department of Education, title IV programs help provide access for thousands of proprietary school students to train for a diverse range of occupations, such as automobile mechanics, electronic technicians, and nurses. About \$3 billion in student aid, primarily subsidized loans, financed occupational training for fiscal year 1995 at proprietary schools—the principal vendors of occupational training under title IV.

Proprietary school graduates face some unique challenges in the labor market. Because most proprietary school skill training lacks a general education component, it is not readily transferable to other occupations. This produces proprietary school graduates who are less versatile workers than graduates of degree-granting programs. In addition, wages for positions suitable for proprietary school graduates are usually too low to motivate these graduates to relocate long distances to find work, making them more dependent on local labor market conditions. These circumstances make proprietary school graduates more susceptible to unemployment and less likely to meet their student loan obligations than other postsecondary graduates.

A recent report by Education's Inspector General (IG) raised concern about proprietary school students being trained for occupations with a surplus of job seekers but a scarcity of jobs. The IG estimated that taxpayers and students spent over a billion dollars for fiscal year 1990 for cosmetology training, even though the national supply of cosmetologists

¹Title IV established financial aid programs for students attending institutions of higher education and vocational schools and includes the Federal Family Educational Loan Program and the William D. Ford Direct Loan Program. Both offer subsidized and unsubsidized Stafford loans and Parent Loans for Undergraduate Students. Title IV also established the Federal Pell Grant Program and the Federal Perkins Loan Program.

exceeded demand by over one million.² Some members of the Congress believe that student loan default rates for proprietary school students, more than twice that of students attending other postsecondary schools, may stem in large part from a mismatch between their training and the skills employers demand.

Because of concerns about a mismatch between title IV-funded occupational training and skills demanded in the labor market, you asked us to determine the extent to which title IV funds finance proprietary school training in fields with insufficient job demand. More specifically, we agreed with your office to provide information on (1) title IV money spent to train proprietary school students for occupations with a surplus of trained individuals, (2) ways government-sponsored training programs use labor market information to target training funds toward fields with promising employment outcomes, and (3) the merits of using labor market information to target training funds.

To address these issues, we analyzed labor supply and demand data for 12 states (see fig. 1). We selected these states mainly because they accounted for about 63 percent of the title IV funds received by proprietary schools in fiscal year 1995. We compared labor demand projections for selected occupational categories, or clusters, with the number of graduates from occupation-specific training programs. On the basis of state labor department practices, we considered a labor supply surplus to exist when at least two students completed training for each projected job vacancy, a ratio of 2 to 1 or an oversupply of 100 percent.

Our analysis is based on state-level labor market data. Although local labor market conditions—which can cross city, county, and state boundaries best indicate an individual's employment opportunities, these data are not consistently maintained for all locales. Because the job market for graduates of occupation-specific programs rarely extends beyond state boundaries, national-level data are not appropriate for this type of study. According to Bureau of Labor Statistics (BLS) officials, state-level data provide a good approximation of employment opportunities at local levels.

Although we have tried to be conservative in our analysis, our labor market projections have some limitations. The labor demand data we used are based on estimates of job openings prepared by states using industry growth projections and staffing patterns. Unforeseen changes in economic

²<u>Management Improvement Report No. 93-03</u>, U.S. Department of Education IG, (Washington, D.C.: Mar. 12, 1993).

conditions at the local or national level can cause actual and projected demand to differ. Our labor supply data are entirely based on students who graduated from postsecondary education school programs in fiscal year 1995. As such, we understated the available labor supply by, among other things, excluding avocational and adult basic education program graduates.



	We also examined the role that labor market information plays to help target program funds in three major government-sponsored job training programs: the Job Training Partnership Act (JTPA) and the federal vocational education and welfare-to-work job training programs. We reviewed their program documentation such as laws, regulations, and policies. In addition, we spoke with officials of these job training programs in the 12 selected states on their use of labor market information and reviewed related program policies and legislation. Furthermore, we discussed the merits of using labor market information to target training funds with federal and state job training program administrators, recognized experts, ³ and officials at the Departments of Education and Labor. Appendix I describes in more detail our information sources and methodology.
Results in Brief	The federal government spends millions of student financial aid dollars to train students for occupations that already have a surplus of workers. For fiscal year 1995, \$273 million in title IV funds subsidized over 112,000 proprietary school students to train in fields with projected labor supply surpluses in the 12 states we reviewed. In some cases, proprietary school students received training in occupations with projected labor supply surpluses in several states. For example, 28,000 proprietary school students were trained in electrical/electronic technology in seven states that each had a labor supply surplus.
	Several major federal job training programs restrict training to fields with favorable job demand projections. JTPA, the largest federal employment training program, specifies that participants may train only for occupations for which sufficient job demand exists. In addition, the federal Carl D. Perkins Vocational Education Act requires that state plans describe how training funds will be used for occupations with available or projected job openings. Also, until recent welfare legislation passed on responsibility to states under block grants, the federal Job Opportunities and Basic Skills (JOBS) program had similar requirements that compelled welfare agencies to work with private industry councils to ensure that programs provided training for jobs likely to become available in an area. Although government officials did not support using labor market data to regulate title IV participation, they and experts we interviewed advocated providing prospective students of occupation-specific training programs

³Experts included specialists from labor market research centers at three universities as well as knowledgeable staff from BLS and the National Occupational Information Coordinating Council.

	access to lobor supply and domand projections. In accessing that such
	access to labor supply and demand projections. In agreeing that such information would help these students make more informed training decisions, these interviewees also noted the need to supplement the data with other labor market information, such as training-related placement and wage rates of recent program graduates. Using labor market projections provides a rational basis for making training investment decisions, which was a noted advantage. As a disadvantage, the interviewees cautioned that such data are inherently imprecise.
Background	Under title IV, the federal government provides grants and loans to help students finance the cost of attending postsecondary schools. The kind of schools eligible for title IV programs has changed over time. Initially, only public and nonprofit schools were eligible under the HEA of 1965. To expand access to students, the Congress amended the HEA and made proprietary schools eligible for the complete range of student aid by 1972.
	Proprietary schools contribute to the nation's competitiveness by providing occupational training to traditionally noncollege-bound individuals. Most proprietary schools are small, enrolling fewer than 100 students, and offer occupational training lasting 2 years or less. They enroll a higher percentage of women, minorities, and low-income students, serving a rather heterogeneous student population compared with nonprofit institutions. About 67 percent of proprietary school students receive title IV federal student aid.
	Under title IV, the law treats proprietary schools differently from other institutions. For example, a proprietary school's eligibility is contingent on its training programs preparing students for gainful employment in a recognized occupation. As early as 1971, members of the Congress explicitly recognized a need for proprietary school training to relate to labor market needs. Because employment directly affects the ability to repay student loans, default rates are an important gauge of the quality and usefulness of postsecondary education training programs. Default rates of proprietary school students have consistently exceeded rates for other postsecondary school students. For fiscal year 1994, the default rate for proprietary school students was 21.1 percent as compared with 13.7 and 6.5 percent for students of 2-year and 4-year nonprofit colleges, respectively. For fiscal year 1992 (the most recent data available), the federal government paid about \$140 million to cover defaulted student loans to proprietary school students.

The Congress added an additional requirement for proprietary schools' eligibility to participate in title IV programs when it reauthorized HEA in 1992. Known as the 85-15 rule, this rule requires proprietary schools to obtain at least 15 percent of their revenues from sources other than federal student aid programs. The rationale for this provision is that schools providing a quality education should be able to attract a reasonable percentage of their revenues from sources other than title IV. Another requirement that affects proprietary schools dictates that short-term programs—those less than 600 hours long—must maintain completion and placement rates of at least 70 percent for eligibility.

In addition to the Congress' recognizing the need to treat proprietary schools differently from other postsecondary schools, the administration proposed combining title IV grants for nondegree programs with newly proposed skill grants in the 1996 budget. The skill-grant proposal was intended to ensure that vocational students get information about labor market outcomes relevant to their proposed training field before actually enrolling. The administration, though no longer recommending that title IV nondegree training funds be combined with skill grants, recognizes that labor market information is an integral part of a job training system and supports creating a stronger labor market information system.

The philosophy underlying title IV contrasts starkly with that underlying government-sponsored job training. Title IV programs are based on individual choice and implicitly assume that students use some information source to make good judgments. As a result, financial aid recipients may choose any area of study—whether a liberal arts degree or a certificate in air-conditioning repair—as long as the institution meets Education's title IV eligibility requirements such as licensure and accreditation. The extent to which students make informed decisions largely depends on their initiative and self-reliance. In contrast, in federal job training programs, the law limits individuals' choices to occupations with labor demand. For example, some job training programs limit training to occupations for which local employers have guaranteed placement of program graduates.

In recognizing the critical importance of information, the Congress has acted to expand the information available to title IV students making education and training decisions. The Student Right-to-Know and Campus Security Act⁴ requires that schools with certificate or undergraduate degree-granting programs participating in title IV annually disclose

⁴P.L. 101-542, enacted Nov. 1990.

	students' completion rates. Under implementing regulations, the first results are due by January 1, 1998. The act does not require schools to disclose information on graduates' employment outcomes, however, such as training-related job placement rates or wages, or on local labor market conditions.
Financial Aid Recipients Train for Occupations Oversupplied in Multiple States	Millions of title IV program dollars went to proprietary schools for students who trained in fields with a surplus labor supply. For 12 states, \$273 million in title IV funds was spent to subsidize over 112,000 proprietary school students who trained for jobs with a projected surplus labor supply in fiscal year 1995, according to our estimate. Occupations that were oversupplied and for which proprietary school students received student aid were diverse, including legal assisting, respiratory therapy, appliance/equipment repair, and drafting.
	Although proprietary schools in all 12 states trained students for oversupplied occupations, the amount of federal student aid spent and the number of students trained in oversupplied fields varied (see table 1). Title IV funds spent to finance training in oversupplied fields ranged from a low of \$3 million in South Carolina (about 22 percent of the title IV funds received by its proprietary school students) to a high of \$47 million in Arizona (about 21 percent of the title IV funds received by its proprietary school students). The number of students receiving such funds ranged from 1,000 in Washington (about 6 percent of its proprietary school students) to 17,900 in California (about 12 percent of its proprietary school students).

Table 1: Estimated Financial Aid Spentby Students Training for OversuppliedOccupations in 12 States, Fiscal Year1995

State	Federal financial aid dollars (millions)	Percentage of proprietary school aid directed to oversupplied occupations	Number of students	Percentage of proprietary school students training for oversupplied occupations
Arizona	\$47.2 2	1	13,900	27
California	36.1 9		17,900	12
Florida	31.7 2	3	10,700	23
Illinois	13.6 1	3	7,700	25
Indiana	33.2 3	8	16,400	50
New Jersey	16.8 1	8	5,000	17
New York	29.4 1	8	13,500	19
Oregon	6.9 3	1	2,400	37
Pennsylvania	26.7 1	5	11,700	20
South Carolina	3.0 2	2	1,800	28
Texas	20.3 1	1	10,300	16
Washington	8.6 1	1	1,000	6
Total	\$273.3ª	16	112,300	20

^aNumbers do not add to total due to rounding.

The surplus of qualified job candidates, including proprietary school graduates, for some occupations occasionally reached dramatic proportions in some states, exceeding demand by ratios of 10 to 1 or more. Overall, 51 percent of the jobs we identified as oversupplied had ratios of graduates to projected job openings at least as high as 4 to 1; the high was 42 to 1 for appliance/equipment repair in California. States where the majority of oversupplied occupations had ratios of graduates to projected job openings at least as for graduates to projected job openings had ratios of graduates to projected job openings had ratios of graduates to projected job openings had ratios of graduates to projected job openings equaling or exceeding 4 to 1 included

- Arizona, with 11 of 15 occupations, whose high was a ratio of 34 to 1;
- Indiana, with 5 of 6 occupations, whose high was a ratio of 12 to 1; and
- New York, with 5 of 7 occupations, whose high was a ratio of 9 to 1.

In the 12 states, proprietary school students received training in jobs classified under 23 occupational categories with a labor surplus. Jobs classified in two occupational categories, however—barbering/ cosmetology and electrical/electronic technology—accounted for about two-thirds of the title IV funds (\$172 million) and proprietary school students (75,900) associated with oversupplied occupations.

Some occupations were oversupplied in several states. The barbering/ cosmetology category had a surplus labor supply in 10 of the 12 states—the highest of any category—involving about \$86 million in title IV funds and 48,100 proprietary school students. Appliance/equipment repair (\$6.8 million and 2,100 students) and legal assisting (\$18.7 million and 6,400 students) had a surplus labor supply in eight states. In total, about \$260 million—95 percent of the title IV dollars spent training students for oversupplied occupations—went to occupations oversupplied in many states.

Table 2: Financial Aid for OccupationsOversupplied in Many States, FiscalYear 1995

		Estimated financial	Estimated students
Occupation	States	aid (millions)	receiving aid
Barbering/cosmetology	10	\$85.8	48,100
Appliance/equipment repair	8	6.8	2,100
Legal assisting	8	18.7	6,400
Electrical/electronic technology	7	86.6	27,800
All other engineering technology	5	12.8	4,600
Respiratory therapy	5	4.2	1,600
Miscellaneous health services	5	16.7	6,200
Air-conditioning/heating installation/repair	3	9.9	3,400
Optical technology	3	6.6	4,000
Electromechanical equipment/instrument/ production repair	2	1.4	300
Airplane piloting	2	2.5	300
Pharmacy support	2	5.4	2,000
Medical secretarial	2	2.9	1,500
Total		\$260.2ª	108,200 ^a

^aNumbers do not add to total due to rounding.

Many of the proprietary school students who trained for oversupplied occupations benefited in one way or another. First, because each of the oversupplied fields has vacant positions, some proprietary school graduates will get jobs in their chosen fields. In New York, for example, jobs in the electrical/electronic technology field had five qualified workers for each job vacancy—1,367 trained workers vying for 280 openings. In this case, one of every five proprietary school graduates who received training could conceivably get a job in the field. Second, the education of

	proprietary school students may have benefits that extend beyond the occupational field. Some employers use credentials—a degree or certificate showing completion of a field of study—to screen out less qualified job candidates. Such credentials show these employers that prospective workers have demonstrated critical skills that will make them effective members of the labor force, such as coming to work on time, completing assignments, and following a project from beginning to end. These employers may well assume that people who complete training programs are more talented than those who either failed to enroll in or complete a postsecondary training program.
Some Government- Sponsored Training Limited to Occupations With High Demand	Some major federal and state programs that support short-term occupational training limit training to areas with a documented labor demand. Each program requires training opportunities to be based on an analysis of local labor markets and training plans based on projected job demand. Furthermore, these programs interact with local business community representatives to continually assess local labor market conditions. Although each program serves different populations, such as disadvantaged youth or dislocated adult workers, the programs share a goal of helping clients develop training skills to improve their employment prospects.
JTPA	Enacted in 1982, title II of JTPA has been the cornerstone of federal employment training programs. JTPA supports job training for individuals facing barriers to employment and needing special training to obtain productive employment. JTPA programs annually provide employment training for specific occupations and services to roughly one million economically disadvantaged individuals. Service providers, such as vocational-technical high schools, community colleges, proprietary schools, and community-based organizations provide training in local service delivery areas. The program objectives are to increase earnings and employment and to reduce welfare dependence for participants of all ages. In fiscal year 1997, the Congress appropriated almost \$2 billion to JTPA title II programs.
	JTPA funding is restricted to training participants for occupations with demonstrated labor demand in areas where participants currently reside or are willing to relocate. Although the program has various implementation strategies, generally, labor market specialists from a state's labor or workforce agency develop and provide labor demand

	projections, usually at both local and statewide levels. Local boards use this information in their annual plans to identify occupations to target. Recognizing that local conditions change, states often have provisions to allow local boards flexibility to respond to unforeseen changes in job demands. Generally, training in fields not identified in plans requires additional documentation of specific local conditions such as results of local industry surveys.
Vocational Education	Funding provided under the Carl D. Perkins Vocational Education Act (P.L. 98-524) supports vocational education at both the secondary and postsecondary levels. Vocational education prepares students for employment through an organized sequence of courses directly related to jobs that do not require a baccalaureate degree. The Department of Education provides funding to states for distributing to school districts and community and technical colleges. Although the act requires schools to ensure that students who are disadvantaged or have disabilities or limited-English proficiency have access to vocational education programs, school districts receive the funds to be used on vocational education in general. In fiscal year 1997, the federal government provided about \$1.1 billion to support Perkins Act programs.
	The federal vocational education law requires that state plans describe how funds spent on occupation-specific training will be used for occupations that labor market analysis shows have actual or projected job vacancies. ⁵ Schools that receive federal vocational education funds must spend them according to the state priorities identified in the state plans. The legislative requirement is helpful because the labor market analysis encourages states to reflect changing labor market conditions in their plans, commented one Education program official.
Welfare-to-Work Job Training Programs	The federal welfare job training program—JOBS—was the primary federal training program for welfare recipients until it was passed on to the states. ⁶ The Family Support Act of 1988 created JOBS to help parents receiving welfare obtain the education, job skills training, work experience, and support services needed to increase their employability and avoid
	⁵ State plans, updated as often as annually, address several areas concerning implementation of vocational education, such as how program spending will reflect the state's training needs.
	⁶ Under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, the IORS

⁶Under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, the JOBS program is generally repealed as of July 1, 1997, with certain transition rules in effect.

	long-term welfare dependency. Administered by state welfare agencies, JOBS training appropriations totaled \$1 billion in fiscal year 1996.
	The JOBS program required welfare agencies to work with private industry councils and ensure that programs provided training for jobs likely to become available in an area. It also required state agencies to use private industry council services to identify and get advice on the types of jobs available or likely to become available in a service delivery area. State plans were to describe state coordination efforts with private industry councils, and their consultations with the councils were to ensure that JOBS training and educational activities were directed toward jobs that were currently or likely to become available.
Experts Advocate Students' Use of Labor Market Information	In discussing ways to better target occupation-specific training under title IV, the experts we spoke with generally identified two approaches: (1) restricting eligibility to programs with suitable future labor demand and (2) ensuring that students consult sufficient information sources on likely labor market needs before choosing training programs. Regulating program eligibility on the basis of labor market projections was rejected by our interviewees. Schools that, despite low labor demand projections, manage to place high proportions of their graduates in training-related fields should not be penalized, they said. They also expressed a reluctance to interfere with the free-market principles—such as allowing individuals to specialize in the field of their choice—underlying the title IV program. In contrast, with some stipulations, the notion of providing prospective students better information on labor market conditions was unanimously supported.
	Better resource targeting could result from informing prospective students of occupation-specific training of labor market conditions, according to labor market experts. Enabling these students to review labor demand projections provides them with a sound basis for deciding on vocational training, these experts said. For example, labor demand projections would allow such students to distinguish between growing and declining occupations. Anecdotal information is more likely to result in poor training decisions. Students could also better determine the merit of investing their time and money by having data on the employment experiences of recent program graduates, according to these experts. For example, even though a field may have good employment prospects, prevailing wages must also appeal to job candidates. Training-related

	placement rates would also inform prospective students about a training program's success in competing for market share, the experts said.
	Labor demand conditions, however, should not be the sole determinant of which training field a student should pursue, according to these experts. First, the prospective student's personal characteristics play an important role. An individual's basic skills, aptitude, and interests are prime considerations. Second, labor supply and demand data are generally imprecise. For example, labor supply projections typically exclude some categories of skilled workers and potential out-of-state workers who may relocate. On the demand side, labor projections, particularly for local areas, can be highly sensitive to single economic incidents and therefore misleading when unforeseen events in the economy curtail labor demand.
Conclusions	The discretion afforded proprietary school students under title IV makes consumer information critically important. In passing the Student Right-to-Know Act, the Congress recognized the need to improve the quality of student-consumer information. The act stops short, however, of requiring schools to report employment outcomes of recent graduates such as training-related job placements. In addition, no mechanism currently exists to ensure that students get important information on local labor market conditions. The result is a system that embraces individual choice without ensuring that students have the information needed to make sound training investment decisions. Not surprisingly, this has possibly contributed to student financial aid being directed to skill training not demanded by the workplace—more than a quarter of a billion dollars for 12 states in fiscal year 1995 alone. Having information on recent graduates' success in the job market and the likely future demand for skill training should help prospective students make more informed training investment choices.
Recommendation to the Congress	We recommend that the Congress expand the Student Right-to-Know Act to require proprietary schools to report recent graduates' training-related job placement rates. The act currently requires all title IV-eligible schools to report student completion rates but not graduates' employment experiences. Such information would help prospective students understand the usefulness of recent graduates' occupational training programs.

Recommendation to the Secretary of Education	We recommend that the Secretary identify and take appropriate action to ensure that prospective proprietary school students have access to employment and earnings projections relevant to their chosen training field and local area.
Agency Comments	In commenting on a draft of this report, Education stated that our recommendation to require proprietary schools to report placement rate data is consistent with the administration's stated desire to ensure that schools provide students useful information about educational programs for making informed training decisions. The Department concurred with our suggestion that information on student outcomes will help ensure that market forces work better to eliminate inadequate schools and programs from title IV participation. Education promised to seriously consider our recommendation on enhancing the reporting requirements of the Student Right-to-Know Act to include placement rates as part of its HEA reauthorization proposal.
	 Education questioned one specific result, noting that the 1996-97 Occupational Outlook Handbook lists occupational therapy assistants and aides as the fourth fastest-growing occupation in the nation, though we found it to be the most oversupplied occupation in Arizona. The Occupational Outlook Handbook provides national demand projections which, as stated earlier, may not reflect conditions of individual labor markets. In this case, the supply of qualified Arizona graduates far exceeds the projected job openings. Given that proprietary school graduates are less likely to relocate for work, such results underscore the importance of information on local labor market conditions. (A copy of Education's comments appears in app. III.) Education did not comment on our recommendation that it identify ways to ensure that students have access to employment and earnings data.
	As arranged with your office, unless you announce its contents earlier, we plan no further distribution of this report until 30 days after the date of this letter. At that time, we will send copies to the Secretary of Education. We will make copies available to others on request.
	If you have any questions about this report, please call Cornelia M. Blanchette, Associate Director, Education and Employment Issues, at (202) 512-7014. This report was prepared under the direction of Wayne B.

Upshaw, Assistant Director. Other major contributors to this report are listed in appendix IV.

Sincerely yours,

Atlantera hauf

Richard L. Hembra Assistant Comptroller General

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Abbreviations

BLS	Bureau of Labor Statistics
HEA	Higher Education Act
IG	Inspector General
IPEDS	Integrated Postsecondary Education Data System
JOBS	Job Opportunities and Basic Skills
JTPA	Job Training Partnership Act

Appendix I Data Sources and Methodology

We used a variety of data sources to estimate the extent to which title IV funds support students training for occupations with insufficient job demand. We used 12 states' job opening projections as our measure of job demand.⁷ On the supply side, we estimated the supply of proprietary school and other postsecondary graduates from those states using the Integrated Postsecondary Education Data System (IPEDS) of the National Center for Education Statistics. The corresponding financial aid information came directly from the Department of Education's student loan and Pell grant records. The state and federal data were self-reported and unverified. We compared the number of postsecondary graduates preparing for an occupation with the projected job openings to estimate which occupations would have surplus labor supply, a method that experts confirmed as the most suitable approach to predict labor market conditions, given the data available. We performed our work between April 1996 and March 1997 in accordance with generally accepted government auditing standards.

Data Sources

State Job Openings Projections	For labor demand estimates, we used job openings projections provided by the 12 states for 1995. Job openings result when industrial expansion creates new positions (growth) and when current employees vacate positions because of death, retirement, or separation (replacement). States forecast industry growth using current and past BLS industry survey results. Then, using knowledge of industries' staffing patterns, states convert industry growth projections into growth in occupations. BLS estimates occupational replacement needs from the Current Population Survey for its Occupational Projections and Training Data report and provides this information to states. States calculate total job openings by adding those created by industry growth and those due to replacement needs. As projections, the job openings data we used are sensitive to unforeseeable fluctuations in the local and national economy and within industries.
IPEDS Graduates Data	We based our estimates for labor supply on IPEDS 1994-95 data on postsecondary school graduates. IPEDS identifies schools by type of degree (baccalaureate or higher degree-granting institutions, 2-year award
	⁷ Together, these states represented 63 percent of the title IV funds provided to proprietary schools in fiscal year 1995.

institutions, and less-than-2-year institutions) and by control (public, private nonprofit, and proprietary). Institution-level data—on academic, vocational, and continuing professional education programs—are collected on almost all postsecondary institutions eligible for federal student financial aid funding. IPEDS, however, provides only a partial accounting of trained entrants to the workforce.

IPEDS understates the available supply of students trained for occupations. It excludes information on avocational and adult basic education program graduates. IPEDS also excludes some who complete occupational training, including graduates of high school vocational education programs, vocational rehabilitation programs, JTPA training, Job Corps programs, and recently discharged military personnel. In using IPEDS to estimate the supply of qualified individuals in an occupation, we underestimate the labor supply and thus the supply and demand ratios we report.

Linking Financial Aid to Oversupplied Occupations

Specifying the Labor Market for Proprietary School Graduates	We chose the state level as the unit of analysis for assessing supply and demand outlooks. Proprietary school students generally are not as likely as students at 4-year colleges and universities to relocate for employment, labor market experts told us. In reality, the relevant labor market could be either larger or smaller than a state depending on the area and the occupation. Analyzing the labor supply and demand outlook for particular occupations at the national level has many drawbacks. One problem occurs when national averages are assumed to apply at the state level. For example, an auto mechanics shortage in California combined with an auto mechanics surplus in New Jersey could appear to be a balanced supply and demand. Such a conclusion would only be correct if auto mechanics from New Jersey would be willing and able to relocate to California. This is unlikely to occur for most occupations taught at proprietary schools, according to current research. Therefore, examining too large an area would lead to identifying neither the labor shortage in California nor the labor surplus in New Jersey. Although experts believe an area smaller than a state may be more relevant in some locations, we used the state as the analytical unit in all cases.

Identifying Oversupplied Occupations	We compared the supply of new graduates with the projected demand for new employees in an occupation to identify oversupplied occupations. We used the Units of Analysis matrix, developed by the National Occupational Information Coordinating Committee, to determine which instructional programs were linked to occupations for which we had obtained job opening projections. The matrix identifies over 200 occupational clusters, or groups, of one or more occupations with similar duties and training requirements. The matrix also links the roughly 1,000 instructional programs identified in the IPEDS graduates data to an occupational cluster. We used IPEDS information on program graduates to identify the clusters taught at proprietary schools. We excluded 10 occupational clusters ranging from psychology to legal services because more than half their graduates received baccalaureate or advanced degrees. By comparing projected job openings with new graduates trained for jobs in clusters, we identified occupations with surplus labor supply. For this report, we defined surplus labor supply as two or more graduates for each projected job opening in an occupation. After discussions with an expert on the Units of Analysis matrix, we limited our analysis to those occupations with the strongest relationship between training and the occupation. The matrix classifies occupational clusters into three categories, depending on the directness of the link between training and occupational employment. "A" cluster occupations—which we analyzed—have specific training programs that lead directly to employment in an occupation. For these occupations, an
	individual would be unlikely to enter the occupation without having received the "A" cluster training. Such training would also be unlikely to prepare someone for employment in a different occupation. For "B" and "C" clusters, the link between training and employment is less direct. Either the skills mastered are more transferable or the occupation draws new employees from a wide variety of sources—or both in the case of "C" cluster occupations.
Linking Financial Aid Information to Occupations	We used IPEDS information on institutional characteristics to associate students with training programs. For schools offering more than one occupational program, we assumed that the amount of aid being used for each occupation was proportional to the percentage of its graduates in that program. For example, if 20 percent of the graduates of a proprietary school studied air-conditioning repair and 100 students spent \$100,000 in student aid at the school, we assumed that \$20,000 in aid came from the 20 air-conditioning repair students. Our estimates of federal financial aid

dollars and student financial aid recipients associated with oversupplied occupations are sensitive to this assumption because more than 78 percent of the financial aid going to train students in oversupplied occupations went to schools with multiple occupational training programs.

Detailed State-Level Results: Analysis of Financial Aid to Oversupplied Occupations

This appendix presents detailed results of our analysis of fiscal year 1995 financial aid⁸ to oversupplied occupations in 12 states. (See tables II.1 to II.12.) We calculated the supply and demand ratio using data from the Integrated Postsecondary Education Data System on program graduates from the Department of Education and job opening projections provided by each state. We estimated title IV aid and the number of student aid recipients by associating Education's student aid data with proprietary schools by program (numbers may not add to totals due to rounding).

Table II.1: Supply and DemandAnalysis for Arizona

Occuration	Supply/demand	Title IV aid to occupation	Number of student aid
Occupation	ratio	(millions)	recipients
Occupational therapy assisting	34:1	\$0.6	420
Musical instrument repair	29:1	0.1	40
Optical technology	11:1	0.6	295
Respiratory therapy	7:1	1.1	664
Miscellaneous health services	6:1	1.0	442
Air-conditioning/heating installation/repair	6:1	5.8	1,925
All other engineering technology	5:1	0.5	88
Barbering/cosmetology	5:1	2.7	1,308
Electromechanical equipment/instrument production/repair	5:1	0.7	192
Drafting	4:1	6.9	1,855
Surgical technology	4:1	0.6	224
Legal assisting	3:1	2.1	610
Radiologic technology	3:1	0.8	348
Electrical/electronic technology	3:1	22.1	4,518
Medical secretarial	3:1	1.6	936
Total	4:1	\$47.2	13,864

⁸Financial aid includes grants and loans disbursed through the Federal Pell Grant Program, the Federal Family Educational Loan Program, and the William D. Ford Direct Loan Program.

Table II.2: Supply and Demand Analysis for California

Analysis for California	Occupation	Supply/demand ratio	Title IV aid to occupation (millions)	Number of student aid recipients
	Appliance/equipment repair	42:1	\$1.1	310
	Barbering/cosmetology	7:1	11.6	7,662
	Optical technology	5:1	5.1	3,158
	Legal assisting	4:1	4.7	1,477
	Miscellaneous health services	3:1	8.9	3,615
	Pharmacy support	2:1	4.7	1,682
	Total	5:1	\$36.1	17,904
Table II.3: Supply and Demand Analysis for Florida	Occupation	Supply/demand ratio	Title IV aid to occupation (millions)	Number of student aid recipients
	Airplane piloting	8:1	\$2.3	222
	Legal assisting	4:1	4.6	1,535
	Respiratory therapy	3:1	2.3	686
	Electrical/electronic technology	3:1	15.9	3,829
	Barbering/cosmetology	2:1	6.6	4,464
	Total	3:1	\$31.7	10,736
Table II.4: Supply and Demand Analysis for Illinois	Occupation	Supply/demand ratio	Title IV aid to occupation (millions)	Number of student aid recipients
	Appliance/equipment repair	11:1	\$0.4	205
	Barbering/cosmetology	3:1	11.7	6,942

1.5

\$13.6

584

7,731

3:1

3:1

Total

Air-conditioning/heating installation/repair

Table II.5: Supply and Demand Analysis for Indiana

Analysis for Indiana	Occupation	Supply/demand ratio	Title IV aid to occupation (millions)	Number of student aid recipients
	Electrical/electronic technology	12:1	\$18.1	10,016
	All other engineering technology	11:1	9.5	3,870
	Appliance/equipment repair	6:1	1.4	401
	Legal assisting	5:1	0.4	130
	Barbering/cosmetology	4:1	3.6	1,944
	Miscellaneous health services	3:1	0.1	33
	Total	6:1	\$33.2	16,395
Table II.6: Supply and Demand Analysis for New Jersey			Title IV aid to	Number of
	Occupation	Supply/demand ratio	occupation (millions)	student aid recipients
	Appliance/equipment repair	6:1	\$1.1	375
	Electrical/electronic technology	4:1	15.0	4,274
	Legal assisting	2:1	0.6	317
	Total	4:1	\$16.8	4,966
Table II.7: Supply and Demand Analysis for New York	Occupation	Supply/demand ratio	Title IV aid to occupation (millions)	Number of student aid recipients
	Appliance/equipment repair	9:1	\$1.0	349
	Miscellaneous health services	5:1	4.9	1,400
	Optical technology	5:1	0.9	535
	All other engineering technology	5:1	0.1	94
	Electrical/electronic technology	5:1	7.5	4,235
	Barbering/cosmetology	3:1	14.7	6,784
	Respiratory therapy	2:1	0.3	106
	Total	4:1	\$29.4	13,502

Table II.8: Supply and DemandAnalysis for Oregon

Occupation	Supply/demand ratio	Title IV aid to occupation (millions)	Number of student aid recipients
Barbering/cosmetology	7:1	\$3.7	1,337
Legal assisting	4:1	0.4	116
Medical secretarial	4:1	1.3	530
Pharmacy support	3:1	0.7	277
Electromechanical equipment/instrument production/repair	2:1	0.7	133
Respiratory therapy	2:1	0.1	44
Total	4:1	\$6.9	2,437

Table II.9: Supply and DemandAnalysis for Pennsylvania

Occupation	Supply/demand ratio	Title IV aid to occupation (millions)	Number of student aid recipients
Appliance/equipment repair	31:1	\$0.4	142
Carpentry	11:1	0.3	56
All other engineering technology	10:1	0.2	50
Legal assisting	6:1	3.1	1,167
Barbering/cosmetology	6:1	14.1	7,383
Miscellaneous health services	5:1	1.9	667
Air-conditioning/heating installation/repair	3:1	2.7	917
Computer/business machine production/repair	3:1	2.2	684
Legal secretarial	3:1	1.0	350
Stenography	2:1	0.4	132
Respiratory therapy	2:1	0.3	115
Total	4:1	\$26.7	11,663

Table II.10: Supply and DemandAnalysis for South Carolina

Occupation	Supply/demand ratio	Title IV aid to occupation (millions)	Number of student aid recipients
Barbering/cosmetology	7:1	\$2.3	1,591
Aircraft mechanics	6:1	0.1	27
Airplane piloting	4:1	0.1	28
Electrical/electronic technology	3:1	0.4	137
Total	5:1	\$3.0	1,783

Table II.11: Supply and DemandAnalysis for Texas

Occupation	Supply/demand ratio	Title IV aid to occupation (millions)	Number of student aid recipients
Barbering/cosmetology	4:1	\$14.8	8,695
Legal assisting	3:1	2.7	1,067
Appliance/equipment repair	3:1	0.3	106
All other engineering technology	2:1	2.5	471
Total	3:1	\$20.3	10,339

Table II.12: Supply and DemandAnalysis for Washington

Occupation	Supply/demand ratio	Title IV aid to occupation (millions)	Number of student aid recipients
Appliance/equipment repair	14:1	\$1.0	259
Electrical/electronic technology	2:1	7.6	742
Total	3:1	\$8.6	1,001

Comments From the Department of Education



Appendix IV GAO Contacts and Staff Acknowledgments

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