



SUCCESS FOR ALL

ASSESSING THE EDUCATIONAL AND ECONOMIC OUTCOMES OF CCC SPECIAL POPULATION STUDENTS

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JULY 16, 2004

PREPARED FOR:
THE JOINT SPECIAL POPULATIONS ADVISORY COMMITTEE
UNDER CONTRACT WITH Foothill ASSOCIATES

This project was funded by the Carl D. Perkins Vocational and Technical Education Act (VTEA) of 1998 Title IB Grant Number 03-0386 awarded to the Yosemite Community College District and administered by the California Community Colleges Chancellor's Office

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Executive Summary

The Carl D. Perkins Vocational and Technical Education Act of 1998 defines the six special population categories as Non-Traditional Occupation, Economically Disadvantaged, Limited English Proficient, Students with Disabilities, Single Parents, and Displaced Homemakers. The purpose of this study is to evaluate and assess the educational, employment and earnings outcomes of special population students in the California community college system. Student records from the California Community Colleges Chancellor's Office Management Information System (MIS) enrollment record database were linked to the California Employment Development Department state unemployment insurance (UI) wage record database by social security number. This combined data was then used to track the education, employment, and earnings outcomes of 48,736 special population and non-special population students across the 109 California community college campuses who completed at least 12 units of vocational credit coursework before exiting college in the academic year 1999-2000. Non-special population students are defined in this study as students who do not fall into any of the special population groups.

Sample and Comparison Groups

Out of the total sample of 48,736 exiting students:

- 52% were found in one or more of the six special population groups.
- 42% are considered to be economically disadvantaged
- 5% are students with disabilities.
- 9% enrolled in or were identified as limited English proficient.
- 16% of responding students identified themselves as single parents.
- 6% of responding students identified themselves as displaced homemakers.
- About 9% of the exiting cohort were in occupational training programs defined as non-traditional for their gender.

For purposes of this study, special population students who are in five special population groups (economically disadvantaged, LEP, single parents, and displaced homemakers, and students with disabilities) are grouped together and looked at in comparison to students who are not in any of those five groups. Non-traditional occupation (NTO) women and men were analyzed separately from the other five special population groups, in comparison to traditional occupation (TO) women and men.

Comparative Demographics of Special Population and Non-Special Population Students

- Compared to non-special population students, special population students were more likely to be women, non-white, and to have entered college without a high school diploma. However, the average age of exiting special population and non-special population students was similar (31).
- Male and female special population students were fairly similar in their race/ethnic composition and education at entry. However, female special population students were slightly older than male special population students (31 versus 30).
- NTO women were similar to TO women in terms of race/ethnicity, age, and education at entry. NTO men, on the other hand, were a few years older on average than TO men (32 versus 29), and were less likely to have had a high school diploma at entry.

Overlap Among Special Population Groups

There is considerable overlap among the six special population groups. Of the exiting special population students, 69% were just in one special population group. Another 25% were in two groups, and 5% were in three groups. The remaining 1% were found in 5-6 groups. It is important to note that the vast majority of students who fall into at least one of the 5 main special population groups are economically disadvantaged (87%), and that additionally 44% of students who are NTO are considered to be economically disadvantaged. These figures will be discussed in detail below.

- **Economically Disadvantaged**

About one third of economically disadvantaged students (37%) are in at least one other special population group. About one-fifth of economically disadvantaged students are single parents. LEP, disabled, displaced homemakers and NTO students each comprise approximately 10% of the economically disadvantaged student population. Economically disadvantaged women are considerably more likely to be single parents than economically disadvantaged men.

- **Limited English Proficient**

About two-thirds of LEP students are in at least one other special population group. More than half are economically disadvantaged.

- **Disabled Students**

- Nearly three quarters of disabled students are in at least one other special population group.
- Two-thirds are economically disadvantaged and 1/5 are single parents. Ten percent are displaced homemakers.
- Disabled women are more likely than disabled men to be economically disadvantaged.
- Disabled women are about as likely as non-disabled women are to enter NTO fields, while disabled men are more likely than non-disabled men to be NTO.

- **Single Parents**

- The majority of single parents are economically disadvantaged (over 80%).
- Female single parents are much more likely than male single parents to be in at least one other special population group
- Female single parents are considerably more likely than single parent men to be economically disadvantaged (83% vs. 62%).
- Among displaced homemakers, both men and women have similar percentages who are economically disadvantaged.

- **Displaced Homemakers**

- The majority of displaced homemakers are economically disadvantaged.
- Displaced homemaker men and women who are economically disadvantaged have similar percentages.
- Displaced homemaker women are more likely to be single parents than displaced homemaker men.

- **Non-Traditional Occupation (NTO) and Traditional Occupation (TO) Students**

The distribution of TO and NTO students in other special population groups is similar. However, NTO women are less likely to be economically disadvantaged than women in traditional occupation fields and NTO men are more likely to be economically disadvantaged than men in TO programs.

Educational Attainment

- **Women**

- In general, special population women were fairly similar to non-special population women in overall educational attainment.
- Among special population women, disabled women were considerably more likely to leave with an Associate degree than the other four special populations, while LEP women are the most likely to leave with a certificate.

- **Men**

- Male special population students are more likely than male non-special population students to leave with an Associate degree, and less likely to leave with just 12-23.99 units but no new credential.
- Among special population men, disabled men are also the most likely to receive Associate degrees, however the spread between the other groups is somewhat closer. There is a more even distribution among men receiving certificates than there is for women.

- **Non-Traditional Occupation (NTO) and Traditional Occupation (TO) Students**

- NTO women are less likely to exit with an Associate degree than TO women, while NTO men are more likely to exit with an Associate degree than TO men.
- NTO women are more likely to leave with an Associate degree than TO men, but NTO men and TO women are equally likely to leave with an Associate degree.

Program Type

The most popular programs for women were: Nursing/Dental, Lifespan^{*}, Business, Computer Information Sciences (CIS), Secretarial, Cosmetology, Emergency Medical Technician (EMT), and Administration of Justice. Among men, the most popular programs were Engineering, Business, Computer Information Sciences, Administration of Justice (AOJ), Fire Control, EMT, and Nursing/Dental.

^{*} Lifespan classes cover nature, functions and significance of human relationships in the family and society; and the study of individuals and their physical, mental, emotional, and social growth and development. Includes classes in child development, exceptional children (special needs), gerontology, and nanny training (California Community Colleges Taxonomy of Programs Reference Manual, 5th edition)

- **Women**

Special population women who leave school with Associate degrees have fairly similar distribution of programs as non-special population women with Associate degrees. For AS degree holders, one-third are in nursing; for AA degree holders there is a more even distribution between Business, Lifespan, and CIS.

- **Men**

Special population men who leave with Associate degrees also have a fairly similar distribution of programs as non-special population men who leave with the same academic credential. AS degree holders are likely to be in engineering, business, and CIS, while AA degree holders are likely to be in business, CIS, and AOJ.

- **Non-Traditional Occupation (NTO) and Traditional Occupation (TO) Women**

- NTO women are most likely to be in agriculture, engineering, and AOJ programs. However, the shorter the certificate, the greater the percentage of NTO in AOJ, and the smaller the percentage of women in engineering.
- TO women are most likely to be in nursing/dental, lifespan, business, secretarial, and cosmetology programs. Certificates shorter than 18 units in length are heavily dominated by lifespan programs.

- **Non-Traditional Occupation (NTO) and Traditional Occupation (TO) Men**

- NTO men are most likely to be in nursing/dental, business, and secretarial programs. The shorter the certificate, the greater the proportion of NTO men in business programs and the smaller the proportion of NTO men in nursing programs. NTO men who leave with a number of units completed but not a new credential have primarily taken business coursework.
- TO men are most likely to be in fire control, engineering, and AOJ programs. The shorter the certificate, less likely TO men are to be in engineering, with exception of certificates that are less than 6 units in length.

Employment Outcomes

- The majority of special population and non-special population students are employed both the first and second year after exiting college. However, special population students are less

likely than non-special population students to be employed one year *prior* to attending college.

- NTO women and TO men have higher three period employment rates (were employed prior to attending college as well as the first and second year after exiting college) than TO women and NTO men.
- Special population women clearly increase year-round employment over time, and also substantially narrow the gap in employment rates with non-special population women. There is a similar trend for special population men, although the gap in employment rates between special population men and non-special population men does not close as much as it does among women.
- There is a positive association between educational attainment and post college year-round employment for women – the more education women attain, the more likely they are to be employed year-round. However, overall, this positive association is not as strong for men. Interestingly, TO women and NTO men have positive association between educational attainment and year-round employment, however NTO women and TO men do not. This indicates that there is possibly something about the program itself, or the type of employment (i.e. self-employment) that these programs lead to that affects year-round employment patterns, rather than amount of education or gender.

Women's Earnings Outcomes

- In 1999-2000, special population women who exited college substantially increased their median annual earnings after leaving college. Overall, median annual earnings rose from \$7,133 to \$20,144 between the year prior to college entry and the second year out (182%).
- Special population women with 60+ unit certificates had the greatest median annual earnings after two years in the labor market (\$33,610) and special population women who earned AS degrees earned considerably more than those with AA or shorter length certificates. Thus the AS degree and 60+ unit certificate appear to reap the highest gain for special population women.
- There was a fairly close range in post-college earnings among women in the different special population categories. However, women with disabilities have the lowest earnings.
- Special population women have lower earnings than non-special population women both before and after college. However, the percentage gap in median annual earnings between

the two decreases over time. Among women in all programs and of all educational attainment levels, the percentage gap in median annual earnings between special population and non-special population women decreased from 122% prior to attending college to 36% the second year out.

- Special population women in Nursing/Dental programs earn more than other popular women's fields, even after accounting for the amount of education received. Special population women in Nursing/Dental substantially close the earnings gap with non-special population women in Nursing/Dental over time. However, larger gaps remain between special population and non-special population women in Business, CIS, and Secretarial programs.

Men's Earnings Outcomes

- Special population men also increase median annual earnings from before to after college (from \$9,561 the year prior to attending, to \$21,467 the first year out, and \$23,763 the second year out (a 149% increase from the year prior to college to the second year out of school).
- As with special population women, special population men with 60+ unit certificates or AS degrees saw the highest earnings after exit, while special population men with shorter certificates and AA degrees saw lower earnings.
- There is a much wider variation in earnings between different special population groups for men than there is for women. The difference in year two median annual earnings between disabled students and single parent students was \$9,504 for men, which is double the difference in earnings between the same two groups of women (\$4,788). This means that the particular special population group that students are in matters more for men than it does for women.
- After having attended school, special population men also narrow the pre-college earnings gap with their non-special population counterparts. However, data suggests that the gap may not narrow as much for men as it does for women.

Comparative Earnings Outcomes Between Non-Traditional Occupation (NTO) Women and Traditional Occupation (TO) Men

- Contrary to expectations, evidence shows that the earnings gap between NTO women and TO men increases after college exit. While NTO women have higher incomes the first and second year out of college than women in traditionally female careers, they are not increasing their earnings as fast as men in these traditionally male occupations. We do not yet know

what forces could be driving this pattern. One possibility is that in a struggling economy (which was the case during the second year out of school for the cohort) women in non-traditional occupations may be more likely to face decreases in work hours or pay than men due to lack of seniority or other attributes.

- The increasing earnings gap between NTO women and TO men is the narrowest for women holding an AS degree or 18-30 unit certificate.
- Rather than just having a slower increase in earnings, women in Engineering fields undergo a slight decline in earnings from the first to second year out. This decline contributes to the increasing earnings gap with TO men. It is unclear whether this decline is related to the slowdown of the economy during that period or whether the pattern would be maintained in better economic times as well.

Comparative Earnings Outcomes Between Traditional Occupation (TO) Women and Non-Traditional Occupation (NTO) Men

- For all fields and levels of educational attainment, TO women earn less than NTO men both prior to college entrance and after college exit.
- While the gap in median annual earnings between TO women and NTO men drops substantially from pre-college to the first year out of school, the gap does not close very much between the first and second years out of school.

Policy Recommendations

Despite economic, academic, and demographic disadvantages, special population students who receive vocational training in California community colleges are able to successfully narrow the earnings and employment gap relative to non-special population students just one to two years after attending school.

However, among different special population groups, students with disabilities appear to have the lowest economic success after exiting college. Close to 70% of disabled students were considered to be economically disadvantaged while attending school. This undoubtedly contributes to the lower post-college economic success of disabled students. In addition to disabled students, findings from this study also show that an overwhelming proportion of female single parent students are economically disadvantaged while in school (87%). Because of these

findings, it is extremely important to begin to devote additional financial aid, academic support, and other service outreach toward disabled students and single parent women.

Findings from this study show a clear, positive association between educational attainment and steady employment among women in traditionally female dominated occupation programs. Therefore, it may be worthwhile to encourage special population women to pursue longer length certificates or Associate degrees and to provide them the services necessary to pursue and attain that goal.

With the exception of Nursing, earnings of female students in programs traditionally dominated by males are typically higher than women in traditionally female occupational fields. However, data show that economically disadvantaged women are not as likely to go into non-traditional programs as are more economically advantaged women. It therefore may be particularly prudent to aim policies at encouraging economically disadvantaged women to enroll in non-traditional occupation programs.

Despite the relatively higher earnings that women in non-traditional occupations receive, non-traditional occupation women continue to lag behind their male counterparts in traditionally male occupations. The colleges should therefore focus their attention on expanding career education opportunities for non-traditional occupation women.

Currently, special population women who exit from the community college system earn 85% of what men earn two years out of school (\$20,144 versus \$23,763). This is slightly better than the national figure of 78%, but it is still not equal. Encouraging and supporting women's choices of more lucrative high unit requirement credentials would help close the gender earnings gap. In general, administrators and policymakers need to promote and encourage the institutionalization of programs aimed at serving special population students to ensure that these men and women continue to prosper in their careers after college exit.

I. Introduction

Under the Carl D. Perkins Vocational and Technical Education Act (VTEA) of 1998, states became required to address the needs of special population vocational students. Special population students are defined as students who are economically disadvantaged, limited English proficient, disabled, single parents, or displaced homemakers. In addition, students enrolled in programs leading to employment that is not traditional for their gender are also considered to be special population students. States can receive funding under the Perkins Act to track the progress of special population students, and provide additional services to improve their likelihood of success. The purpose of this study is to evaluate and assess the educational, employment and earnings outcomes of special population students in the California community college system. Many of the findings cited within this report are simply observations, but they can be used to assess the expectations of those offering services to those populations and may have implications for outreach efforts.

The remainder of the report is divided into the following sections:

Section II describes the data, sample restrictions, comparison groups, and outcome measures used in the study. Section III describes a few basic demographic characteristics (age, race/ethnicity, gender, and education at entry into college) of each of the special population groups in relation to each other and in relation to non-special population students. Section IV explores the amount of overlap that exists between the different special populations.

Sections V and VI describe educational outcomes in terms of amount of education received (Associate degree, certificate, or 12-24+ units without a new credential), and also look at the distribution of special population groups by program. Section VII looks at employment outcomes, specifically the percentage of exiting students that are employed one or more quarters during three time periods: the year prior to attending college, the first year after exiting college, and the second year after exiting college. In addition, this section ascertains the percentage of students who are employed all four quarters of the year during each of the three periods.

Section VIII looks at earnings outcomes of special population women and men both in relation to each other and in relation to non-special population students. Median annual earnings from the year prior to college entry are contrasted to median annual earnings the first and second years out of school. Earnings outcomes are broken down by educational attainment (credential or number of units earned), and by program type, and are looked at separately for each gender. The final section of the report, section IX, offers some conclusions and policy recommendations.

II. Methodology

The data for this study come from two sources. The first data source is California Community Colleges Chancellor's Office Management Information System (MIS) enrollment record database that tracks students in all 109 California campuses. The second source of data is the California Employment Development Department state unemployment insurance (UI) wage records. Student records from the MIS enrollment record database were linked to the UI wage record database by social security number. This combined data was then used to track the education, employment, and earnings outcomes of 48,736 special population and non-special population students across the 109 California community college campuses who completed at least 12 units of vocational credit coursework¹ before exiting college in the academic year 1999-2000.

Sample Restrictions

This analysis looks at employment and earnings of special population students the year prior to college *entry* and one and two years after college *exit*, in 1999-2000. Year of entry is defined as the most recent academic year a student was recorded enrolled in a community college after at least a two consecutive semester absence. Due to earnings data limitations, the sample is restricted to only students who entered college after fall semester, 1993. A student is defined as exiting if the student left college in 1999-2000 and did not return to any California community college for at least one year. In order to more clearly assess labor market outcomes, the sample is also restricted to students who did not transfer to a four-year California university within two years of exit.

Finally, the sample is restricted only to those who were considered to be vocational students and who left college with either 12 or more credits, an Associate degree, or a certificate ranging from 6 to 60+ units in length. To be considered vocational students, students had to be assigned a vocational program topside, meaning they completed at least 12 units of vocational coursework. After completing 12 vocational units, students may have actually gone on to receive additional credits, degrees or certificates in non-vocational programs. These students are still included in the sample as vocational students.

After these sample restrictions are put in place, a total of 48,736 exiting students remain. These students make up only 7% of the full 1999-2000 exiting cohort. This low percentage is likely due to the way exit has been defined (not returning for a minimum of one year). The vast majority of students who exited in 1999-2000 and did not return for at least a year left with less than 12 units of coursework completed (65%). Additionally, of those who left with more than 12 units or a

certificate, only 20% were considered to be vocational.

Special Population Groups

The primary subjects of inquiry in this report are six special population groups. These are students who have been defined as:

- Non-Traditional Occupation (NTO)
- Economically Disadvantaged
- Disabled
- Displaced Homemakers
- Single Parents
- Limited English Proficient

Out of the total sample of 48,736 exiting students, 52% were found in one or more of the six special population groups. There is some overlap among the special population groups. Of the exiting special population students, 69% were identified in only one special population group. Another 25% were in 2 groups, and 5% were in 3 groups. The remaining 1% were found in 5-6 groups.

Non-Traditional Occupation Programs and Students

Non-traditional occupation (NTO) programs are defined as those programs that are associated with occupations that are comprised 25% or less of one gender. Therefore a woman would be identified as in a NTO program if men made up 75% or more of that occupational field and she would be in a traditional occupation program if women made up 75% or more of that occupational field. Although NTO students may or may not be economically or academically disadvantaged, they are included as a special population group because of the recognition that students in NTO fields may have specific needs and difficulties which must be specially addressed.

The most common concern is for women who are in fields that are heavily dominated by men because while they may face additional barriers, if properly assisted, the economic and professional rewards could be much greater than if they had remained in traditionally female occupations. This study will not only analyze the educational and economic outcomes of women in non-traditional fields, but will also examine data on men who are in fields non-traditional to their gender and men who have chosen a more traditional career path.

As will be discussed later in this section, because of the way educational programs are defined in the MIS database (broad categories), programs can sometimes be designated as both traditional and non-traditional for a particular gender depending on the sub-category of emphasis. Business is one of these broad programs. A woman in a secretarial business program might be considered

traditional, while a woman in an accounting business program might be considered non-traditional. Therefore, it is necessary to select NTO students not only on the basis of their program areas, but also on the basis of whether the program area(s) have been specifically flagged as traditional or non-traditional according to the MIS database.

About 9% of the selected exiting cohort were defined as NTO students and 45% were defined as traditional occupation (TO) students. Forty-seven percent of exiting students did not enroll in courses associated with fields dominated by one gender.

Economically Disadvantaged Students

The definition of economic disadvantage is that the student is either 1) a recipient of or eligible for public assistance (CalWORKs, Supplemental Security Income (SSI), General Assistance, Bureau of Indian Affairs Assistance); 2) a recipient of or eligible for student aid such as Board of Governors grant (BOGG) or Pell grant; 3) is involved with Job Training Partnership Act (JTPA) or Workforce Investment Act (WIA); or 4) has income below the federal poverty line. Economic disadvantage is determined either by student self declaration or by other administrative means. Forty-two percent of the 1999-2000 exiting students were considered to be economically disadvantaged.

Disabled Students

For purposes of this study, students with a variety of disabilities are grouped together. A disability according to the Americans with Disabilities Act is a physical or mental impairment that substantially limits one or more of an individual's major life activities: caring for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.² In this analysis, disabled students are those identified by the college as disabled in the MIS database. To be considered disabled in the database, students must have received some disabled student services at the college or been enrolled in a DSPP special class. Approximately 5% of exiting 1999-2000 students were considered to be disabled.

Limited English Proficient Students

According to the Perkins act, a student is considered to be limited English proficient if he or she 1) was not born in the US or whose native language is a language other than English, 2) comes from environments where a language other than English is dominant, 3) is American Indian or Alaskan native and comes from an environment where the language is other than English and

where this has had a significant impact on his or her English language proficiency, or 4) has difficulty speaking, reading, writing, or understanding English such that the student may be denied the opportunity to learn successfully in classrooms where the language of instruction is English or to participate in society.³ However, for purposes of this study, a student is defined as limited English proficient if he or she has either enrolled in English as a Second Language (ESL) coursework or has been identified as needing ESL coursework. Approximately 9% of exiting students fit this definition.

Single Parent and Displaced Homemaker Students

Single parent students are those who are unmarried or legally separated from a spouse and either have a minor child or children for which they have custody or joint custody, or are pregnant. A displaced homemaker is a student who is 1) an adult; 2) has worked as an adult primarily without remuneration to care for home and family, and for that reason has diminished marketable skills; 3) has been dependent on public assistance or on the income of a relative but is no longer supported by that income; or is a parent whose youngest dependent child will become ineligible to receive assistance within two years of the parent's application for assistance under VTEA; or is unemployed or underemployed and is experiencing difficulty in obtaining any employment or suitable employment as appropriate; or is a criminal offender.⁴

Displaced Homemaker and Single Parent status is collected through supplemental data collection and classroom surveys. Many colleges do not attempt to collect the data at all and in those that do, coverage is often uneven due to faculty participation and student response rates. Although a considerable number of students in the exiting cohort (64%) are missing this information, there is no way of estimating what percentage are actually missing this information and what percentage would be "not displaced homemakers" or "not single parents" because VTEA data is not submitted to MIS for all vocational students. Of the 17,647 exiting students who responded to the survey, 16% identified themselves as single parents and 6% identified themselves as displaced homemakers.

Comparison Groups

Due to limited sample size (and for sake of simplicity) for some outcomes, this study will compare students in a combined special population group with students who do not fall into any one of the special population categories (referred in this report as non-special population students). To handle the overlap between the special population groups, the combined special population group will encompass students who are in one or more special population categories.

The goal of the comparison of special population students to other students is to see how the educational, employment and earnings outcomes of special population students compare with those of more demographically advantaged students who earn similar academic credentials. One would expect to see lower employment and earnings both before college and after college for special population students than for other students, since special population students generally have potentially greater barriers to academic and employment success. The question is to what degree special population students are able to catch up to other students that earn similar academic credentials.

When comparing combined special population and non-special population groups, non-traditional occupation students were removed from the special population combined group in order to analyze the special population and non-special population groups separately by non-traditional occupation or traditional occupation status. The now five special population combination group is restricted to students with some academic or economic disadvantage while the comparison group of non-special population students does not have any disadvantage.

To assess the impact of non-traditional occupation (NTO) programs on the earnings outcomes of men and women, men and women in NTO fields were compared to men and women in traditional occupation (TO) fields. These NTO and TO students comprise a mixture of students who are and are not in the other five special populations.

Comparison Groups:

- Special Population (5) Men/
Non-Special Population Men
- Special Population (5) Women
Non-Special Population Women
- NTO Women /
TO Women
- NTO Men /
TO Men
- NTO Women /
TO Men
- NTO Men /
TO Women

Measuring Education

There are two types of education investigated in this report. The first type is the amount of education a student received in terms of units and degree or certificate completion (educational attainment). Students may fall into one of these attainment categories:

- Associate of Science
- Associate of Arts
- 60+ Unit Certificate
- 30-60 Unit Certificate
- 18-30 Unit Certificate
- 6-18 Unit Certificate
- Less than 6 Unit Certificate
- 24+ Units, no degree or certificate
- 12-23.99 units, no degree or certificate

The second type of education considered is educational program. Educational program is most relevant for students who left with a degree or certificate, although students who left with 12 or more units but no new credential are also assigned to particular programs as well. The number of programs community colleges offer are numerous, however, because of sample size limitations, the programs are grouped into the following broader categories:

- Agriculture/Natural Resources
- Architecture and Environmental Design
- Business and Management⁶
- Secretary/Administrative Assistant
- Communications
- Computer and Information Sciences
- Education
- Engineering
- Fine and Applied Arts
- Nursing & Dental
- EMT
- Other Health
- Consumer Education/Home Economics
- Lifespan⁵
- Law
- Humanities & Foreign Language
- Mathematics & Biological & Physical Science
- Administration of Justice & Military Studies
- Fire Control
- Other Public Affairs and Services
- Social Sciences & Psychology & Library Science
- Cosmetology
- Travel/Tourism & Other Commercial Services
- Interdisciplinary Studies
- General Studies
- Vocational ESL

To assess the impact of non-traditional occupation (NTO) programs on employment and earnings outcomes, this study will concentrate on NTO women's programs in Engineering, Administration of Justice (AOJ) and Military Studies (which, conversely, are traditional for men) and will focus on NTO men in Nursing (which is a traditional field for women).⁷ However, the study will also take into account all traditional and NTO students combined, who could be in a variety of programs.

Measuring Employment Outcomes

The California Employment Development Department (EDD) Quarterly wage data will be used to define employment. If a student has non-zero wages that quarter, they are considered employed that quarter, if they have zero earnings or are not in the EDD file, they are counted as being unemployed that quarter. *Annual* employment rates are defined in two ways. The first way to say that someone is employed during the year is if they have non-zero earnings in one or more quarters during the year. A second way to define annual employment is if a person has non-zero earnings in all four quarters of the year. Because the EDD data does not contain information on full-time or part-time work, or hours worked per week, four-quarter (or year-round) employment data will be calculated to determine how well exiting students are able to increase “steady” employment over time. A caveat to using the EDD data is that it does not include the self-employed, military, and those in federal or postal service.

Measuring Median Annual Earnings

Annual earnings are calculated as the sum of non-zero earnings in one or more quarters of the year based on the *median* annual earnings (the annual amount in the middle of the earnings distribution) of each group. The median is used instead of the mean (average) to avoid bias due to a few people with very large or small earnings. Median annual earnings are adjusted to 2000-2001 dollars using the California Consumer Price Index.

The median annual earnings of students the year just before they were first enrolled in school, the median annual earnings of students the first year after exit, and the median annual earnings of students the second year after exit, were used to compare changes in earnings from before college entry to after college exit. Students therefore had pre-college earnings in different years, depending on when they started college, but they had the same years of post-college earnings (2000-2001 being the first year out of school and 2001-2002 being the second year out of school).

Measuring the Impact of Community College on Employment and Earnings

In order to assess the impact of community college education on employment and earnings, median annual earnings of students the year before they came to school were compared to median annual earnings of students the first and second years after they exited school. To assess earnings outcomes and track changes over time, only students who were employed during all three periods were used in study.

When assessing improvement in economic outcomes by educational attainment, it is important to note that those who choose to come to college may have a greater advantage in the labor market even without further schooling simply because of other characteristics (such as motivation, aptitude and a combination of other demographic characteristics) that are also associated with school attendance and completion, not because of the education they attained in school (a “self-selection” effect). Although the MIS database is somewhat limited, future research should try to take more of these factors into account when looking at employment and earnings outcomes.

Controlling for Background Characteristics

All educational, employment, and earnings outcomes are assessed separately for women and men since there is a large difference in program selection, labor market participation, and earnings between men and women. While this separation cuts sample size down considerably in assessing certain outcomes, it is necessary for a more balanced analysis. In future research, statistical modeling should be employed to assess outcomes while simultaneously controlling for multiple demographic characteristics such as gender, ethnicity, age, and education at entry into college.

III. Demographics

Five Special Populations – Combined

Of the 23,453 exiting special population students, 64% were women. Sixty-three percent were non-white and 13% had come to college without a high school diploma. Non-special population students who exited during the same period had a lower percentage of women (48%), minority students (46%), and those who entered without a high school diploma (9%). However, the average age of exiting special population and non-special population students was similar (31) (See Table 3-1, p.A-1 of Appendix).

Male and female special population students were fairly similar in their race/ethnic composition and education at entry. Male special population students were slightly more likely to be Asian than female special population students (18% vs. 13%). On average, female special population students were slightly older than male special population students (31 versus 30). This age difference between women and men was similar among non-special population students as well (average age of non-special population women was 32 versus 30 for non-special population men) (See Figures 3-1 and 3-2).

Figure 3-1

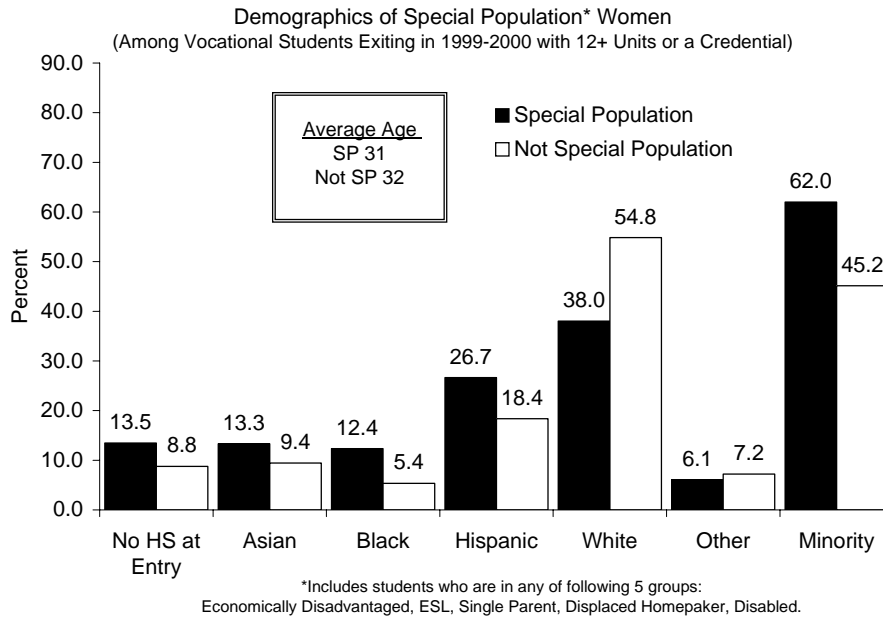
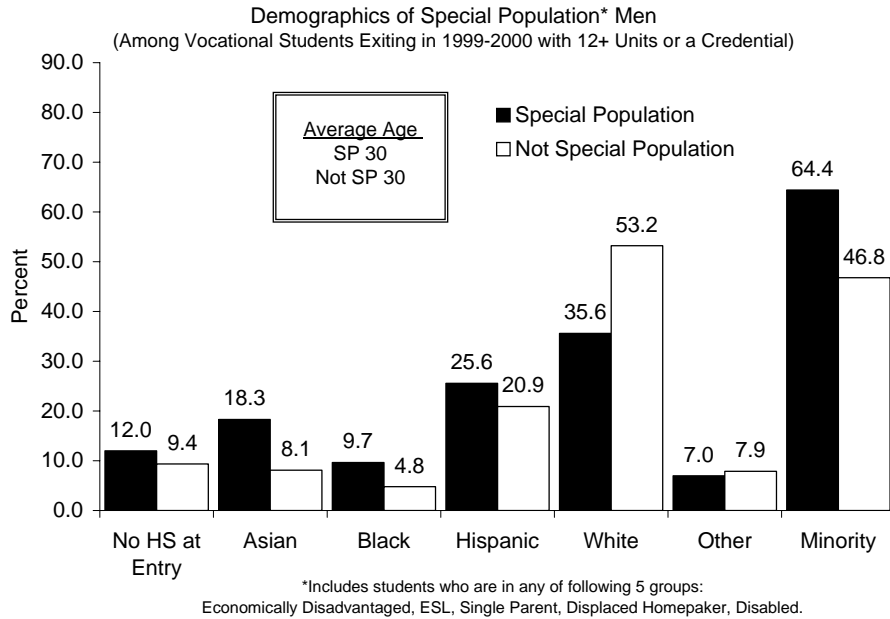


Figure 3-2



Economically Disadvantaged Students

Like the overall group of special population students, economically disadvantaged students had a greater percentage of women and racial/ethnic minorities than exiting students who were not economically disadvantaged. They were also less likely to have a high school diploma at entry into college. Approximately 27% of economically disadvantaged students were Hispanic, 12.5% were African American, and 12.4 % were Asian. Economically disadvantaged students were also somewhat younger on average than exiting students who were not economically disadvantaged (30 vs. 31) (See Table 3-1, p.A-1 of Appendix). There were no substantial differences between economically disadvantaged women and men in terms of race/ethnicity. Economically disadvantaged men were slightly more likely to be Asian and economically disadvantaged women were more likely to be African-American. Economically disadvantaged women were somewhat older on average than economically disadvantaged men and were also somewhat more likely to have had a high school diploma at entry into college (14% for women versus 12% for men) (See Tables 3-2 and 3-3, p.A-2 and A-3 of Appendix).

Limited English Proficient Students

Exiting students who had enrolled in ESL or were identified as needing ESL were (not surprisingly) overwhelmingly non-white (82%). Asians were the primary racial/ethnic group (46%), followed by Hispanics (26%). Because the sample we are looking at is students who took at least 12 units of vocational coursework or left with a degree or certificate, the education at

entry for LEP students is relatively high – only 14% came in without a high school diploma, 80% had a high school diploma, and 6% had missing data on that measure. As with the other special populations groups, about two-thirds (63%) of exiting LEP students were women (See Table 3-1, p.A-1 of Appendix).

LEP men and women showed similar trends as the other special population groups – men slightly more likely to be Asian (50% versus 44%) and women slightly more likely to have a high school diploma at entry (15% vs. 13%). Unlike the other special population groups, LEP women were substantially more likely to be Hispanic than LEP men (29% vs. 21%) (See Tables 3-2 and 3-3, p. A-2 and A-3 of Appendix).

Disabled Students

Disabled students are older on average than non-disabled students and, unlike many other special population groups, are more likely to be white than their non-disabled counterparts. Only 57% of disabled students are white, compared to only 45% of non-disabled students. Disabled students have a similar proportion of women as the other special populations (62%). Disabled women are fairly similar to disabled men in terms of racial background (See Tables 3-1, 3-2, 3-3, p.A-1 to A-3 of Appendix).

Single Parent Students

Exiting single parent students are 82% female and 61% non-white. In comparison, exiting students who are not single parents are only 57% female (a large difference), however the racial/ethnic composition of non-single parent students is remarkably similar to single parent students (also 61% non-white). While single parent and non-single parent students have similar percentages of white and Hispanic students, the percentages of Asian and African American students are considerably different. Only 7% of single parents are Asian compared to 17% of non-single parents, and while 19% of single parents are African American, only 9% of non-single parents are African American.

Single parents are more likely to have entered college without a high school degree than non-single parents. Even when looking at men and women separately, the difference between single parent and non-single parents in the percentage without a high school degree at entry remains (See Tables 3-1, 3-2, 3-3, p.A-1 to A-3 of Appendix).

Displaced Homemaker Students

Like single parent students, women make up the majority of displaced homemakers (76%), and nearly 60% of displaced homemakers are non-white. Displaced homemakers are older on average than students who are not displaced homemakers, however they are fairly similar in terms of education at entry and race/ethnicity. When compared to non-displaced homemakers, displaced homemakers are slightly more likely to be white and slightly less likely to be Asian. Although there were very few men in this category, there were some interesting differences between male and female displaced homemakers. A greater percentage of male displaced homemakers were non-white than female displaced homemakers (70% vs. 55%) and female displaced homemakers were considerably older on average than male displaced homemakers (36 vs. 33) (See Tables 3-1, 3-2, 3-3, p.A-1 to A-3 of Appendix).

Non-Traditional Occupation (NTO) Students

Non-traditional occupation (NTO) women were similar to traditional occupation (TO) women in terms of race/ethnicity, age, and education at entry. NTO men, on the other hand, were a few years older on average than TO men (32 versus 29), and were less likely to have had a high school diploma at entry than men in TO programs (9% versus 12%) (See Figures 3-3 and 3-4).

Figure 3-3

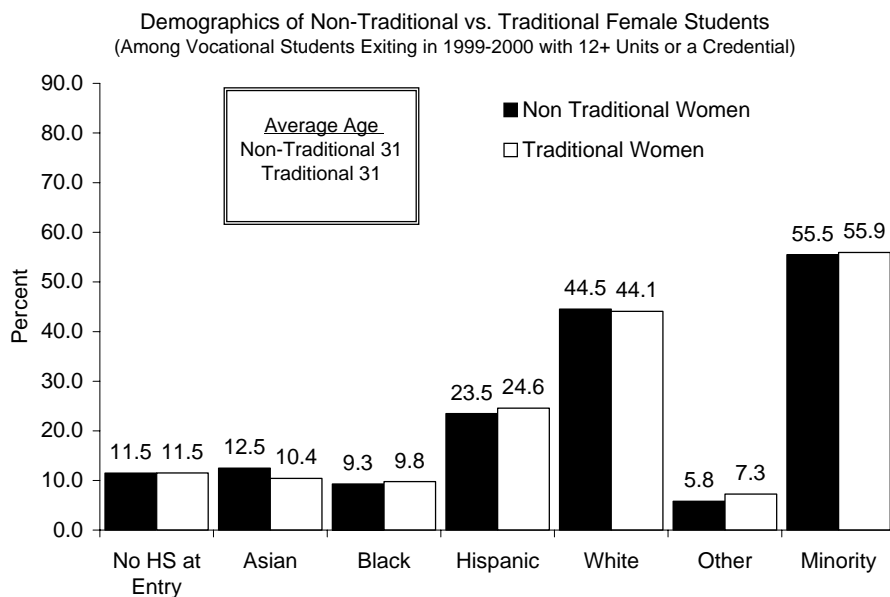
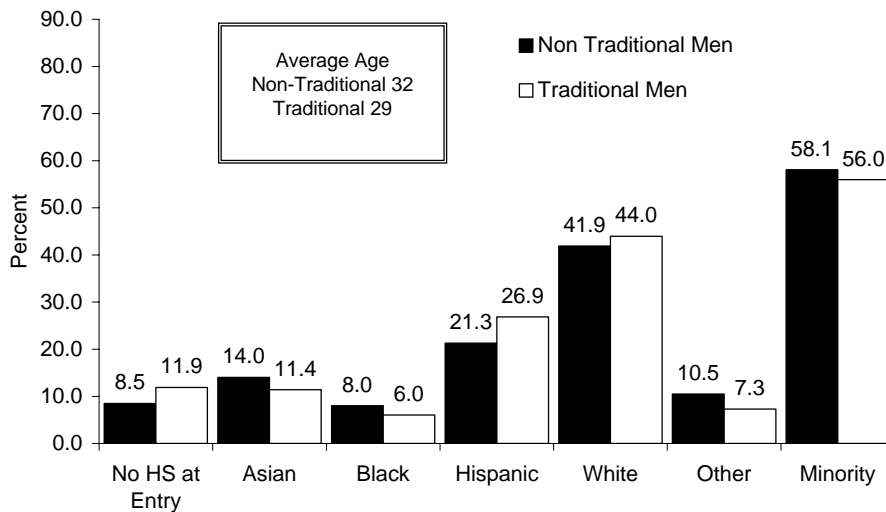


Figure 3-4

Demographics of Non-Traditional vs. Traditional Male Students
(Among Vocational Students Exiting in 1999-2000 with 12+ Units or a Credential)



IV. Overlap Among Special Population Groups

As mentioned earlier in the report, there is considerable overlap among the six special population groups. The following sections describe the percentage of each of the six groups that are in other special populations. It is important to note that the vast majority of students who fall into at least one of the 5 main special population categories are economically disadvantaged (87%), and that additionally 44% of students who are in non-traditional occupation (NTO) programs are considered to be economically disadvantaged. These figures will be discussed in detail below.

Economically Disadvantaged Students

Economically disadvantaged students overall are as likely as non-economically disadvantaged students to be in NTO programs (9% versus 8%). However, they are more likely than non-economically disadvantaged students to be LEP, disabled, single parents and displaced homemakers (See Table 4-1).

Table 4-1

Percentage of Econ. Disad. and Non-Econ. Disad. Students
In Other Special Population Groups

	Econ. Disad.			Not Econ. Disad.		
	All	F	M	All	F	M
	20307	13196	7062	28429	14034	14316
% Non-Traditional	9.1	8.2	10.7	8.4	8.7	8.2
% Traditional	47.6	48.6	46.1	42.3	38.4	46.4
% LEP	12.4	12.4	12.4	6.7	8.1	5.3
% Disabled	7.5	7.4	7.6	2.4	2.8	2.1
% Single Parent	20.2	26.3	8.2	7.7	9.0	6.2
% Displ. Home.	7.3	8.4	5.1	2.9	4.3	1.4
% In 1+ other groups	36.8	39.1	32.6	18.5	21.1	15.9

The data also show that compared to economically disadvantaged men, economically disadvantaged women are:

- Somewhat more likely to be found in at least one other special population group.
- Just as likely to be LEP or disabled.
- Considerably more likely to be single parents (26% versus 8%).
- Somewhat more likely to be displaced homemakers (8% versus 5%).

Compared non non-economically disadvantaged women, economically disadvantaged women are:

- Similar in terms of percentage in NTO coursework.
- More likely to be LEP, disabled, single parents, and displaced homemakers.

These general trends hold true for economically disadvantaged and non-economically disadvantaged men as well, although economically disadvantaged men are somewhat more likely than non-economically disadvantaged men to be in NTO fields (11% versus 8%).

LEP Students

Both LEP women and men are more likely to be economically disadvantaged than their non-LEP counterparts. In addition, LEP students are less likely than non-LEP students to be disabled or single parents, and are slightly less likely to be displaced homemakers (see Table 4-2 below).

Table 4-2

Percentage of LEP and Non-LEP Students
In Other Special Population Groups

	LEP			Not LEP		
	All	F	M	All	F	M
	4413	2768	1631	44323	24462	19747
% Non-Traditional	8.7	7.4	11.0	8.7	8.6	8.9
% Traditional	44.3	44.5	44.3	44.5	43.2	46.4
% Econ. Disad.	57.0	59.1	53.5	40.1	47.3	31.3
% Disabled	2.6	2.8	2.4	4.7	5.3	4.1
% Single Parent	7.2	9.1	3.6	17.1	23.1	7.8
% Displ. Home.	3.9	4.3	3.4	6.1	7.7	3.6
% In 1+ other groups	62.0	63.2	60.1	47.7	54.7	39.0

Compared to LEP men, LEP women are:

- Only slightly more likely to be economically disadvantaged (59% versus 54%),
- Similar in terms of disability.
- Somewhat less likely to be in NTO fields (7% versus 11%).

In comparison to non-LEP Women, LEP women are:

- More likely to be economically disadvantaged.
- Less likely to be disabled or single parents.

This pattern holds true between non-LEP men and LEP men as well. Interestingly, there is a much larger gap between LEP and non-LEP men in the percentage found in at least one other special population than there is between LEP and non-LEP women (21.1 versus 8.5 percentage points).

Students with a Disability

Students with a disability are more likely to be economically disadvantaged (69% versus 40%) and more likely to be single parents than their non-disabled counterparts. However, they are less likely than non-disabled students to be enrolled in ESL or identified as needing ESL (See Table 4-3 below).

Table 4-3

Percentage of Disabled and Non-Disabled Students
In Other Special Population Groups

	Disabled			Not Disabled		
	All	F	M	All	F	M
	2213	2768	840	46523	24462	20538
% Non-Traditional	9.5	7.0	13.7	8.7	8.5	8.9
% Traditional	39.8	41.9	36.4	44.7	43.4	46.7
% Econ. Disad.	68.7	71.6	63.8	40.4	47.2	31.8
% LEP	5.2	5.6	4.6	9.2	10.4	7.8
% Single Parent	22.8	30.5	10.7	15.4	20.6	7.1
% Displ. Home.	9.5	12.6	4.6	5.6	6.9	3.5
% In 1+ other groups	73.2	74.9	70.5	50.2	57.2	41.4

The data shows that in comparison to men with a disability, women with a disability are:

- More likely to be economically disadvantaged (72% vs. 64%).
- More likely to be single parents and displaced homemakers.
- Only slightly more likely to be in at least one other special population group (75% vs. 71%).
- Two-times less likely to be in NTO fields.

Men with a disability are more likely to be NTO than are non-disabled men, while non-disabled and disabled women are fairly similar (7% vs. 8.5%). Disabled and non-disabled women are more similar in terms of being in NTO fields than are disabled and non-disabled men.

Single Parent Students

Compared to non-single parents, single parent students are just as likely to be enrolled in NTO coursework, and less likely to be limited English proficient. However, single parent students are much more likely to be economically disadvantaged (83% vs. 62%), are more likely to be displaced homemakers (17% vs. 4%), and are slightly more likely to be disabled.

Table 4-4

Percentage of Single Parent and Non-Single Parent
In Other Special Population Groups

	Single Parent			Not Single Parent		
	All	F	M	All	F	M
% Non-Traditional	9.5	9.4	10.0	9.2	8.7	9.9
% Traditional	52.1	52.1	52.4	46.0	44.7	47.8
% Econ. Disad.	83.2	87.4	63.8	62.0	65.8	56.8
% LEP	5.9	5.9	5.8	14.3	15.7	12.2
% Disabled	8.3	8.2	8.4	5.3	5.1	5.6
% Displ. Home.	16.8	16.9	16.4	3.7	4.6	2.5
% In 1+ other groups	86.8	90.1	72.0	70.7	74.7	65.4

In comparison to single parent men, single parent women are:

- Much more likely than male single parents to be in at least one other special population group (90% vs. 72%).
- More likely to be economically disadvantaged. While 87% of single parent women are economically disadvantaged, only 64% of single parent men are economically disadvantaged. However, single parent men and women are similar in terms of percentage LEP, disabled, displaced homemakers, and percentage in NTO programs.

The difference between single parent women and men in this area is also reflected in the much larger percentage gap between single parent and non-single parent women who are considered economically disadvantaged than between single parent and non-single parent men who are considered economically disadvantaged. Single parent men are much closer to non-single parent men in terms of economic disadvantage (a difference of 7 percentage points), than single parent women are to non-single parent women (a difference of 22 percentage points).

Displaced Homemaker Students

Displaced Homemakers are much more likely than non-displaced homemakers to be single parents and economically disadvantaged. In addition, they are also somewhat more likely to be disabled. On the other hand, displaced homemakers are less likely to have limited English proficiency, and are just as likely to be enrolled in NTO coursework (See Table 4-5).

Table 4-5

Percentage of Displ. Home. and Not Displ. Home.
In Other Special Population Groups

	Displ. Home.			Not Displ. Home.		
	All	F	M	All	F	M
	1021	779	241	16626	10032	6571
% Non-Traditional	8.6	9.1	7.1	9.3	8.8	10.0
% Traditional	53.3	53.7	52.3	46.5	45.7	48.0
% Econ. Disad.	82.6	82.5	82.6	64.3	69.5	56.4
% LEP	8.8	8.1	11.2	13.2	14.1	11.8
% Disabled	9.4	10.0	7.5	5.5	5.4	5.7
% Single Parent	46.0	49.7	34.0	14.0	19.0	6.4
% In 1+ other groups	87.1	87.3	86.3	73.9	78.5	66.7

Non-Traditional Occupation (NTO) Students

Table 4-6

Percentage of Non-Traditional and Traditional Students
In Other Special Population Groups

	Non-Traditional			Traditional		
	All	F	M	All	F	M
	4240	2300	1940	21698	11803	9895
% Econ. Disad.	43.5	47.1	39.1	44.5	54.3	32.9
% LEP	9.0	8.9	9.2	9.0	10.4	7.3
% Disabled	5.0	4.2	5.9	4.1	4.9	3.1
% Single Parent	16.3	22.5	7.4	6.7	23.8	8.0
% Displ. Home.	5.4	7.4	2.5	2.5	8.4	3.8
% In 1+ other groups	50.4	53.1	47.1	50.3	60.6	38.0

Compared to NTO men, NTO women are:

- More likely to be in one or more other special populations.
- More likely to be economically disadvantaged, LEP, single parents and displaced homemakers.
- Somewhat less likely to be disabled.

Compared to traditional occupation (TO) men, NTO women are also:

- More likely to be in one or more other special populations.
- More likely to be economically disadvantaged, LEP, disabled, single parents and displaced homemakers.

NTO women are somewhat better off compared to TO women. In comparison to TO women, NTO women are:

- Less likely to be economically disadvantaged (only 47% versus 54%).
- Similar on other special population status groups.

NTO men, on the other hand, are more likely to be economically disadvantaged than TO men.

V. Educational Attainment

All of the students in the sample we are looking at had either attained at least 12 units of coursework prior to exit or had received a degree or certificate of any length. All students in the sample are also considered to be vocational students. Given these sample restrictions, the following section looks at the specific educational attainment that students in special populations received. It also compares special population students to non-special population students.

Although these comparisons look separately at men and women, they do not hold race/ethnicity, age, education at entry, or other background characteristics constant. Therefore part of the differences in educational attainment evident among the different special population groups is partially due to differences in demographics. Future research should look at educational outcomes net of other personal characteristics to see if there is still something about being in the special population that could in and of itself be related to educational attainment. Nonetheless, uncontrolled comparisons offer a basis for some general ideas about the differences between groups.

Five Special Populations – Combined

- Special population women are fairly similar to non-special population women in overall educational attainment. Nearly 40% of both exiting populations left with an Associate degree and about one-third left with a certificate (See Figure 5-1).
- Special population women are more likely than non-special population women to leave with 24+ units but no new credential (20% vs. 17%) while non-special population women are more likely to leave with 12-23.99 units (13% vs. 9%) (See Figure 5-1).

- Male special population students were much more likely than male non-special population students to leave with an Associate degree (30% vs. 23%), and much less likely to leave with just 12-23.99 units but no new credential (See Figure 5-2).
- The percentages of male special population and non-special population students leaving with 24+ units or certificates were more similar (See Figure 5-2).

Figure 5-1

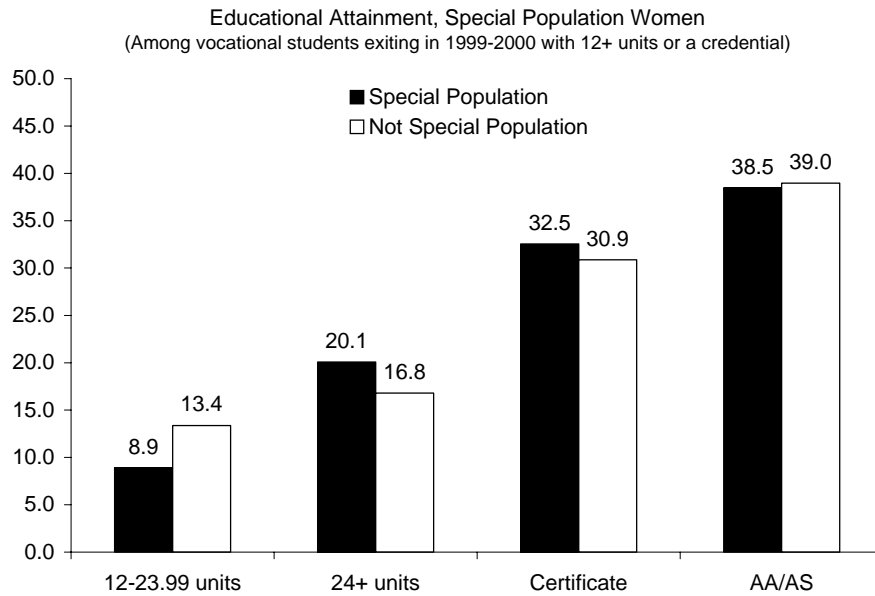
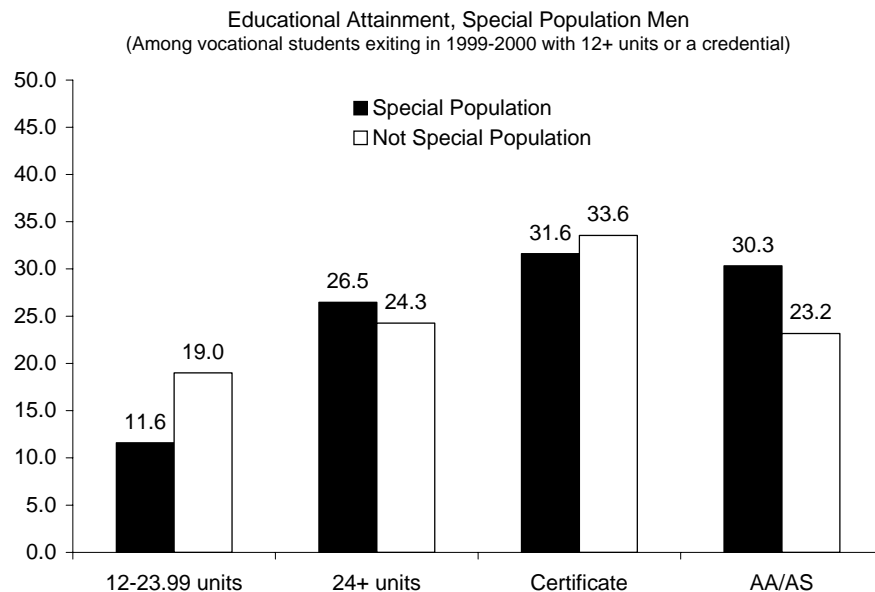


Figure 5-2

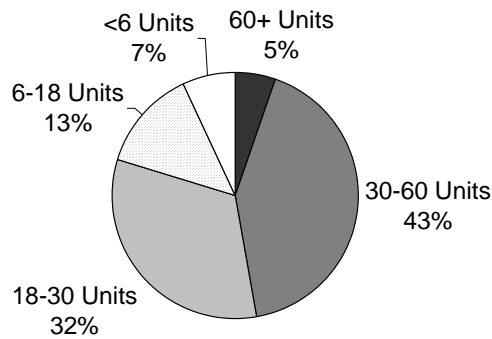


Certificate and Associate degrees can take on a variety of forms. Associate degrees can be an AA or AS, and Certificates can range from less than 6 to over 60 units in length.

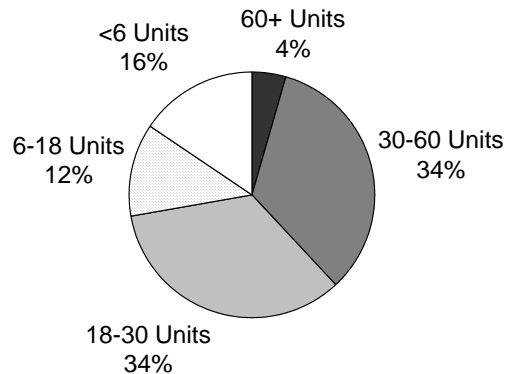
- Among the special population and non-special population men and women who exited college with an Associate degree, the majority left with an AA degree (ranging from 62% to 65%).
- Among certificate holders, special population women were more likely than non-special population women to exit with a certificate at least 30 units in length (48% vs. 38%) and were less likely than non-special population women to exit with very short certificates of less than 6 units in length (7% vs. 16%). This pattern held true among male certificate holders as well (See Figure 5-3).

Figure 5-3

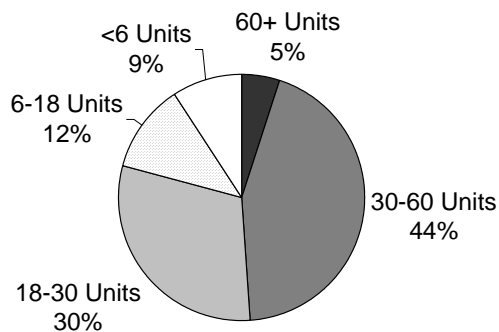
Length of Certificate for Special Population Women
(Among vocational students exiting in 1999-2000)



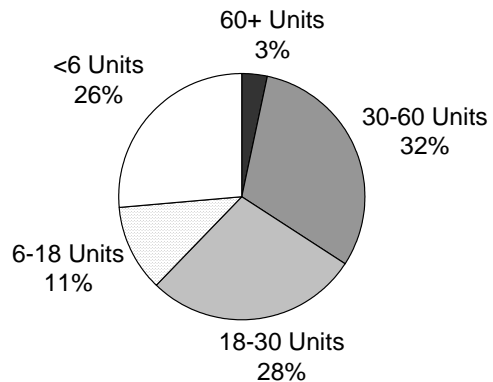
Length of Certificate for Non-Special Population Women
(Among vocational students exiting in 1999-2000)



Length of Certificate for Special Population Men
(Among vocational students exiting in 1999-2000)



Length of Certificate for Non-Special Population Men
(Among vocational students exiting in 1999-2000)



Differences Between Special Population Groups

There are some differences in educational attainment between the 5 special population groups.

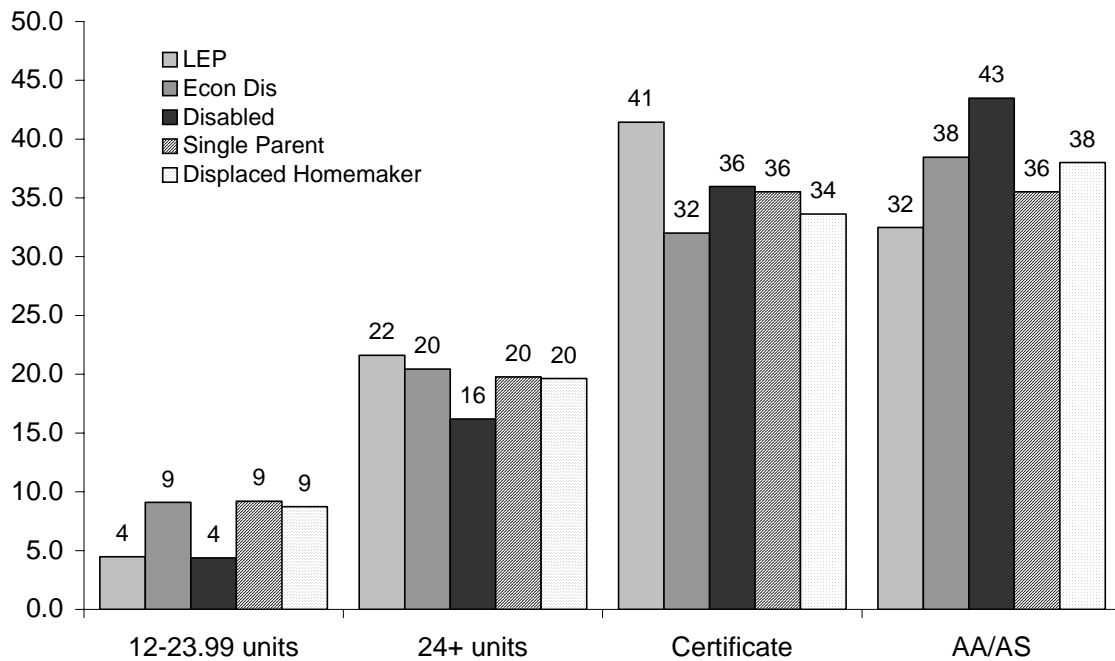
Special Population Women

- Among special population women, disabled women were considerably more likely to leave with an Associate degree than the other 4 special populations (44% compared to 33-39% for the others) (See Figure 5-4).
- LEP women are the most likely to leave with a certificate (42% compared to 32-36% for the others), but are the least likely of the 5 special population groups to leave with an Associate degree (See Figure 5-4).

Again, controlling for background characteristics such as age and race/ethnicity could explain some of this difference.

Figure 5-4

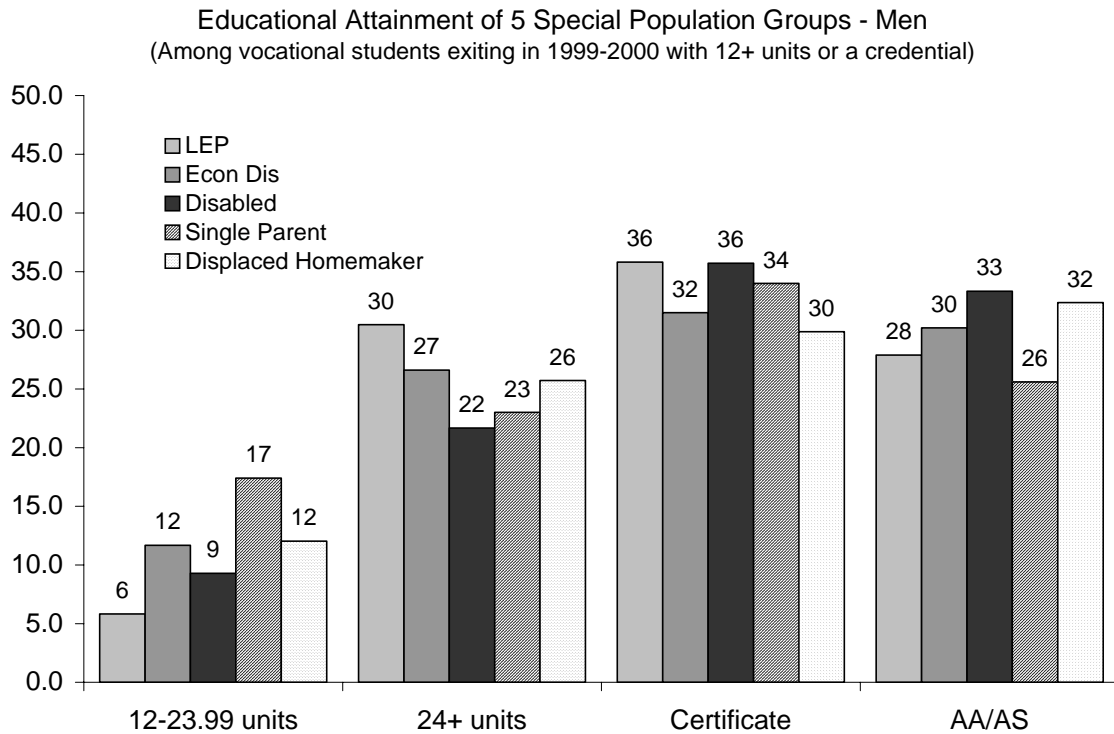
Educational Attainment of 5 Special Population Groups - Women
(Among vocational students exiting in 1999-2000 with 12+ units or a credential)



Special Population Men

- Among special population men, there is a more even spread for those receiving certificates (range is from 30% for displaced homemakers to 36% among LEP and disabled) (See Figure 5-5).
- Men who are single parents are the least likely out of the 5 special population groups to receive Associate degrees (26%) (See Figure 5-5).
- Like women with a disability, men with a disability are among the most likely to receive Associate degrees, however the spread with the other groups is somewhat closer (See Figure 5-5).
- LEP men are the most likely to have completed 24 or more units without a new credential, while male single parents are the most likely to have completed 12-23.99 units without a degree or certificate (See Figure 5-5).

Figure 5-5

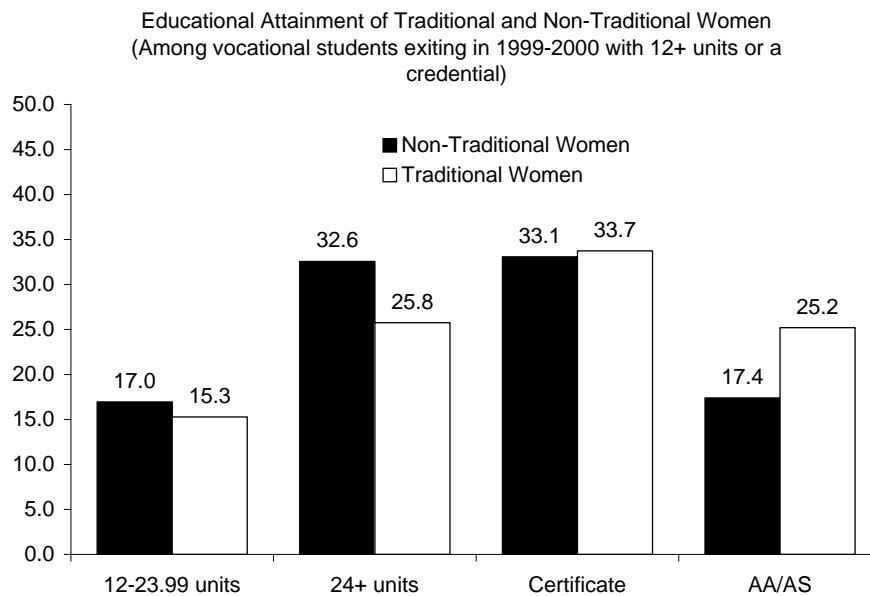


Same-Sex Attainment Differentials (Traditional Occupation and Non-Traditional Occupation Fields)

In comparison to traditional occupation (TO) women, non-traditional occupation (NTO) women are:

- Less likely to exit with an Associate degree
- More likely to exit with 24 or more units but without a new credential.
- As likely to exit with a certificate or 12-23.99 units (See Figure 5-6).

Figure 5-6



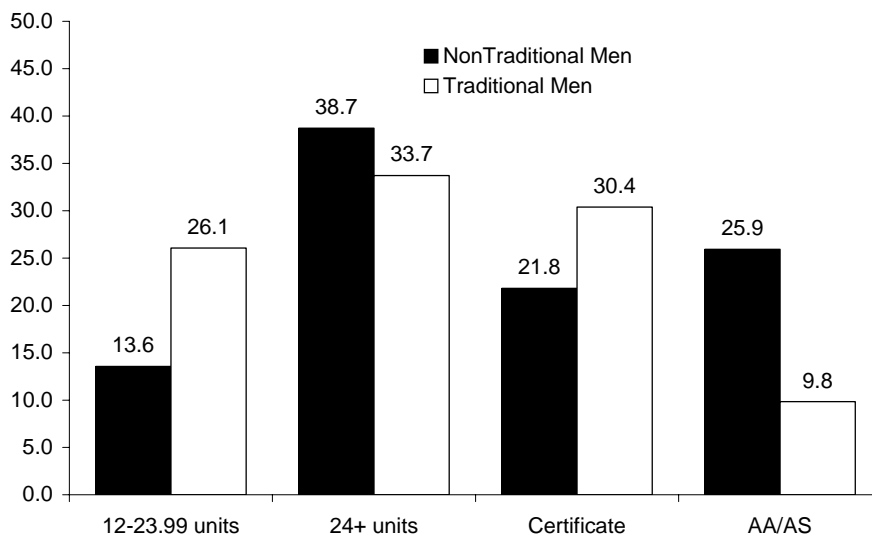
In comparison to TO men, NTO men are:

- More likely to leave with an Associate degree (26% vs. 10%).
- Less likely to leave with a certificate (22% vs. 30%).

While NTO men are much less likely than TO men to leave with only 12-23.99 units completed, they are also somewhat more likely to leave with 24 or more credits but no new credential (39% vs. 34%) (See Figure 5-7).

Figure 5-7

Educational Attainment of Traditional and Non-Traditional Men
(Among vocational students exiting in 1999-2000 with 12+ units or a credential)



Gender Gap in Attainment (Traditional Occupation and Non-Traditional Occupation Fields)

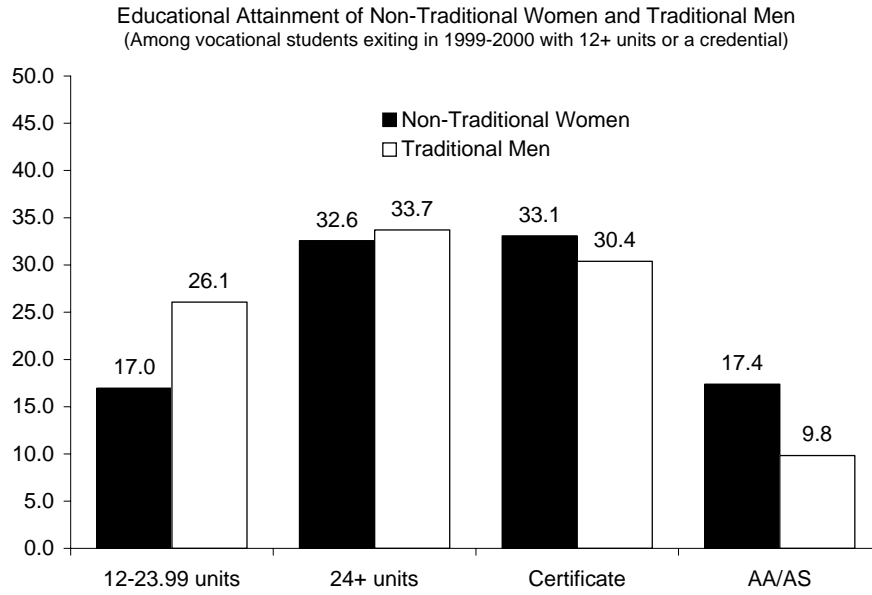
It is also useful to compare educational attainment of non-traditional occupation (NTO) women to traditional occupation (TO) men, and NTO men to TO women, since those groups are in similar fields.

In comparison to TO men, NTO women are:

- Substantially more likely to leave with an Associate degree (17% vs. 10%).
- Much less likely to leave with only 12-23.99 units (17% vs. 26%).

However, the percentage of NTO women and TO men leaving with certificates or 24+ units is similar (See Figure 5-8).

Figure 5-8

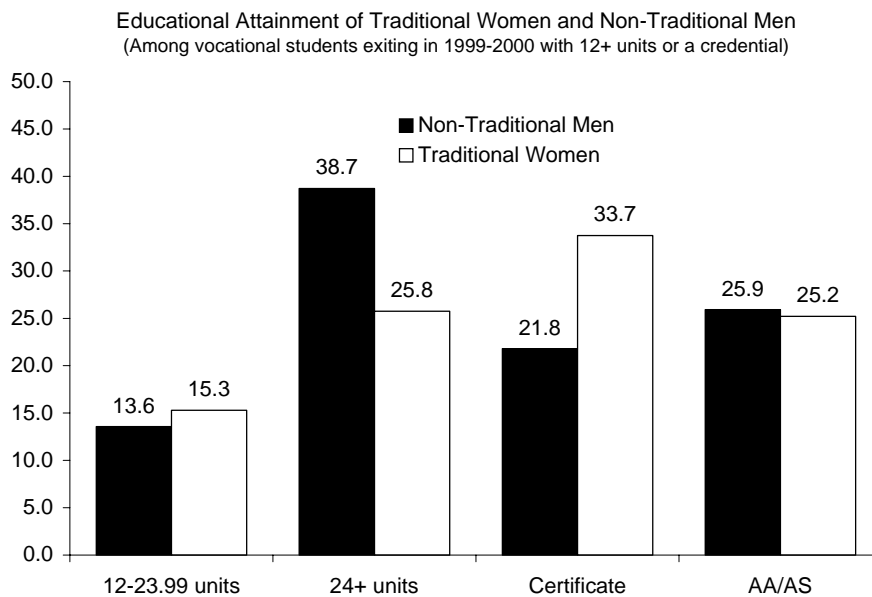


In comparison to TO women, NTO men:

- Are as likely to leave with an Associate degree or only 12-23.99 units.
- Differ substantially in the receipt of a certificate vs. only completing 24+ units. NTO men are much more likely to leave college with 24+ units completed but not a credential, while TO women are more likely to leave with a certificate (See Figure 5-9).

These differences may have to do with the specific fields NTO men and TO women are in, which will be explored in the following section of the report.

Figure 5-9



VI. Educational Programs

This section of the report looks at the variety of programs in which special population and non-special population men and women are enrolled, by studying the distribution of programs among students who exited with a particular credential or number of units, and comparing the programs of special population students to non-special population students. In addition, this section examines the program distribution of male and female non-traditional occupation and traditional occupation students.

Distribution of Programs Among Female Special Population Students

The most popular programs among female special population and non-special population students were: Nursing/Dental, Lifespan, Business, Computer Information Sciences (CIS), Secretarial, Cosmetology, Emergency Medical Technician (EMT), and Administration of Justice (AOJ). The percentage of female students in these programs varied by special population status and educational attainment. Special population and non-special population women who exited with an AS or AA were fairly similar in the programs they went into:

- About 1/3 of special population and non-special population women with AS degrees studied Nursing/Dental, and the next most popular programs were Business, CIS and Lifespan.
- Women with AA degrees were less likely to be in Nursing/Dental programs and more likely to be in Business, Lifespan and CIS.

There were more differences between special population and non-special population women among certificate holders:

- Special population women with 60+ unit certificates had a greater percentage in Nursing/Dental programs than non-special population women (41% versus 32%).
- Non-special population women with 60+ certificates had higher percentages in Business, law, and other health programs.
- Among the shorter certificates, special population women were more likely to be in Secretarial or Lifespan than non-special population women, while non-special population women were more likely to be in Business, AOJ, and EMT (See Tables 6-1 and 6-2).

Table 6-1

Percentage of Special Population Women in Popular Programs
By Educational Attainment

	AS	AA	60+ Cert	30-60 Cert	18-30 Cert	6-18 Cert	<6 Cert	24+ Units	12-23.99 Units	Total
Other	24.2	23.4	36.3	29.7	24.3	10.5	18.7	24.3	21.4	24.0
AOJ	4.3	4.5	0.8	1.5	5.1	6.5	6.2	5.4	4.3	4.4
EMT	0.2	0.6		0.2	0.7	5.6	11.6	0.3	0.5	0.9
Cosmetology	0.2	0.1		10.0	2.9	1.8	0.3	13.1	10.2	5.4
Secretary	7.2	8.4	2.3	8.9	9.5	9.7	0.9	11.9	13.3	9.3
Computer	8.9	14.4	3.1	4.0	9.2	3.5	0.6	6.7	4.5	8.2
Business	13.5	21.0	9.0	6.0	14.4	9.1	2.7	12.4	9.2	13.2
Lifespan	8.7	18.4	7.0	19.3	18.2	41.6	37.7	18.4	31.0	19.5
Nursing/Dental	32.7	9.2	41.4	20.4	15.6	11.7	21.4	7.5	5.7	15.1

Table 6-2

Percentage of Non-Special Population Women in Popular Programs
By Educational Attainment

	AS	AA	60+ Cert	30-60 Cert	18-30 Cert	6-18 Cert	<6 Cert	24+ Units	12-23.99 Units	Total
Other	26.6	27.6	42.6	32.0	36.1	14.3	12.0	29.8	19.8	27.1
AOJ	3.9	4.4	1.9	6.9	2.9	8.4	36.8	5.1	8.4	6.8
EMT	0.1	0.5	0.6	0.6	1.3	15.4	29.1	0.6	1.0	2.6
Cosmetology	0.4	0.0		12.4	6.0	2.4	0.2	14.4	14.4	6.4
Secretary	2.8	5.3	3.1	4.6	4.0	4.2	0.5	5.8	5.5	4.6
Computer	7.7	14.9	1.2	4.8	8.8	6.6	1.2	8.1	7.8	9.0
Business	16.0	24.6	12.3	6.2	13.6	12.7	2.1	15.3	12.6	15.5
Lifespan	6.4	13.1	6.2	13.0	15.3	27.5	10.8	14.4	27.2	14.8
Nursing/Dental	36.0	9.5	32.1	19.4	12.0	8.6	7.5	6.4	3.4	13.2

Distribution of Programs Among Male Special Population Students

The most popular programs for male special population and non-special population students were: Engineering, Business, Computer Information Sciences (CIS), Administration of Justice (AOJ), Fire Control, Emergency Medical Technician (EMT), and Nursing/Dental. Like the women, male special population and non-special population students who received AA or AS degrees had a fairly similar distribution of programs:

- About a quarter of special population and non-special population men who received AS degrees were in Engineering programs, about 13% were in Business, and about 15% were in CIS. The one major difference was that non-special population men with AS degrees were somewhat more likely to be in Fire Control programs than special population men with AS degrees (11% vs. 3%).
- Among Associate of Arts degree holders, the majority of special population and non-special population men were in Business (22 and 26%), CIS (19 and 21%), and AOJ (12 and 10%).
- Among male 60+ unit certificate holders, special population men were somewhat less likely to be in Engineering fields than non-special population men (37% vs. 42%). While about 10-12% of special population and non-special population men with 60+ unit certificates were in Nursing/Dental, special population men were also more likely than non-special population men to be in other health fields.
- In terms of the shorter length certificates, special population men were less likely than non-special population men to be AOJ and Fire Control, and more likely to be in Engineering or CIS (See Tables 6-3 and 6-4 below).

Table 6-3

Percentage of Special Population Men in Popular Programs
By Educational Attainment

	AS	AA	60+ Cert	30-60 Cert	18-30 Cert	6-18 Cert	<6 Cert	24+ Units	12-23.99 Units	Total
Other	23.0	33.7	47.7	23.6	18.3	13.1	22.1	22.0	16.7	23.7
EMT	0.4	0.3		1.0	0.4	16.3	11.7	0.4	1.9	1.6
Fire Control	2.7	0.8	0.8	2.8	5.5	12.1	4.2	1.8	3.4	2.8
AOJ	9.9	9.5	0.8	3.6	10.5	17.6	12.9	8.5	11.7	9.1
Computer	16.8	21.0	1.6	7.2	14.1	6.5	1.7	13.4	8.2	13.1
Business	12.8	22.4	2.3	3.0	6.8	6.2	2.9	8.6	6.2	10.1
Engineering	26.7	10.1	36.7	54.6	42.6	26.5	40.8	44.1	51.1	36.9
Nursing/Dental	7.7	2.3	10.2	4.1	1.9	1.6	3.8	1.2	0.7	2.8

Table 6-4

Percentage of Non-Special Population Men in Popular Programs
By Educational Attainment

	AS	AA	60+ Cert	30-60 Cert	18-30 Cert	6-18 Cert	<6 Cert	24+ Units	12-23.99 Units	Total
Other	16.9	27.9	33.3	15.7	13.9	6.6	5.8	17.7	9.8	15.7
EMT	1.2	0.5	0.7	2.4	2.0	27.0	13.6	1.4	1.4	3.5
Fire Control	10.6	2.2	2.1	6.6	10.5	16.0	5.3	6.0	7.8	7.0
AOJ	10.6	11.9	2.1	20.4	11.7	28.4	52.0	11.1	21.9	18.4
Computer	15.2	19.1	3.5	4.2	9.8	5.0	0.7	13.5	9.3	10.8
Business	13.5	26.3	4.3	3.8	7.6	4.4	1.0	9.7	5.5	9.8
Engineering	22.1	9.6	41.8	44.8	42.8	12.0	21.2	39.9	44.1	32.9
Nursing/Dental	10.0	2.5	12.1	2.1	1.6	0.6	0.4	0.8	0.2	2.0

Distribution of Programs Among Women in Non-Traditional Occupation (NTO) Fields

The most popular NTO women's fields were Agriculture, Engineering, AOJ. NTO women leaving with AS degrees were most likely to have been AOJ (39%) followed by Engineering (25%) and then Agriculture (16%). On the other hand, about half of NTO AA degree holders were in AOJ, with smaller percentages in Engineering and agricultural fields. In terms of the certificates, there was not enough sample size to look at program differences within NTO women exiting with 60+ certificates or certificates of less than 6 units. However, it appears that the shorter the certificate, the greater the percentage of NTO women in AOJ, and the smaller the percentage of women in Engineering (See Table 6-5).

Table 6-5

Percentage of Non-Traditional Occupation Women in Popular Programs
By Educational Attainment

	AS	AA	60+ Cert	30-60 Cert	18-30 Cert	6-18 Cert	<6 Cert	24+ Units	12-23.99 Units	Total
Other	19.5	26.2	low	34.2	30.0	32.9	low	29.9	22.1	28.0
AOJ	39.0	52.3	sample	23.8	34.5	59.2	sample	35.9	49.7	38.3
Engineering	25.1	16.8	size	35.5	26.6	3.9	size	26.0	22.3	25.6
Agriculture	16.3	4.7		6.5	9.0	3.9		8.1	5.9	8.2

Distribution of Programs Among Men in Traditional Occupation (TO) Fields

The majority of men in traditionally male dominated occupation fields are in Engineering, AOJ, and Fire Control. While a large percentage of NTO women with AS degrees are in AOJ (39%), only half as many TO men with AS degrees are in AOJ (20%). By contrast, over half (55%) are in Engineering programs. Similarly, TO men with 60+ certificates are heavily dominated by engineers (74%), while only 31% of NTO women with 60+ certificates are in Engineering. As with NTO women, for the most part, the shorter the certificate, the smaller the percentage of TO men in Engineering programs. However, this is only the case for TO men with certificates greater than 6 units in length. The vast majority of TO men earning certificates less than 6 units in length were in Engineering (76%) (See Table 6-6 below).

Table 6-6

Percentage of Traditional Occupation Men in Popular Programs
By Educational Attainment

	AS	AA	60+ Cert	30-60 Cert	18-30 Cert	6-18 Cert	<6 Cert	24+ Units	12-23.99 Units	Total
Other	11.2	14.8	23.6	10.1	7.4	5.8	12.0	13.3	6.7	10.2
AOJ	19.7	41.4	0.9	19.2	18.0	45.0	12.0	16.2	25.5	21.1
Engineering	55.3	38.3	73.6	64.0	59.6	24.0	76.0	63.7	59.0	59.5
Fire Control	13.7	5.6	1.9	6.6	15.0	25.1		6.8	8.8	9.2

Distribution of Programs Among Women in Traditional Occupation (TO) Fields

The most popular traditionally women's programs are Nursing/Dental, Lifespan, Business, Secretarial, and Cosmetology. Among all TO women who exited with an AS degree or a 60+ unit certificate, two-thirds received their credential in Nursing/Dental. Among TO women AA degree holders, the distribution was more even among Business degrees (34%), Nursing/Dental (27%), and Lifespan (23%), with Secretarial following at 11%. Among TO women who received 30-60 unit certificates, the most popular programs were Nursing/Dental, Cosmetology and Lifespan; 18-30 unit TO certificate holders were primarily in Nursing/Dental, Lifespan and Business. Certificates shorter than that (18 units or less) were heavily dominated by Lifespan programs (See Table 6-7).

Table 6-7

Percentage of Traditional Occupation Women in Popular Programs
By Educational Attainment

	AS	AA	60+ Cert	30-60 Cert	18-30 Cert	6-18 Cert	<6 Cert	24+ Units	12-23.99 Units	Total
Other	7.9	5.9	5.4	9.5	10.6	2.8	9.4	8.3	5.2	7.7
Cosmetology	0.4	0.3		19.7	7.9	4.9		22.8	20.6	13.2
Secretary	7.0	10.5	3.6	11.9	12.1	11.5	0.9	15.8	14.9	12.1
Business	13.4	34.0	17.0	7.4	19.1	15.8	5.6	21.3	16.6	17.4
Lifespan	9.3	22.7	6.3	19.2	25.2	53.8	70.0	20.2	35.7	23.3
Nursing	62.0	26.6	67.7	32.2	25.1	11.1	14.1	11.7	7.1	26.3

Distribution of Programs Among Men in Non-Traditional Occupation (NTO) Fields

Like TO women, NTO men earning an AS degree were primarily in Nursing/Dental programs (54%). Although it would also appear that the majority of men with 60+ certificates were also in Nursing/Dental, the sample size for this population was fairly small. For NTO men earning shorter certificates, the shorter the certificate, the greater the proportion of men in Business programs and the smaller the proportion of men in Nursing/Dental programs. Men with certificates less than 18 units in length were too small a sample to reach any conclusions about program distribution. NTO men who finished 12 or more units without obtaining a new credential were primarily in Business programs (See Table 6-8).

Table 6-8

Percentage of Non-Traditional Occupation Men in Popular Programs
By Educational Attainment

	AS	AA	60+ Cert	30-60 Cert	18-30 Cert	6-18 Cert	<6 Cert	24+ Units	12-23.99 Units	Total
Other	9.4	8.8	low	48.5	30.3	low	low	27.4	24.3	24.8
Secretary	2.6	4.7	sample	6.1	9.9	sample	sample	5.9	10.3	6.0
Business	33.2	67.9	size	20.7	47.9	size	size	60.6	61.6	51.0
Nursing	54.8	18.7		24.7	12.0			6.1	3.8	18.2

VII. Employment Outcomes

Three-Period Employment Rates

One way to look at employment rates is to find out to what degree students are employed⁸ during three time periods: the year prior to college entrance, the first year after college exit, and the second year after college exit. This definition of employment is important because the study later explores changes in earnings among those students who were employed during all three periods of time.

The majority of special population and non-special population students were employed the first and second year after exiting college (70% of special population students and 77% of non-special population students).⁹ However, special population students were less likely than their non-special population counterparts to be employed prior to attending college. Only 46% of special population women were employed during all three periods (prior to attending college as well as the first and second year out of school), compared to 58% of non-special population women. Similarly, only 50% of non-special population men were employed all three periods compared to 70% of non-special population men (See Figure 7-1).

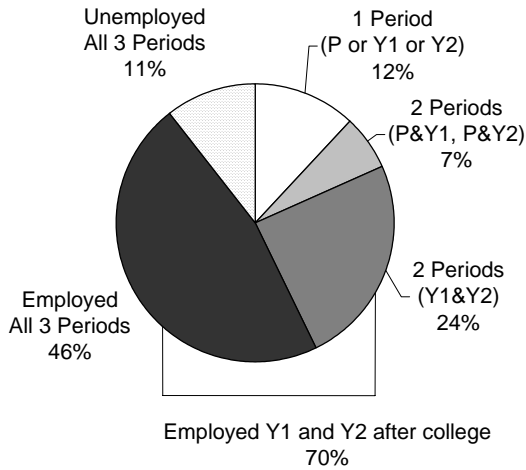
Similar differences in employment were true for traditional occupation (TO) and non-traditional occupation (NTO) students. 51% of TO women were employed all three periods, compared to 57% of NTO women. While 57% NTO men were employed prior to college entry and both years after college exit, 66% of TO men were similarly employed (See Figure 7-2).

Part of the reason for not being employed prior to attending community college could be because students were still involved in secondary schooling. Special population men on average were similar age to non-special population men, but special population women were one year younger than non-special population women on average. TO women and NTO women were on average the same age (31) and NTO men were considerably older than TO men (32 vs. 29), therefore it may not be as likely that lower employment among special population students, TO women and NTO men prior to college enrollment was due to this reason. Nonetheless, future research should account for age/high school attendance prior to college entry in determining what weight to give to unemployment during that period of time.

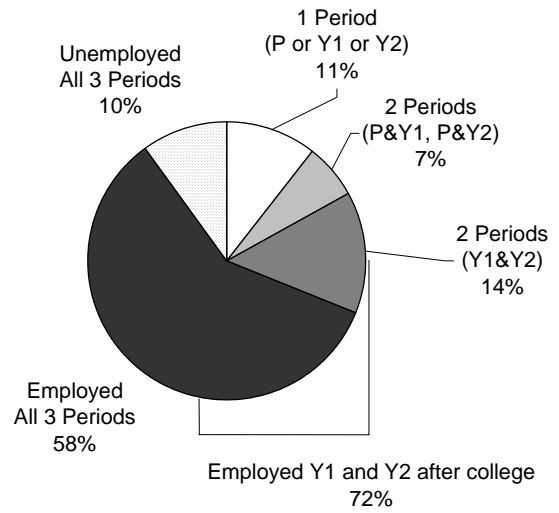
Figure 7-1

Percentage of Exiting Students Employed in 3 Periods:
Pre-College (P), First Year Out of School (Y1),
Second Year Out of School (Y2)

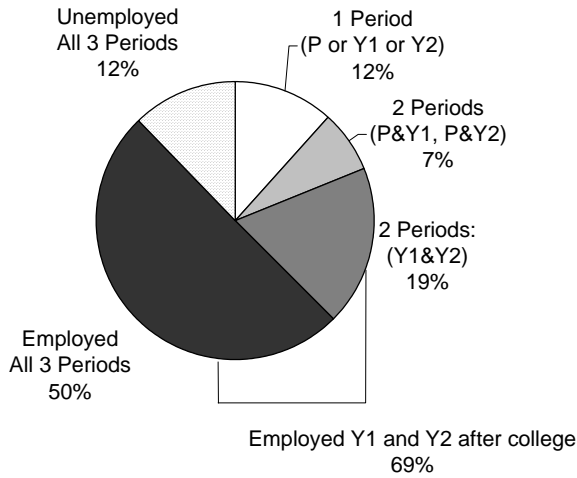
Special Population Women



Non-Special Population Women



Special Population Men



Non-Special Population Men

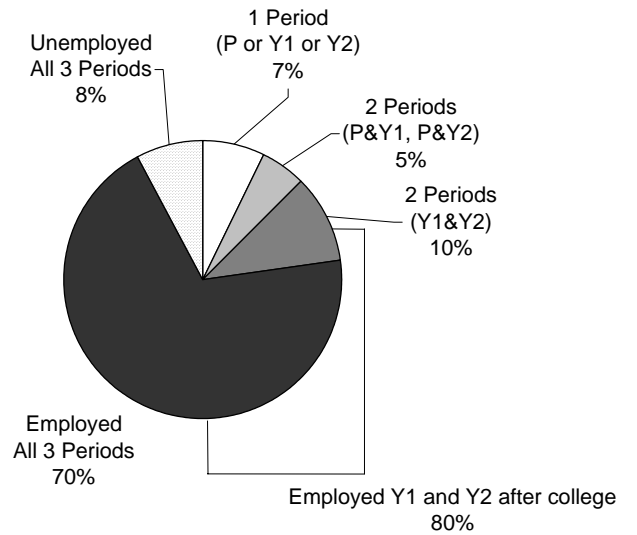
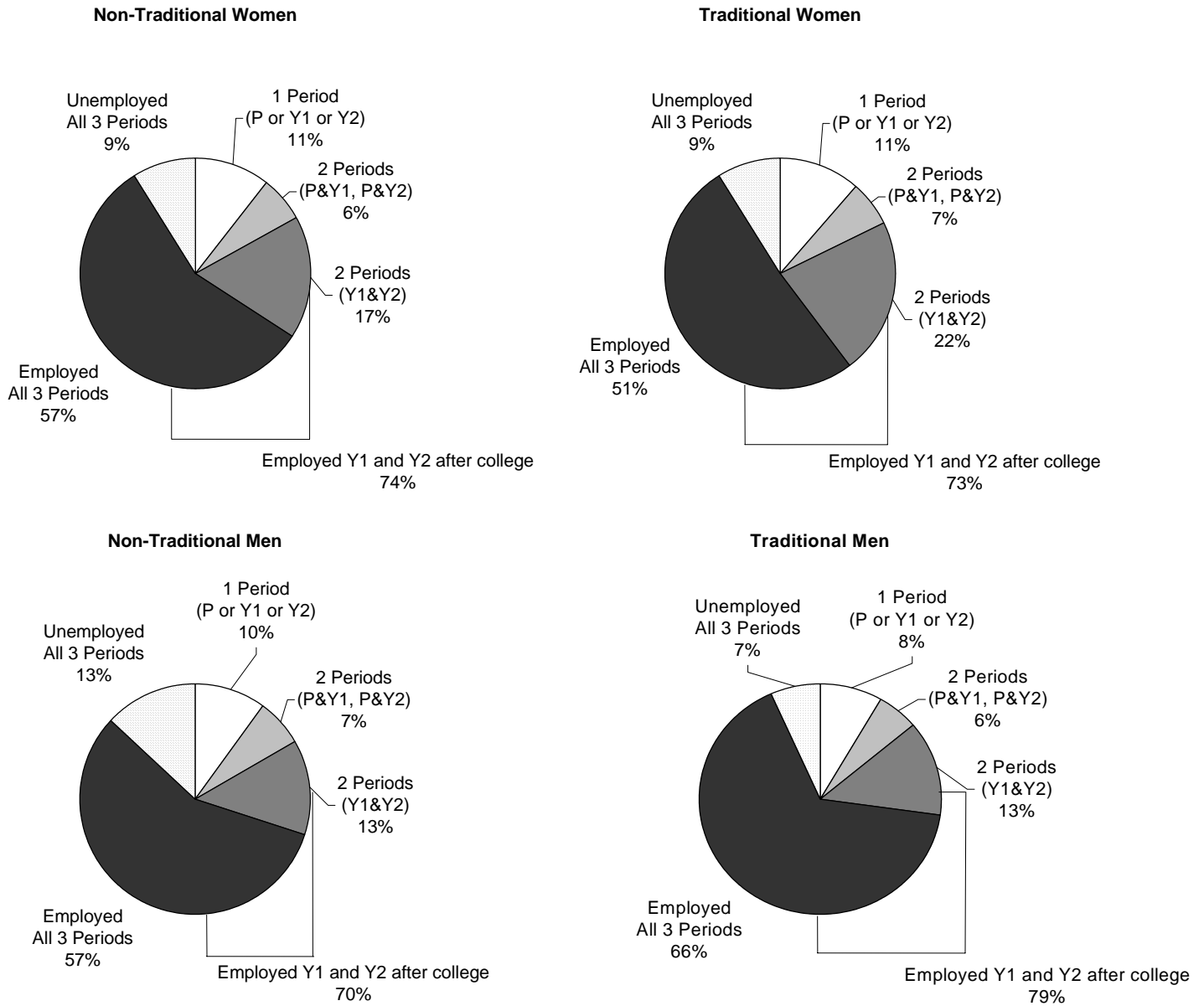


Figure 7-2

Percentage of Exiting Students Employed in 3 Periods:
Pre-College (P), First Year Out of School (Y1),
Second Year Out of School (Y2)



Year-Round Employment Rates

In addition to looking at whether students were employed at any point in the year prior to and after attending college, another way to assess employment is to see whether students are employed all four quarters of the year (year-round), and to look at whether year-round employment rates increase from before to after attending college. Special population women clearly increase year-round employment over time. Prior to attending school, only 30% of special population women worked year-round compared to 50% of non-special population women. By the second year out of school, 55% of special population women worked year-round, compared to 60% of non-special population women. Similar trends were true for special population men, although the gap between special population men and non-special population men did not close as much as it did among women (See Figures 7-3 and 7-4).

Figure 7-3

Four Quarter Employment Rate for Women Exiting College in 1999-2000

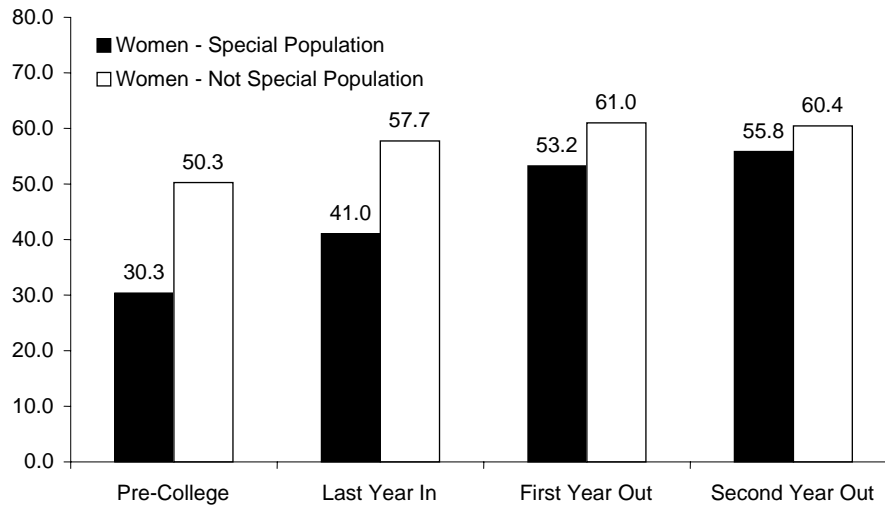
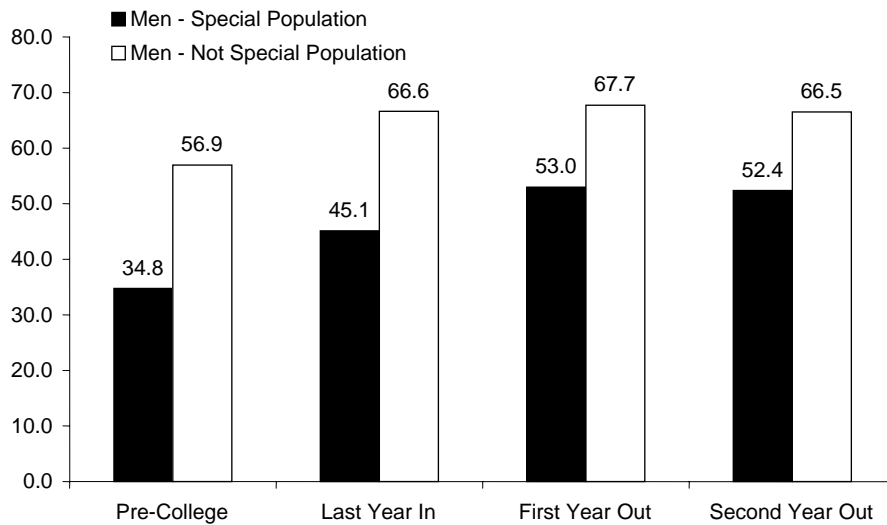


Figure 7-4

Four Quarter Employment Rate for Men Exiting College in 1999-2000



It is also interesting to observe the year-round employment patterns of TO students in comparison with NTO students. Prior to attending college, TO women had somewhat lower year-round employment than NTO women (37% vs. 45%). However, by the second year out of school, year-round employment was on par with their NTO counterparts (at about 60% each). NTO men began with lower year-round employment than TO men, but also improved over time. However, a gap still remained by the second year out of school (See Figures 7-5 and 7-6).

Figure 7-5

Four Quarter Employment Rate for Women Exiting College in 1999-2000

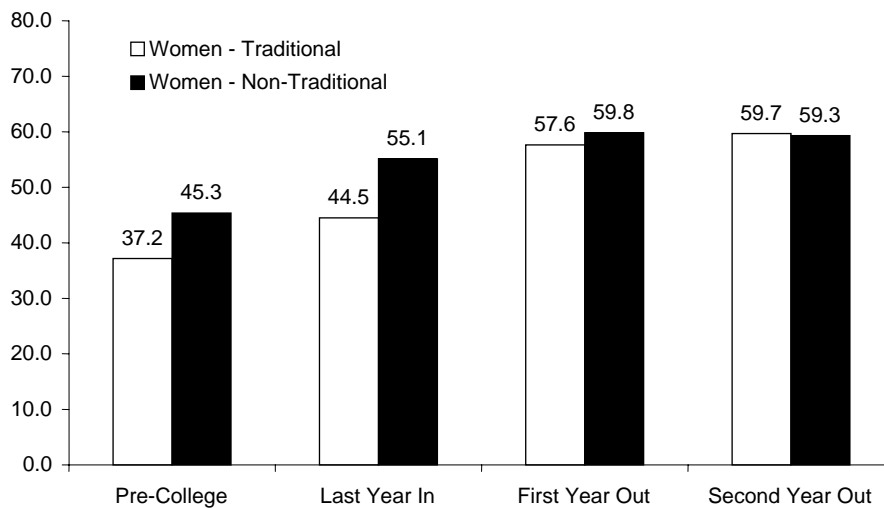
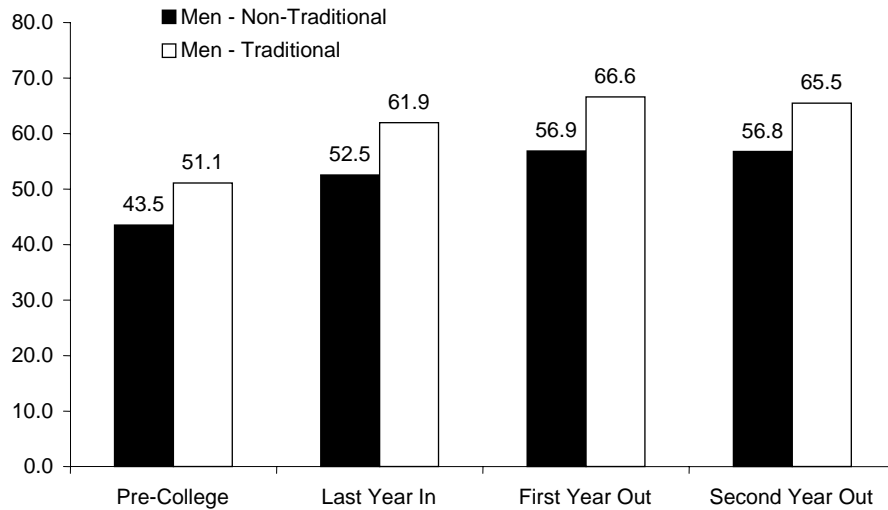


Figure 7-6

Four Quarter Employment Rate for Men Exiting College in 1999-2000



Year-Round Employment by Educational Attainment

Does the amount of education that special population students receive affect year round employment after exit? It would appear that for women, this is the case, but not for men.

While 45% of special population women who completed 12-23.99 units of education prior to exiting were employed all four quarters the second year out of school, 49% of special population women who received 24+ units were employed year-round, 58% of special population women with certificates, and 60% of special population women with associate degrees. This trend held true for each of the special population groups with the exception of LEP women (where it appears that certificates generate higher year-round employment rates by the second year out of school than Associate degrees) (See Figure 7-7).

There is no such positive association between educational attainment and post college year-round employment for men as there is for women. Men who receive 12-23.99 units are about as likely to be employed all four quarters of the year two years after attending college as men who receive Associate degrees. This is evidence that the amount of education received is particularly important for special population women (See Figure 7-8).

Figure 7-7

Percentage of Special Population Women Employed Year-Round
Their Second Year Out of School by Educational Attainment

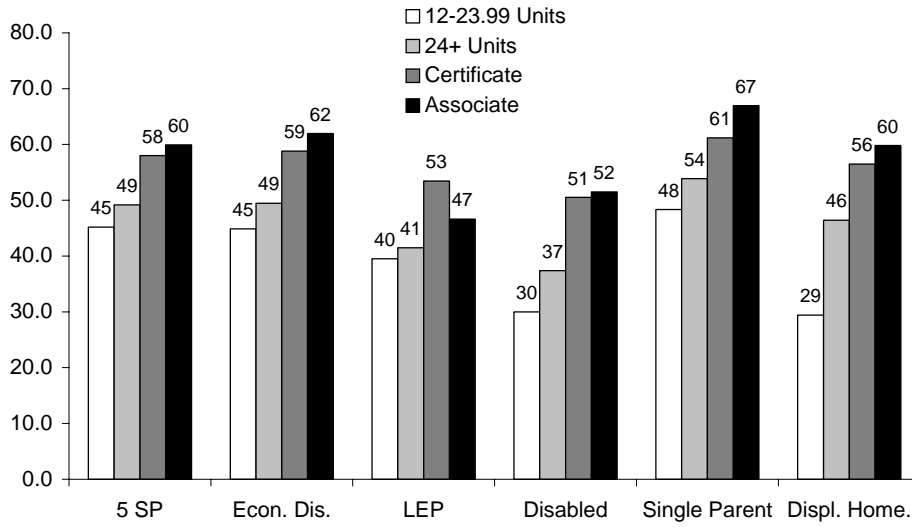
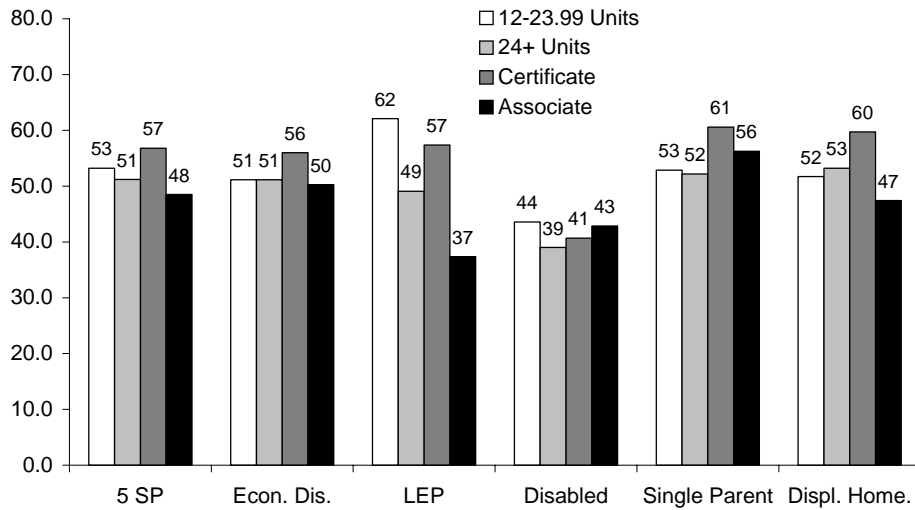


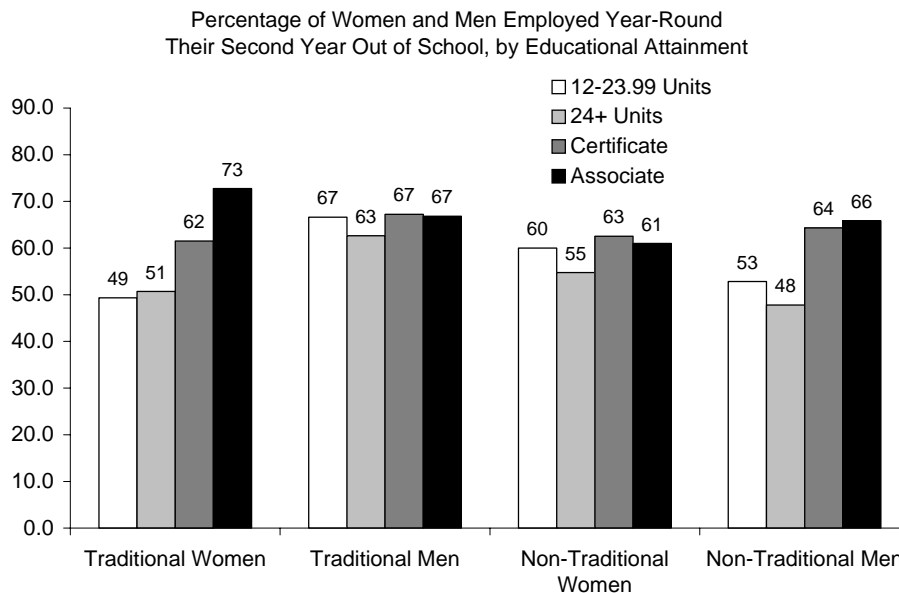
Figure 7-8

Percentage of Special Population Men Employed Year-Round
Their Second Year Out of School by Educational Attainment



Interestingly, while women in TO programs and men in NTO programs show a positive association between educational attainment and year-round employment, women NTO programs and men in TO programs show no such association. This may indicate that it is the program itself or the occupations they lead to, rather than gender or amount of education, that affects employment patterns (See Figure 7-9).

Figure 7-9



VIII. Earnings Outcomes

To determine earnings outcomes, the study analyzes students who exited college in 1999-2000 and were employed at least one quarter of the year in all three time periods – the year prior to college entry, and one and two years after college exit. The study first examines earnings and earnings increases from pre to post college among special population men and women in the five special population groups. The study then compares the difference in median annual earnings (the earnings “gap”) over time between special population and non-special population groups and between traditional occupation (TO) and non-traditional occupation (NTO) students.

Even though both groups may be increasing their earnings over time, it is important to know whether disadvantaged students are in fact “catching” up to more advantaged students after exiting college, or whether disadvantaged students maintain a relatively lower economic status despite college attendance. For these comparisons, groups are separated by educational attainment, and program so that only advantaged and disadvantaged students who leave college

with similar credentials are compared. In addition, the study primarily concentrates on students who leave with an Associate degree or a certificate of at least 18 units in length.

The percentage gap in median annual earnings between two groups is calculated by taking the difference in earnings (earnings of advantaged group – earnings of disadvantaged group) and dividing by the earnings of the disadvantaged group. This percentage tells how much more the advantaged group is making over the disadvantaged group. In instances where the disadvantaged group makes more than the advantaged group, the percentage gap will have a negative value.

It is important to note that some portion of the earnings gap between special population and non-special population students is likely due to demographic differences between the two groups. For instance, non-special population students who were employed all three periods are slightly older than special population students who were employed all three periods. This means that non-special population students have more labor market experience prior to entering college, which could garner them more earnings both before and after college attendance. In addition, non-special population students are less likely to be minorities, and are more likely to have already obtained a high school degree prior to entering college. These differences no doubt contribute to the earnings gap. Therefore any reductions that appear in the gap between special population and non-special population students are being made despite the demographic disadvantages that special population students have upon entry into college.

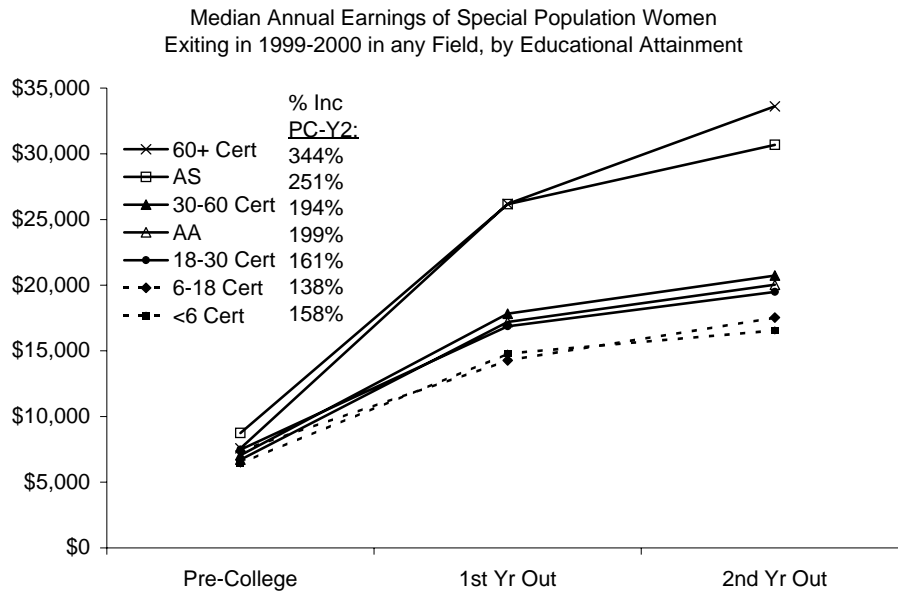
Special Population Women (Combined)

Special population women who exited in 1999-2000 all substantially increased their earnings after leaving college. Overall, median annual earnings rose from \$7,133 to \$20,144 between the year prior to college entry to the second year after college exit – a 182% increase. These overall figures do not account for the educational attainment that special population women received while in school.

- Special population women who exited college with 60+ unit certificates had the greatest median annual earnings after two years in the labor market (\$33,610). These students also showed the greatest percentage increase in earnings between before coming to college and two years after exit (344%).
- Special population women who had received AS degrees made the next highest median annual earnings, at \$30,685.

- The earnings of special population women with 60+ unit certificates and AS degrees were considerably higher than that of special population women who exited with an AA degree or shorter length certificates (See Figure 8-1).

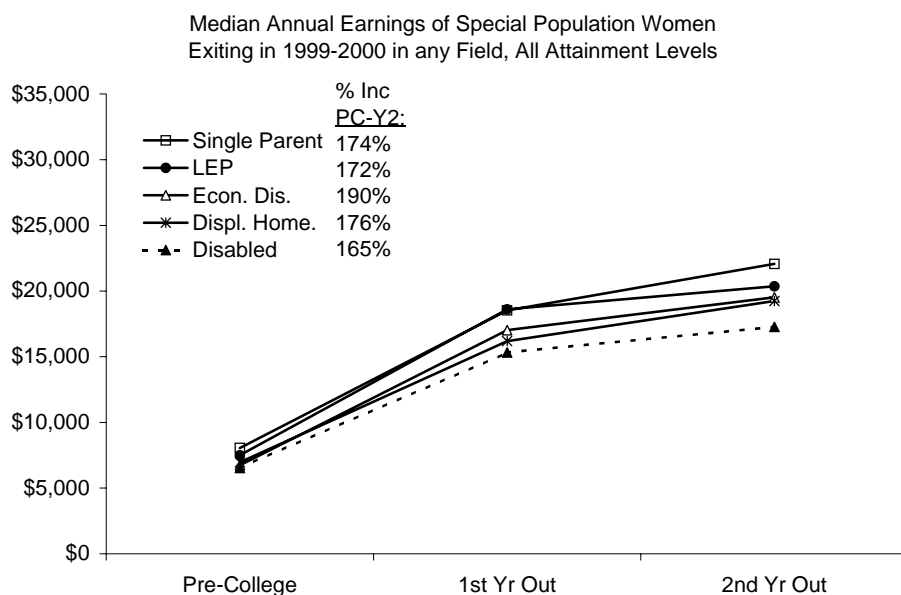
Figure 8-1



Special Population Women (Five Group Comparison)

- Among the five special population groups, single parent women began college having received slightly greater median annual earnings in the year prior to entry. They also had the greatest overall earnings two years after exit.
- Disabled women began school with slightly lower earnings than the other groups of women and were making less than the others two years after exit.
- Looking at increases in earnings over time, economically disadvantaged women had the largest gain in earnings from before college to the second year out (a 190% increase in median annual earnings).
- Disabled women made substantial, but lower gains (a 165% increase in median annual earnings) (See Figure 8-2).

Figure 8-2



For special population women of any educational attainment level, there was only a roughly \$5,000 difference in median annual earnings between the highest and lowest paid special population group by the second year out. Looking at different educational groups separately, the spread among the five groups increases somewhat.

- Among special population women with AS degrees, single parent, economically disadvantaged, and displaced homemaker women had similar earnings patterns from pre-college to the second year out and made about \$30,000 by year two in the labor market (See Figure 8-3, p.A-4 of Appendix). On the other hand, women with AS degrees who are disabled or LEP had somewhat lower earnings, in particular LEP women, who only had a median of about \$23,500 by the second year out of college (See Figure 8-3, p.A-4 of Appendix).
- Among special population women with AA degrees, single parents were clearly earning more than the other special population groups, both prior to coming to college and after exiting. However, in this case, LEP students were more in the middle of the income distribution than lagging behind (See Figure 8-4, p.A-4 of Appendix). Women with AA degrees had the largest spread in earnings between the 5 special population groups by the second year out - a \$9,156 difference in earnings between disabled and single parent women. (See Figure 8-4, p.A-4 of Appendix).
- For women with 30-60 unit certificates, all of the special population groups with the exception of disabled women showed a similar earnings trajectory (See Figure 8-5, p.A-5 of Appendix).

- Finally, among 18-30 unit certificate holders, LEP students came out slightly ahead in median annual earnings, making about \$21,800 in comparison to the other groups, which ranged from about \$16,100 for disabled women to \$18,900 for single parents (See Figure 8-6, p.A-5 of Appendix).

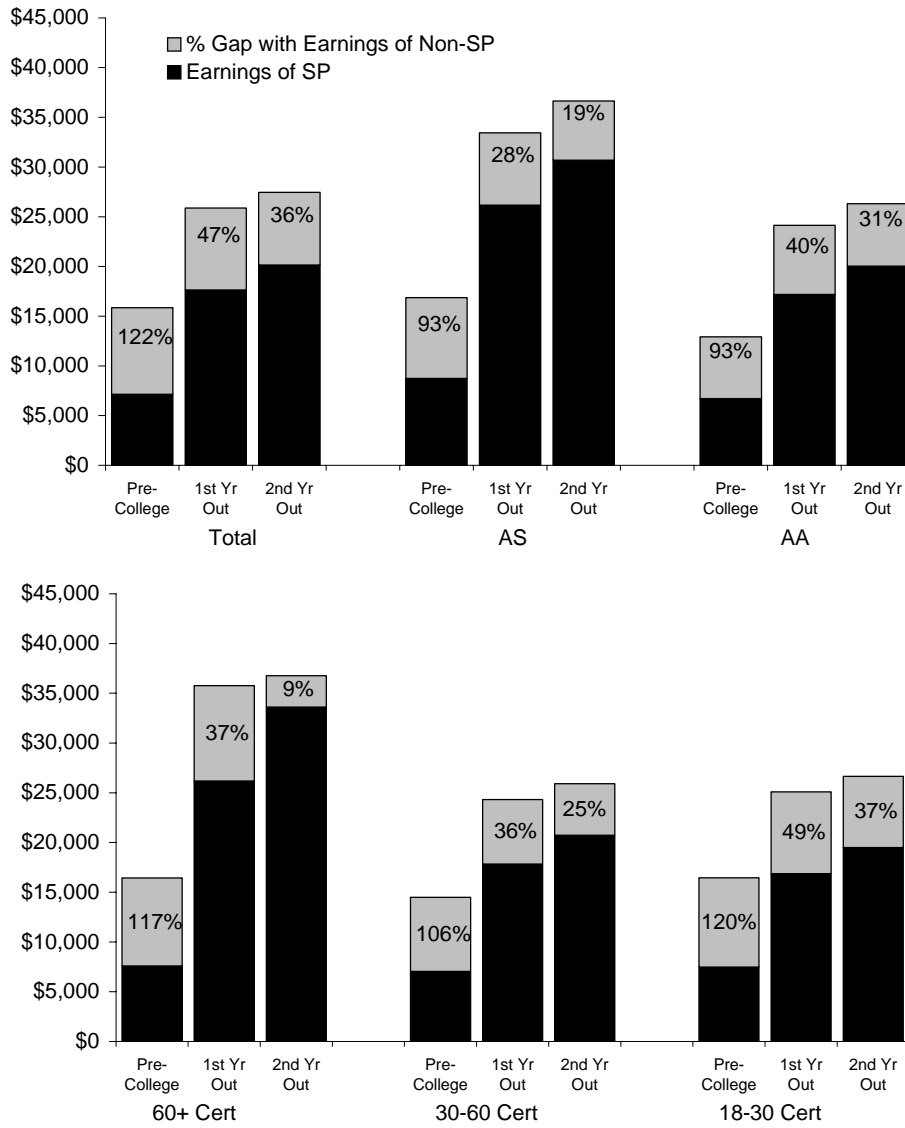
Special Population Women in Comparison to Non-Special Population Women, By Program and Educational Attainment¹⁰

In general, special population women continued to have lower earnings than non-special population women both prior to attending college, as well as in the first and second year out of college. However, the percentage gap in median annual earnings between special population and non-special population women decreased over time.

- Looking at women over all programs and educational attainment levels, the percentage gap in median annual earnings decreased from 122% prior to attending college to 36% the second year out.
- The decrease in the gap was true for women at all levels of educational attainment. Special population women who left with a 60+ unit certificate substantially closed the earnings gap with non-special population women (from 117% pre-college to 9% the second year out of school) (See Figure 8-7 below).

Figure 8-7

Percentage Gap In Median Annual Earnings Between Special Population and Non-Special Population Women (All Fields) By Education and Year



In addition to these overall figures, we can also look at differences in earnings gap reduction for various fields that were popular among special population women (Nursing/Dental, Lifespan, Business, Computer Information Sciences, and Secretarial).

Nursing/Dental (See Figure 8-8, p.A-6 of Appendix)

Special population women in Associate degree or 60+ unit certificate Nursing/Dental programs had median annual earnings of approximately \$40,000 by the second year out of college. They were also able to considerably lower the earnings gap with non-special population women in similar programs over time.

- Special population women with 60+ unit certificate degrees in Nursing/Dental decreased the earnings gap from 63% to 12% by the second year out, and those with AA degrees decreased the gap from 71% to 6%.
- Special population women who exited with an AS degree in Nursing/Dental only had a 22% gap in median annual earnings with non-special population women before coming to college and actually earned slightly more than non-special population women two years after exiting.
- The earnings of special population and non-special population women who completed 18-60 unit certificates in Nursing/Dental had considerably lower median annual earnings after exit than women with higher level Nursing/Dental degrees (not reaching more than \$25,000 by the second year out of school). However, the percentage gap in earnings between special population and non-special population women with Nursing/Dental certificates narrowed considerably nonetheless

Lifespan (See Figure 8-9, p.A-7 of Appendix)

Like women in Nursing/Dental, special population women in Lifespan programs were able to substantially close the earnings gap over time. However, by the second year out of school, special population women in Lifespan programs only earned about half as much as special population women in Nursing/Dental programs. For special population women with the most lucrative credential in Lifespan (an AS), median annual earnings reached about \$18,000 by the second year out of school. Non-special population women with a similar credential earned about \$23,000 on average during the same time period.

Interestingly, certificates in Lifespan generated about the same earnings for special population women by the second year out, regardless of their length (\$17,371 for a 30-60 unit certificate, \$16,641 for a 18-30 unit certificate, \$17,442 for a 6-18 unit certificate, and \$17,075 for a certificate less than 6 units in length).

Business (See Figure 8-10, p.A-8 of Appendix)

Special population women in Business programs were also able to close the earnings gap with non-special population Business women over time, however in general they started college at more of a relative earnings disadvantage than did special population Nursing/Dental or Lifespan students.

- Prior to coming to school, the earnings gap between special population and non-special population Business women was 190% compared to 47% for Lifespan women and 55% for women in Nursing/Dental programs.
- While special population women in Business began college earning about the same as special population women in other fields (between \$5,000 and \$10,000), non-special population women in Business came to school making a lot more than non-special population women in other fields (about \$23,000 for non-special population women in Business compared to \$13,500 for those in Nursing/Dental and \$9,000 for those in Lifespan).
- On average, special population women in Business programs earned about \$21,000 by their second year out of college, and the gap with non-special population women (who earned about \$32,000 by the second year out) remained fairly substantial (53%).

Computer Information Sciences (CIS) (See Figure 8-11, p.A-9 of Appendix)

Earnings patterns for women in CIS were very similar to those of women in Business programs. There was a large difference in earnings between special population and non-special population women prior to attending college (154%) and the gap remained fairly substantial two years after exit (46%). Interestingly, women with 30-60 unit certificates in CIS earned about \$5,000 more than women with AS degrees by the second year out of school, even though they began college with approximately the same amount of median annual earnings.

Secretarial (See Figure 8-12, p.A-10 of Appendix)

Secretarial programs are in fact a sub-field of Business. However, so many women concentrate in Secretarial programs that it is worthwhile to analyze Secretarial programs separately from other Business programs.

- The pre-college earnings gap between special population and non-special population women who went into Secretarial programs was relatively large prior to college attendance (204%), but earnings for both groups were fairly low (about \$5,000 for special population women and \$15,000 for non-special population women).
- Two years after exit, special population women were making about \$17,600, while non-special population women earned about \$25,000.
- Non-special population women with Associate Secretarial degrees made about \$20,000 by the second year out of school, while special population women with shorter length credentials (18-60 units) made between \$15,000 and \$20,000.

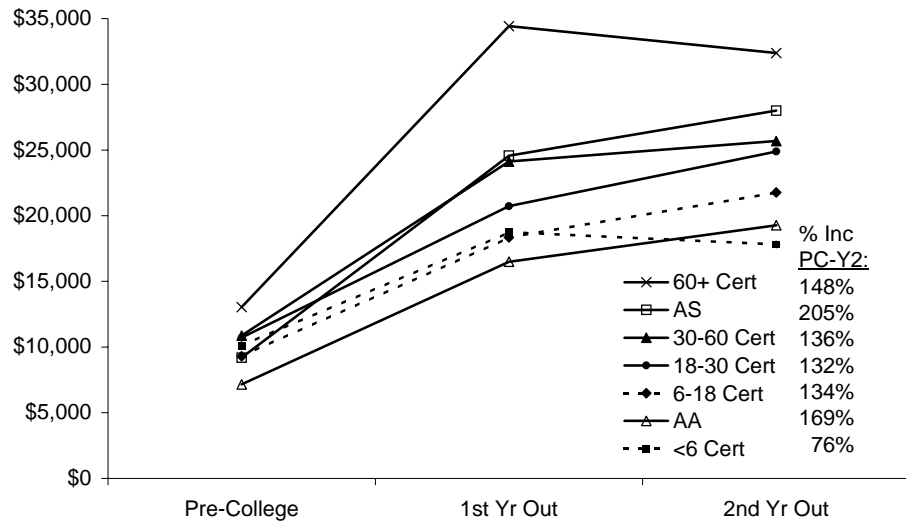
Special Population Men (Combined)

Special population men also substantially increased their earnings from before to after college earnings (See Figure 8-13).

- Prior to entering school, the median annual earnings of special population men was \$9,561. The first year after exiting, median annual earnings had risen to \$21,467 and by the second year out the median was \$23,763 (an increase of 149% from pre-college to the second year out of school).
- Looking at the outcomes of special population men by educational attainment, special population men leaving with 60+ unit certificates or AS degrees saw the highest earnings after exit, while special population men with shorter certificates and AA degrees saw lower earnings increases.

Figure 8-13

Median Annual Earnings of Special Population Men
Exiting in 1999-2000 in any Field, by Educational Attainment



Special Population Men (Five Group Comparison)

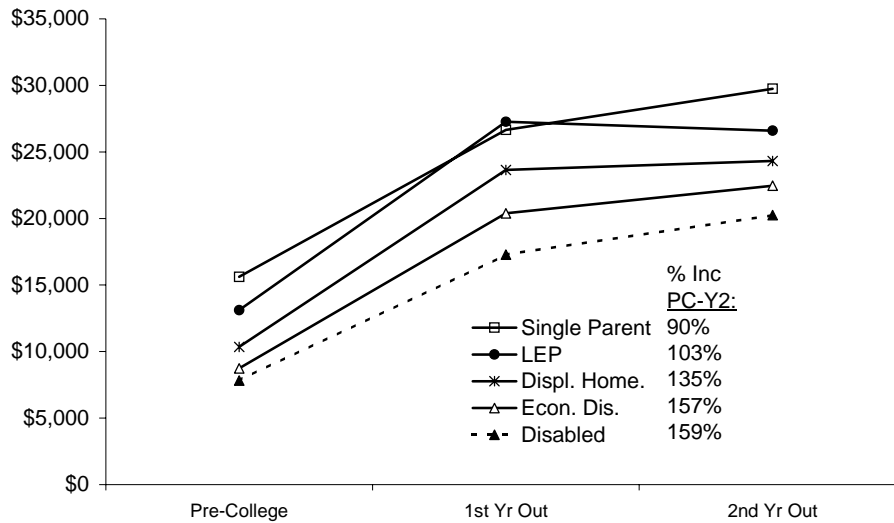
Overall, special population men in the five groups had a very similar distribution of earnings as special population women (single parents with the greatest earnings, followed by LEP, economically disadvantaged and displaced homemakers, and then disabled students). However, for men, there was a much wider variation in earnings between the five special population groups than there was for women (See Figure 8-14 below).

- Among special population men, the difference in second year out median annual earnings between the disabled group and the single parent group was \$9,504, which is double the difference between single parent and disabled women (\$4,788).

This indicates that particular special population statuses may matter more for men than they do for women. Only disabled men and economically disadvantaged men had earnings similar to their female counterparts; single parent, LEP and displaced homemaker men all made considerably more both prior to attending college and after exit.

Figure 8-14

Median Annual Earnings of Special Population Men
Exiting in 1999-2000 in any Field, All Attainment Levels



Although there was not a large enough sample size among displaced homemaker and single parent men to look at differences in their earnings trajectories by educational attainment, just looking at the remaining three groups (Economically Disadvantaged, LEP and Disabled) there is some indication that the spread in earnings between special population men is greater among those with AA degrees or certificates than it is among those with AS degrees (See Figures 8-15 to 8-18, p. A-11 and A-12 of Appendix).

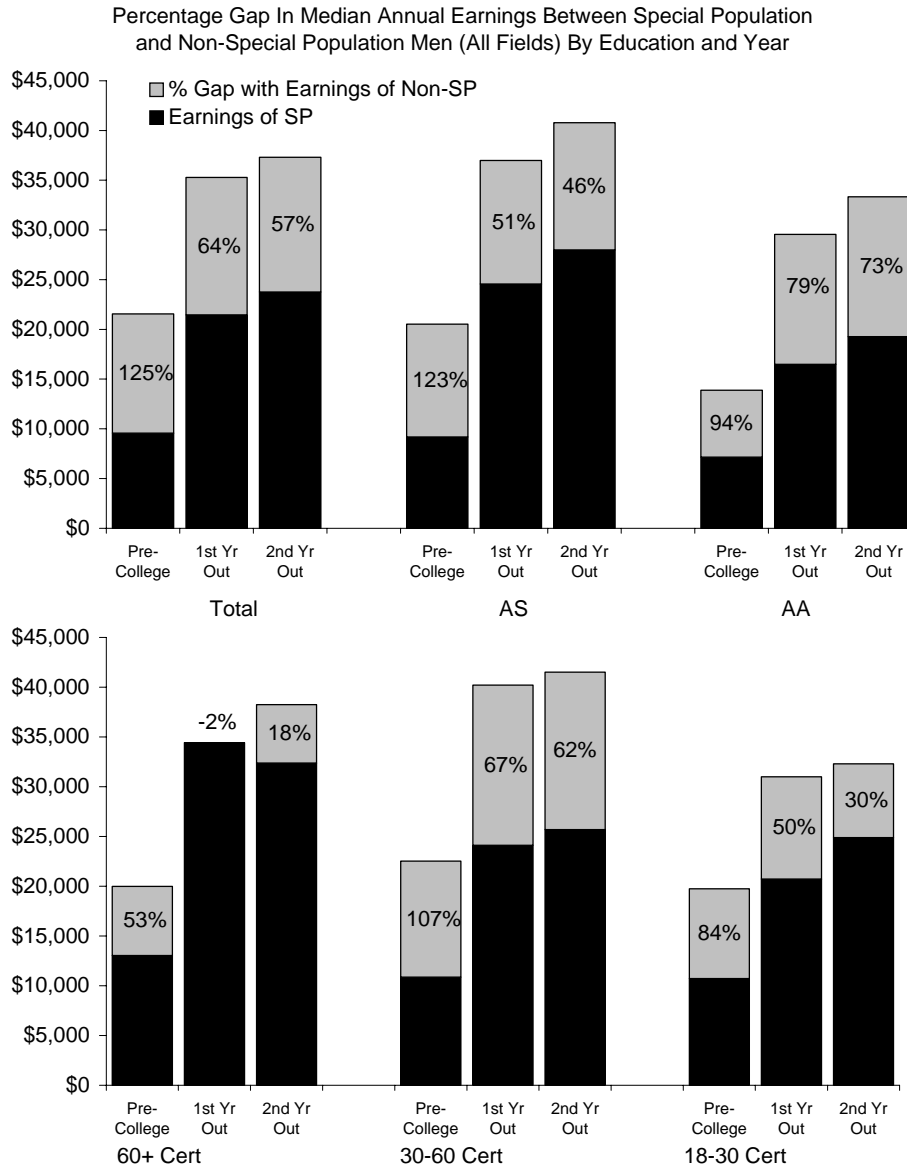
Special Population Men in Comparison to Non-Special Population Men, By Program and Educational Attainment¹¹

Like special population women, special population men also narrow the pre-college earnings gap with their non-special population counterparts after having attended school (See Figure 8-19 below).

- Special population men of any program or educational attainment level narrowed their pre-college earnings gap with non-special population men from 125% to 57% two years after exiting college.
- However, the existing gap (57%) was substantially greater than that among special population and non-special population women two years after exit (36%). While special population women decreased their gap by 86 percentage points from pre-college to second year out, special population men only saw a 68 percentage point reduction.

- Men who had attained 60+ certificates or 18-30 certificates had somewhat smaller earnings gaps by the second year out than men with other levels of educational attainment, however they also started out with less of a difference in earnings prior to attending school.

Figure 8-19



Nursing/Dental (See Figure 8-20, p.A-13 of Appendix)

- Special population men in a variety of Nursing/Dental programs earned a median of \$40,165 the second year out of school – about \$10,000 more than special population women in Nursing/Dental programs.
- By the second year out, the earnings gap with non-special population men held at 36%, down 20 percentage points from the year prior to college entrance. This gap was somewhat higher than for women, who had a 16% gap by the second year out.
- While special population women with AS degrees and 30-60 unit certificates in Nursing/Dental were able to completely eliminate the earnings gap with non-special population women by the second year out of school, special population men with those credentials still had gaps to close with non-special population men by the second year out of school.

Business (See Figure 8-21, p.A-14 of Appendix)

Special population men in Business programs were more on par with earnings of special population women both before coming to college and after college exit. However:

- While special population Business men had less of an earnings gap with non-special population Business men prior to attending school than their female counterparts (a 113% gap for men compared to a 190% gap for women), they were not able to close the gap as much as special population women were able to.
- By the second year out of school, special population men in Business still had a 61% earnings gap with non-special population men in Business (a 52 percentage point reduction in the gap), while special population women in Business had a 53% earnings gap with non-special population women after two years out (a 137 percentage point reduction in the gap).

Special population men who received shorter certificates seemed to be the most different from non-special population men, both prior to entering college and after college exit.

- Before entering college, non-special population men who earned 30-60 unit certificates were already making about \$28,000. By contrast, special population men were only earning about \$11,000 prior to attending school.

- After exiting, non-special population men increased their earnings to about \$35,000 while special population men had a median of about \$17,000-\$20,000

Computer Information Sciences (CIS) (See Figure 8-22, p.A-15 of Appendix)

- Special population men who enrolled in CIS were making approximately \$10,000 prior to entering college in comparison to non-special population men, who were earning about \$25,000 the year before entry (a 171% earnings gap).
- Special population men were able to close this earnings gap by 117 percentage points by the second year out of college. This reduction in the earnings gap was similar to special population women in CIS (108 percentage points).
- No matter what educational attainment, special population men in CIS still retained a significant gap in earnings with non-special population men two years after exit, ranging from a low of 38% among AS degree holders to a high of 79% among 30-60 unit certificate holders.
- AS degrees and 18-30 unit certificates in CIS appear to offer a somewhat greater earnings payoff by the second year out of college than AA degrees or 30-60 unit certificates in CIS

Engineering (See Figure 8-23, p.A-16 of Appendix)

Special population men in Engineering fields earned an average of \$24,000 by the second year out of college compared to non-special population men, who earned about \$35,000 (a 50% gap). Within particular educational categories, special population men still lagged behind non-special population men after exiting college with a new credential. However they did make substantial gains in narrowing the gap nonetheless.

- Prior to attending college, special population men who eventually left with an 60+ unit certificate earned \$13,000, and had an 80% gap with non-special population men who exited with the same credential.
- The first year after exit, special population men had closed the gap in median annual earnings to 50%, and by the second year out, to 30%.

- Special population men who exited with other Engineering credentials saw similar increases in earnings relative to their non-special population counterparts

Administration of Justice (AOJ) (See Figure 8-24, p.A-17 of Appendix)

There was a large gap in earnings between special population and non-special population men in AOJ programs the year prior to entering college (157%).

- While special population men earned about \$12,000, non-special population men earned about \$30,000.
- While this gap had shrunk to 73% by the second year out, the overall difference in earnings was substantial (\$50,000 median for non-special population men compared to about a \$30,000 median for special population men).
- Looking within educational attainment categories, the gap was still substantial among those with AS, AA and 30-60 unit certificates in AOJ (86-88%), but was considerably smaller between special population and non-special population men exiting with 18-30 unit certificates in AOJ (21% gap)

Traditional Occupation (TO) vs. Non-Traditional Occupation (NTO) Programs for Women and Men

In general women in non-traditional occupation programs earn more than women in traditional occupation programs both before and after exiting college. However, there is an exception for women in (traditional) Nursing occupations. By the second year out of school, women in Nursing earn more than women in non-traditional occupation programs such as Engineering.

Men in traditional occupations earn slightly more than men in non-traditional occupations although the difference in earnings is not as large compared to the difference in earnings between women in traditional occupation and women in non-traditional occupation programs. Again, with men there is also an exception for nursing. Men in (non-traditional occupation) Nursing programs earn substantially more than men in (traditional occupation) Engineering programs. (See Figures 8-25 and 8-26 below).

The figures below are for all educational attainment levels combined. However, the pattern holds true within particular levels of education as well. For instance, men and women with AS degrees in Nursing earn more than their counterparts with AS degrees in Engineering.

Figure 8-25

Median Annual Earnings of Traditional and Non-Traditional Women Exiting in 1999-2000, All Educational Attainment Levels

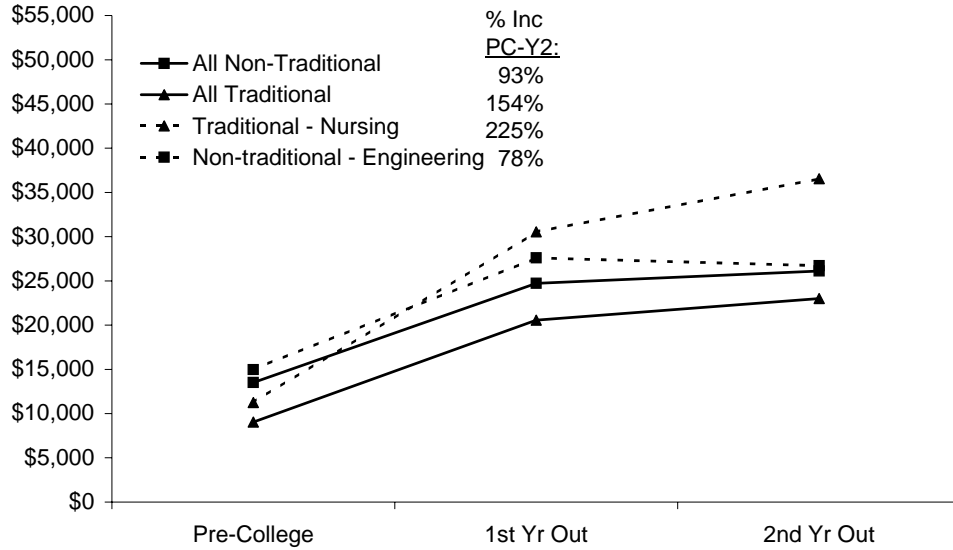
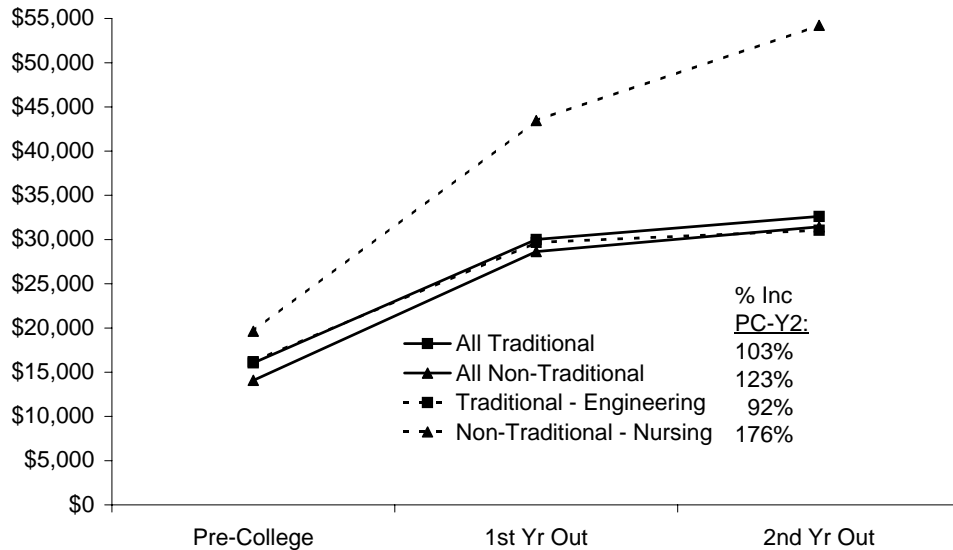


Figure 8-26

Median Annual Earnings of Traditional and Non-Traditional Men Exiting in 1999-2000, All Educational Attainment Levels



Gender Gap in Attainment (TO and NTO Fields)

Traditional Occupation Men (TO) and Non-Traditional Occupation (NTO) Women

TO men typically earned more than NTO women, even when holding educational attainment constant. In addition, there may be some evidence that the earnings gap between NTO women and TO men grows after college exit, rather than declines (See Figure 8-27).

- Looking at a combination of all fields and educational attainment levels, NTO women began school at a 19% disadvantage with TO men.
- After the first year out of college, both men and women increased their earnings substantially, but NTO women were at a 21% disadvantage.
- By the second year out, both men and women increased their earnings again, but this time the percentage gap had increased to 25%.
- The increasing earnings gap does not occur for all levels of educational attainment. It occurs primarily among NTO women and TO men who received AA degrees, 30-60 unit certificates, 6-18 unit certificates, and those who completed some units without getting a credential (24+ units and 12-23.99 units). By contrast, AS degree holders and 18-30 unit certificate holders do not see an increasing gap¹² (See Figure 8-27).

What accounts for the increasing gap in earnings between TO men and NTO women?

- While both women and men see an increase in earnings from year one to year two, the increasing gap between NTO women and TO men appears to exist because men's earnings increase faster than women's earnings over time.
- If we just look at NTO women and TO men in Engineering fields, it appears that the increasing gap is generated by both an increase in men's earnings and a *decline* in women's earnings from the first to second year out. In fact, only women with 18-30 unit certificates did not see a decline in median annual earnings between the first and second years out of school (See Figure 8-28).
- Non-traditional occupation women in Administration of Justice (AOJ) programs are more likely to see a decreasing gap with TO men in AOJ programs at the higher level credentials.

However, they also see an increasing gap at lower levels (6-18 unit certificates, and 24+ units or 12-23.99 units without a degree). The increase in the earnings gap for those groups was only caused by a decline of women's earnings for the 6-18 unit group, not for the others (See Figure 8-29).

Figure 8-27

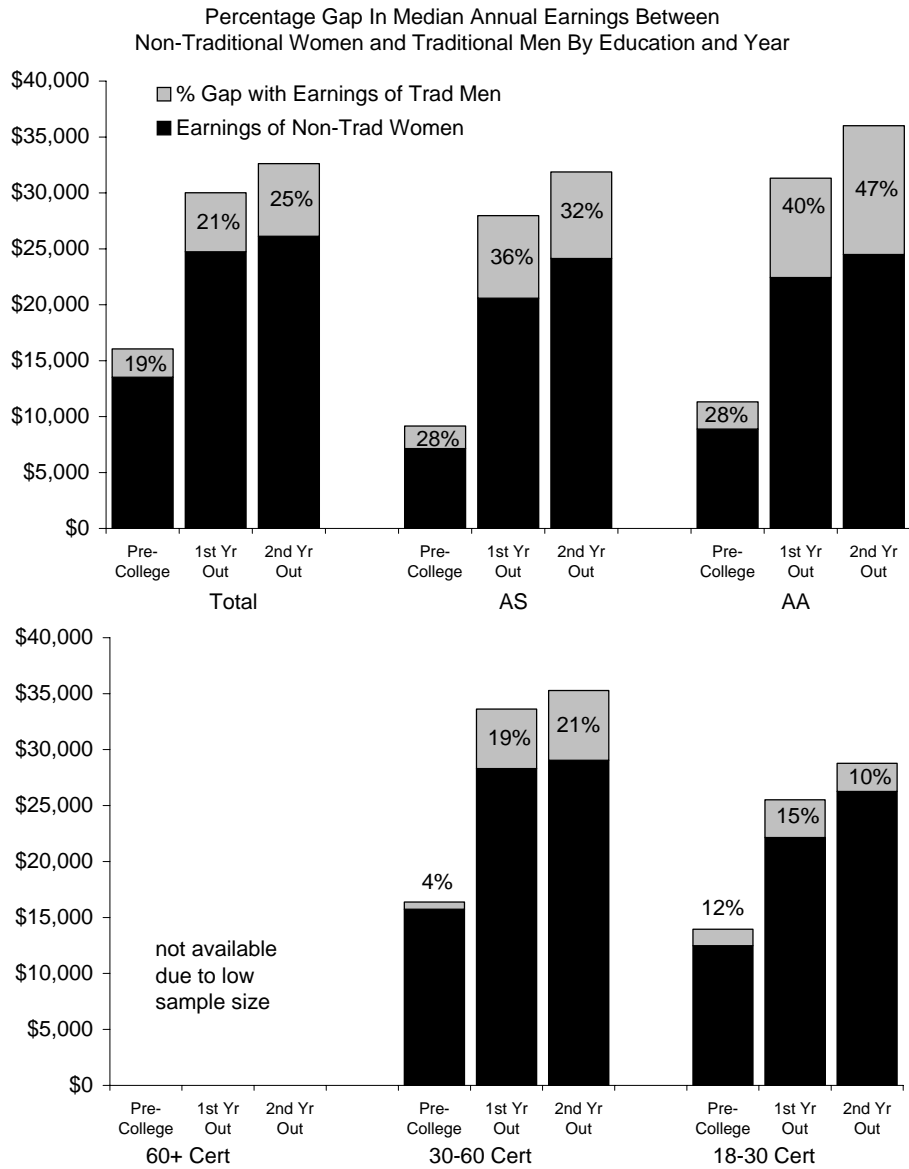


Figure 8-28

Percentage Gap In Median Annual Earnings Between Traditional Men and Non-Traditional Women in Engineering By Education and Year

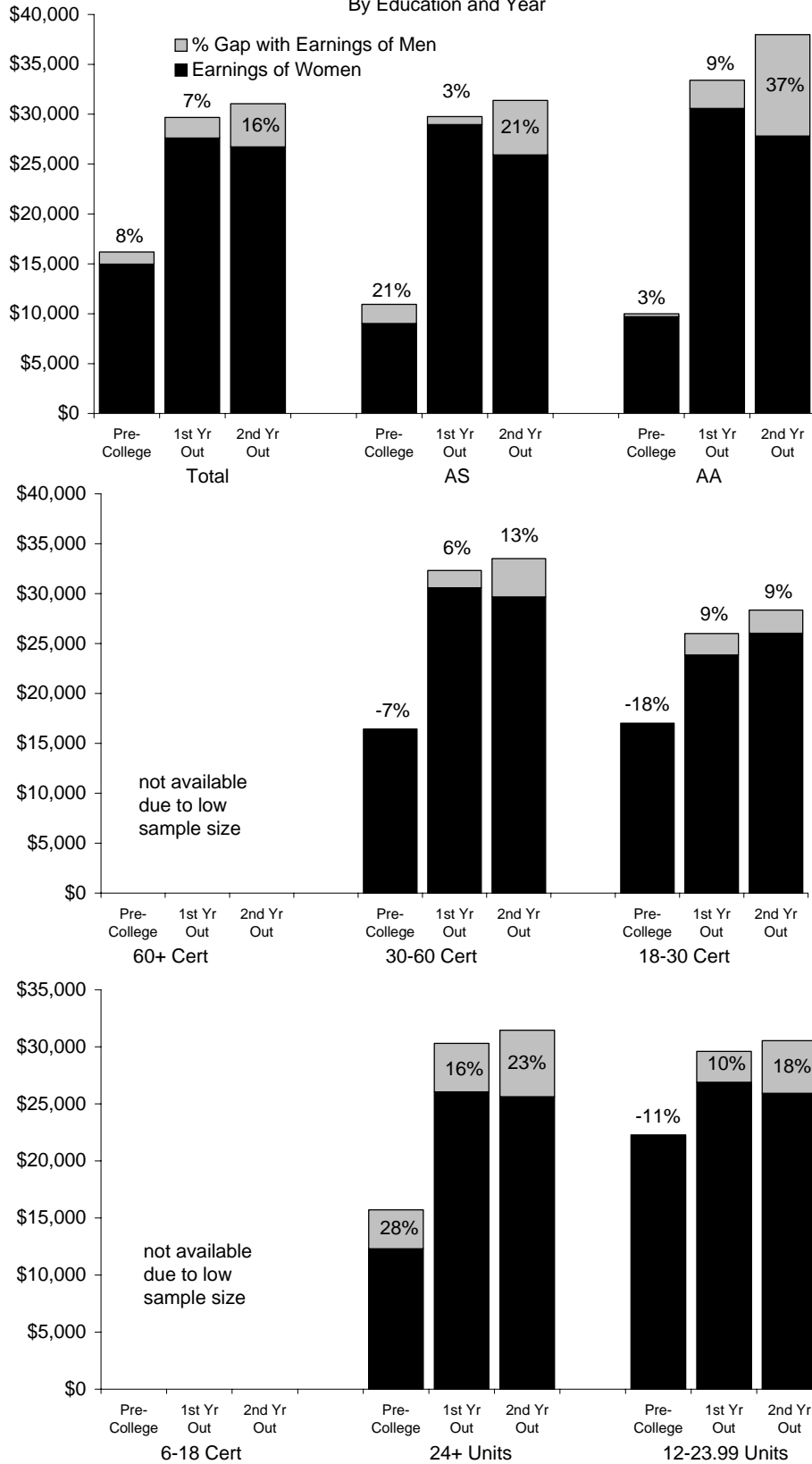
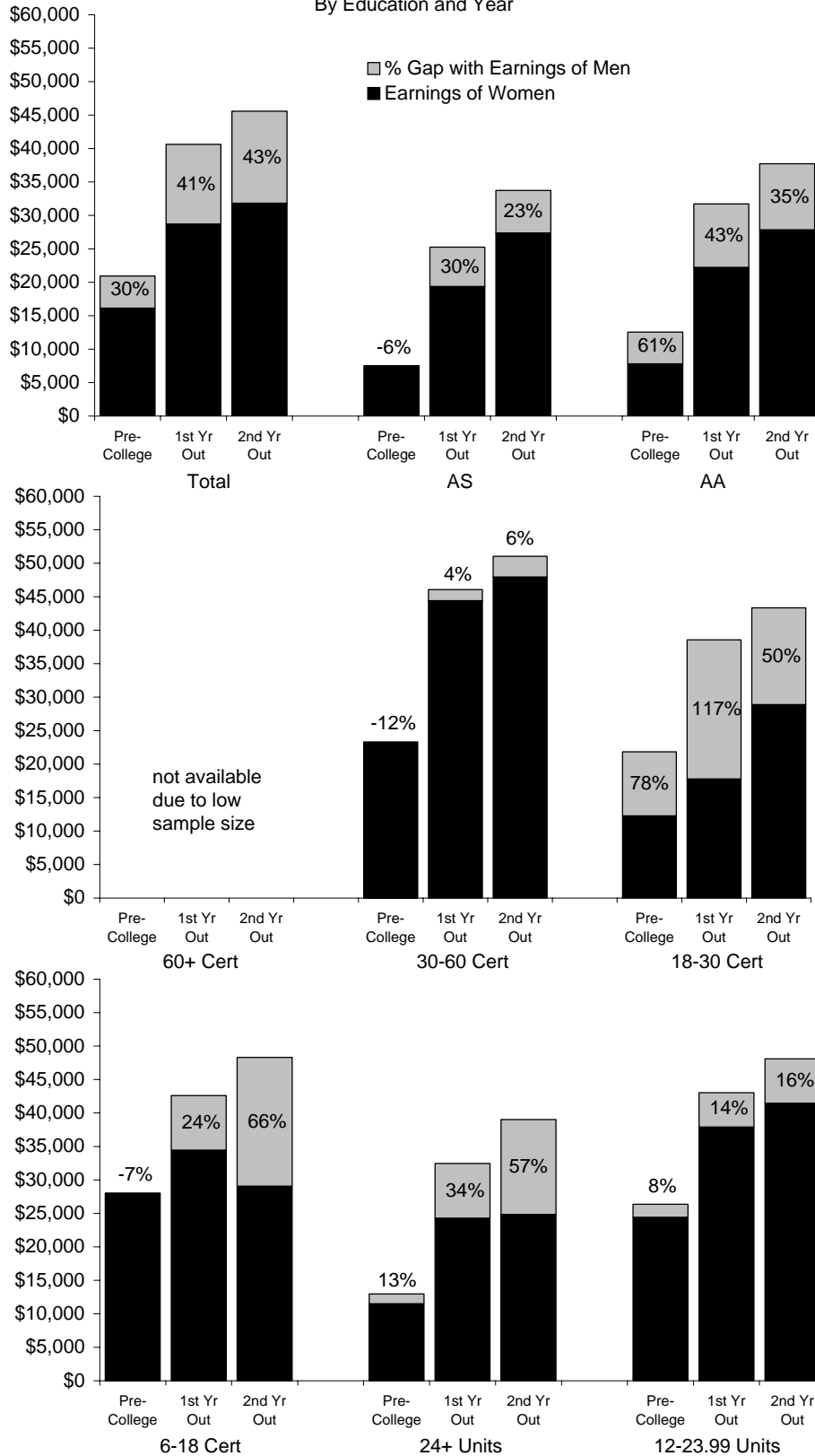


Figure 8-29

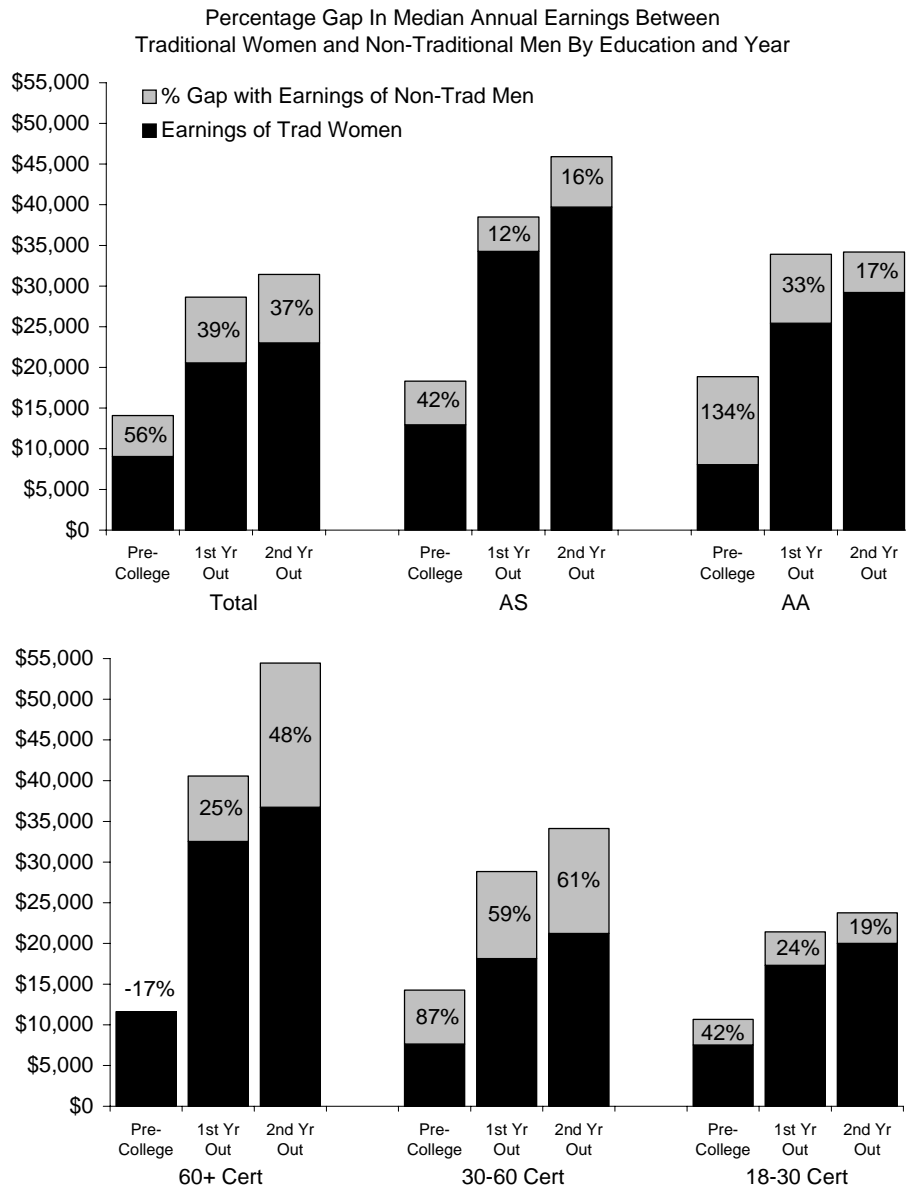
Percentage Gap In Median Annual Earnings Between Traditional Men and Non-Traditional Women in Administration of Justice By Education and Year



Traditional Occupation (TO) Women and Non-Traditional Occupation (NTO) Men

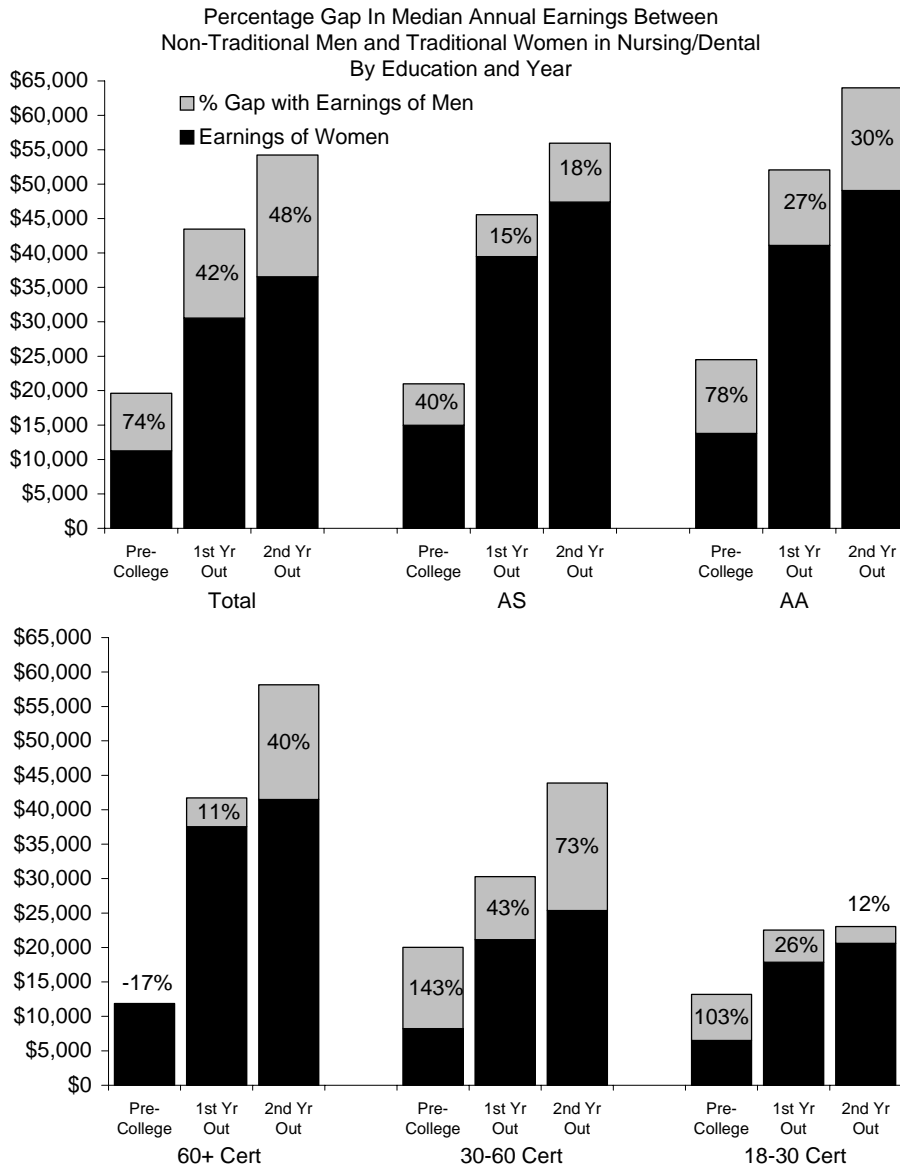
For all fields and levels of educational attainment, TO women earn less than NTO men both prior to college entrance and after college exit. While the gap in earnings drops substantially from pre-college to the first year out of school, it does not close very much between the first and second years out, and in some cases increases – particularly for TO women and NTO men earning an AS, 60+ unit certificate, and 30-60 unit certificate (See Figure 8-30).

Figure 8-30



Just looking at TO women and NTO men in Nursing/Dental programs, we can see that overall, women's earnings increase from the first to second year out of school, but the percentage gap with the earnings of men increases from 42% to 48% due to the faster rise of men's earnings over that time period. Looking at separate educational groups, this pattern is true for those with AS degrees, AA degrees, 60+ Certificates, and 30-60 unit certificates¹³ (See Figure 8-31).

Figure 8-31



IX. Conclusions and Policy Implications

Summary of Findings

Background Characteristics

Special Population students generally come to college at greater academic and economic disadvantage than non-special population students.

- They are more likely to enter without a high school degree, are less likely to be employed before coming to school.
- Among those who are employed, special population students earn considerably less than students who do not fall into any special population group.
- A large proportion of single parents, displaced homemakers, LEP, and disabled students are also considered economically disadvantaged. Male non-traditional occupation (NTO) students are older, more likely to be economically disadvantaged, and are less likely to have a high school diploma at college entry than traditional occupation (TO) male students. Female NTO students, on the other hand, are less likely than TO women to be considered economically disadvantaged but are similar to TO women in terms of education at entry.

Educational Attainment

- In general, special population students who leave with at least 12 units of coursework are similar to or even have a slight edge over non-special population students in terms of the amount of education they receive while in college. There is an exception for NTO women, who are less likely to exit with an Associate degree than TO women (but more likely to exit with an Associate degree than TO men).

Educational Programs

- There is some evidence that the fewer units required for the credential special population women complete, the less similar they are in terms of program field to non-special population women, and the less lucrative the programs they are in. With only a few exceptions, short term programs have decreasing impact on earnings gains.

Employment

- Special population women and men both increase year-round employment over time and close the employment gap relative to non-special population counterparts. However, special population women may close the gap more quickly than special population men do.
- In general, special population women see a stronger association between the amount of education they receive and their ability to increase year-round employment and close the employment gap than do special population men. However, this may have to do more with the types of programs they are in than their gender, because NTO women do not see the same association between educational attainment and year-round employment rates as do TO women.

Earnings Increases

- Both special population women and men substantially increase median annual earnings from the year prior to entering college to two years after college exit (182% for women and 149% for men).
- Looking at all program types together, the 60+ unit certificate and AS degree appear to have more pay-off than other credentials, and this is true for both women and men.

Variation in Earnings Among Special Population Groups

- There is a much wider variation in the earnings between different special population groups among men than there is among women, indicating that the particular special population group that students are in matters more for men than it does for women. However, in general, disabled women and men appear to be at a substantial earnings disadvantage after attending college relative to other special population groups. This could be due to a compound effect of their initial economic disadvantage in addition to their disability.

Closing the Earnings Gap with Non-Special Population Students

- Both special population women and men close the earnings gap with their non-special population counterparts over time, however as with year-round employment, the gap does not narrow as much for men as it does for women.

- Special population women in Nursing/Dental programs are able to considerably narrow the earnings gap within two years.
- While the earnings gap between TO women and NTO men drops substantially between the year prior to college entry and the first year out of school, it does not close very much between the first and second year out.
- Finally, there is some evidence that the earnings gap between NTO women and TO men grows between the first and second year after college exit, rather than declines. For women in Engineering, the growth in the earnings gap is due to a decline in their own earnings as well as a rise in the earnings of engineer men.

Analysis and Policy Recommendations

Despite economic, academic, and demographic disadvantages, special population students who receive vocational training in California community colleges are able to successfully narrow the earnings and employment gap relative to non-special population students just one to two years after attending school.

However, among different special population groups, students with disabilities appear to have the lowest economic success after exiting college. Close to 70% of disabled students were considered to be economically disadvantaged while attending school. This undoubtedly contributes to the lower post-college economic success of disabled students. In addition to disabled students, findings from this study also show that an overwhelming proportion of female single parent students are economically disadvantaged while in school (87%). Because of these findings, it is extremely important to begin to devote additional financial aid, academic support, and other service outreach toward disabled students and single parent women.

Findings from this study show a clear, positive association between educational attainment and steady employment among women in traditionally female dominated occupation programs. Therefore, it may be worthwhile to encourage special population women to pursue longer length certificates or Associate degrees and to provide them the services necessary to pursue and attain that goal.

With the exception of Nursing, earnings of female students in programs traditionally dominated by males are typically higher than women in traditionally female occupational fields. However, data show that economically disadvantaged women are not as likely to go into non-traditional

programs as are more economically advantaged women. It therefore may be particularly prudent to aim policies at encouraging economically disadvantaged women to enroll in non-traditional occupation programs.

Despite the relatively higher earnings that women in non-traditional occupations receive, non-traditional occupation women continue to lag behind their male counterparts in traditionally male occupations. The colleges should therefore focus their attention on expanding career education opportunities for non-traditional occupation women.

Currently, special population women who exit from the community college system earn 85% of what men earn two years out of school (\$20,144 versus \$23,763). This is slightly better than the national figure of 78%, but it is still not equal. Encouraging and supporting women's choices of more lucrative high unit requirement credentials would help close the gender earnings gap. In general, administrators and policymakers need to promote and encourage the institutionalization of programs aimed at serving special population students to ensure that these men and women continue to prosper in their careers after college exit.

End Notes

¹ Although many students take non-credit coursework, for purposes of this study we restrict the universe of exiting students to those who enrolled in at least one credit course.

² California Special Populations, “Who We Serve, Learners with Disabilities”, www.casp.cc

³ California Special Populations, “Who We Serve, Limited English Proficient Learners”, www.casp.cc

⁴ California Community Colleges Data Element Dictionary, Student VTEA Elements, SV04, SV05.

⁵ Lifespan classes cover nature, functions and significance of human relationships in the family and society; and the study of individuals and their physical, mental, emotional, and social growth and development. Includes classes in child development, exceptional children (special needs), gerontology, and nanny training (California Community Colleges Taxonomy of Programs Reference Manual, 5th edition).

⁶ Does not include Secretarial programs.

⁷ Broadly defined fields (with multiple programs within them) can often be considered both traditional and non-traditional for the same gender or they be classified neither traditional nor non-traditional. Therefore, when comparing traditional and non-traditional women and men, I also employ a non-traditional/traditional flag, so for instance in picking out traditional women in nursing programs, I take women who are flagged as “Traditional” and are also in nursing.

⁸ Employment in this case is defined as non-zero earnings in one or more quarters of the time period.

⁹ The difference in the percentage employed both the first and second year after school between special population and non-special population students was 7 percentage points overall, 2 percentage points among special population and non-special population women (70% vs. 72%), and 11 percentage points between special population and non-special population men (69% vs. 80%).

¹⁰ Note on demographic differences between special population and non-special population women who were employed during all three periods: Non-special population women were on average 32 years of age the last year in school compared to special population women, who were on average 31 years of age at college exit. About 55% of non-special population women were white compared to only 39% of special population women, and 89% of non-special population women had a high school diploma at entry compared to 84% of special population women. These differences no doubt contribute to the earnings gap.

¹¹ Note on demographic differences between special population and non-special population men who were employed during all three periods: Non-special population men were on average 30 years of age the last year in school compared to special population men, who were on average 29 years of age at college exit. About 53% of non-special population men were white compared to only 35% of special population men, and 87% of non-special population men had a high school diploma at entry compared to 84% of special population men.

¹² Sample size was too low to get an impression for 60+ unit certificate holders.

¹³ The pattern is only not true for those with 24+ units but no credential. In this case the gap between women and men closed from 37% to 28% between the first and second year out. There

was not enough sample size to observe those with certificates of 18 units or less or those with 12-23.99 units without a degree.

Appendix

Table 3-1

Demographics of All Vocational Students Exiting in 1999-2000

	Female	Mean Age	No HS at Entry	Asian	Black	Hispanic	White	Other	Minority
5 Special Populations									
Not Special Population	48.0	31	9.1	8.8	5.1	19.7	53.9	7.6	46.1
Special Population	64.3	31	13.0	15.1	11.4	26.2	37.1	6.4	62.9
Total	55.9	31	11.0	11.8	8.1	22.8	45.8	7.0	54.2
Limited English Proficient									
Not Enrolled or Identified ESL	55.2	31	10.6	8.4	8.6	22.5	48.6	7.3	51.4
Enrolled or Identified ESL	62.7	32	14.3	46.3	2.9	25.7	17.8	4.4	82.2
Total	55.9	31	11.0	11.8	8.1	22.8	45.8	7.0	54.2
Economically Disadvantaged									
Not Econ Disadvantaged	49.4	31	9.2	11.3	4.9	19.8	51.6	7.4	48.4
Econ Disadvantaged	65.0	30	13.4	12.4	12.5	27.0	37.8	6.5	62.2
Total	55.9	31	11.0	11.8	8.1	22.8	45.8	7.0	54.2
Disabled									
Not Disabled	55.6	31	10.9	12.2	8.0	23.1	45.3	7.1	54.7
Disabled	62.0	35	13.0	4.0	10.4	17.9	57.1	5.7	42.9
Total	55.9	31	11.0	11.8	8.1	22.8	45.8	7.0	54.2
Single Parent									
Not Single Parent	57.4	31	11.3	16.5	8.7	23.9	38.6	6.7	61.4
Single Parent	82.0	32	15.3	6.6	18.8	25.4	39.3	6.6	60.7
Missing	52.8	31	10.4	10.0	6.8	22.1	49.9	7.2	50.1
Total	55.9	31	11.0	11.8	8.1	22.8	45.8	7.0	54.2
Displaced Homemaker									
Not Displaced Homemaker	60.3	31	11.9	15.2	10.2	24.1	38.6	6.7	61.4
Displaced Homemaker	76.3	35	12.3	9.9	12.0	24.9	41.2	6.5	58.8
Missing	52.8	31	10.4	10.0	6.8	22.1	49.9	7.2	50.1
Total	55.9	31	11.0	11.8	8.1	22.8	45.8	7.0	54.2

Table 3-2

Demographics of Female Vocational Students Exiting in 1999-2000

	Mean Age	No HS at Entry	Asian	Black	Hispanic	White	Other	Minority
5 Special Populations								
Not Special Population	32	8.8	9.4	5.4	18.4	54.8	7.2	45.2
Special Population	31	13.5	13.3	12.4	26.7	38.0	6.1	62.0
Total	31	11.4	11.6	9.2	23.0	45.5	6.6	54.5
Limited English Proficient								
Not Enrolled or Identified ESL	31	11.0	7.9	10.0	22.3	48.7	6.9	51.3
Enrolled or Identified ESL	32	15.1	44.0	2.8	28.5	17.9	3.9	82.1
Total	31	11.4	11.6	9.2	23.0	45.5	6.6	54.5
Economically Disadvantaged								
Not Econ Disadvantaged	32	8.8	12.7	5.2	18.7	51.8	6.9	48.2
Econ. Disad.	31	14.1	10.4	13.5	27.6	38.8	6.3	61.2
Total	31	11.4	11.6	9.2	23.0	45.5	6.6	54.5
Disabled								
Not Disabled	31	11.3	12.0	9.2	23.3	44.8	6.7	55.2
Disabled	36	13.6	4.1	10.6	17.0	58.3	5.4	41.7
Total	31	11.4	11.6	9.2	23.0	45.5	6.6	54.5
Single Parent								
Not Single Parent	32	11.9	16.3	9.7	24.6	38.1	6.3	61.9
Single Parent	32	15.6	5.8	19.9	24.8	40.7	5.8	59.3
Missing	31	10.5	9.9	7.5	21.9	50.1	6.8	49.9
Total	31	11.4	11.6	9.2	23.0	45.5	6.6	54.5
Displaced Homemaker								
Not Displaced Homemaker	31	12.7	14.5	11.9	24.7	38.1	6.3	61.9
Displaced Homemaker	36	12.6	8.2	11.9	24.5	44.8	5.8	55.2
Missing	31	10.5	9.9	7.5	21.9	50.1	6.8	49.9
Total	31	11.4	11.6	9.2	23.0	45.5	6.6	54.5
Non-Traditional Status								
Traditional	31	11.5	10.4	9.8	24.6	44.1	7.3	55.9
Non-Traditional	31	11.5	12.5	9.3	23.5	44.5	5.8	55.5
Not Enrolled in Trad/Non-Trad	32	11.3	12.5	8.7	21.4	47.0	6.1	53.0
Total	31	11.4	11.6	9.2	23.0	45.5	6.6	54.5

Table 3-3

Demographics of Male Vocational Students Exiting in 1999-2000

	Mean Age	No HS at Entry	Asian	Black	Hispanic	White	Other	Minority
5 Special Populations								
Not Special Population	30	9.4	8.1	4.8	20.9	53.2	7.9	46.8
Special Population	30	12.0	18.3	9.7	25.6	35.6	7.0	64.4
Total	30	10.4	12.1	6.7	22.7	46.4	7.6	53.6
Limited English Proficient								
Not Enrolled or Identified ESL	30	10.2	8.9	7.0	22.9	48.7	7.7	51.3
Enrolled or Identified ESL	31	13.1	50.3	3.1	21.0	17.7	5.2	82.3
Total	30	10.4	12.1	6.7	22.7	46.4	7.6	53.6
Economically Disadvantaged								
Not Econ Disadvantaged	30	9.5	10.1	4.7	21.0	51.4	7.8	48.6
Econ Disadvantaged	30	12.2	16.2	10.7	26.2	36.1	7.0	63.9
Total	30	10.4	12.1	6.7	22.7	46.4	7.6	53.6
Disabled								
Not Disabled	30	10.3	12.4	6.5	22.9	46.0	7.6	54.0
Disabled	34	12.1	3.9	10.1	19.5	55.2	6.2	44.8
Total	30	10.4	12.1	6.7	22.7	46.4	7.6	53.6
Single Parent								
Not Single Parent	30	10.6	16.6	7.4	23.1	39.4	7.2	60.6
Single Parent	32	13.8	10.4	13.8	28.4	33.2	10.2	66.8
Missing	30	10.2	10.2	6.1	22.4	49.8	7.6	50.2
Total	30	10.4	12.1	6.7	22.7	46.4	7.6	53.6
Displaced Homemaker								
Not Displaced Homemaker	30	10.8	16.2	7.7	23.4	39.3	7.3	60.7
Displaced Homemaker	33	11.2	14.9	12.4	26.1	29.9	8.7	70.1
Missing	30	10.2	10.2	6.1	22.4	49.8	7.6	50.2
Total	30	10.4	12.1	6.7	22.7	46.4	7.6	53.6
Non-Traditional Status								
Traditional	29	11.9	11.4	6.0	26.9	44.0	7.3	56.0
Non-Traditional	32	8.5	14.0	8.0	21.3	41.9	10.5	58.1
Not Enrolled in Trad/Non-Trad	30	9.2	12.4	7.1	18.7	49.7	7.2	50.3
Total	30	10.4	12.1	6.7	22.7	46.4	7.6	53.6

Figure 8-3

Median Annual Earnings of Special Population Women
Exiting in 1999-2000 with an AS in any Field

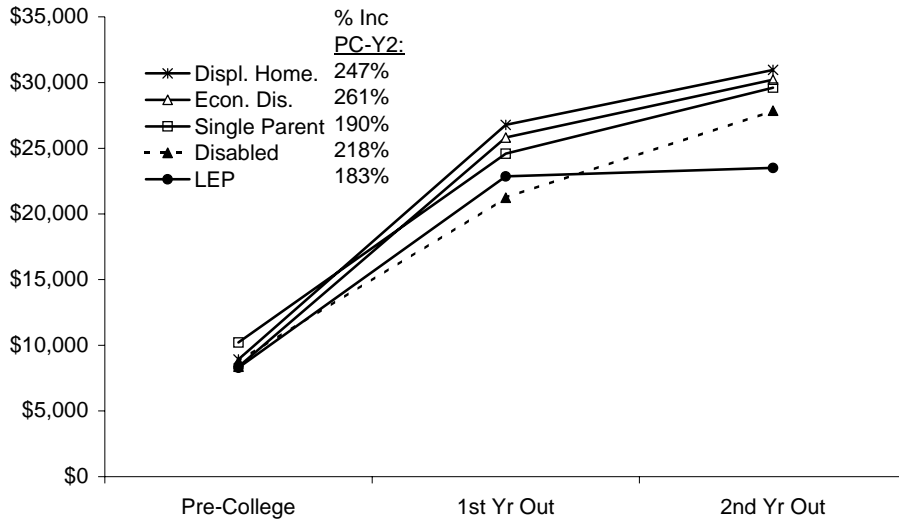


Figure 8-4

Median Annual Earnings of Special Population Women
Exiting in 1999-2000 with an AA in any Field

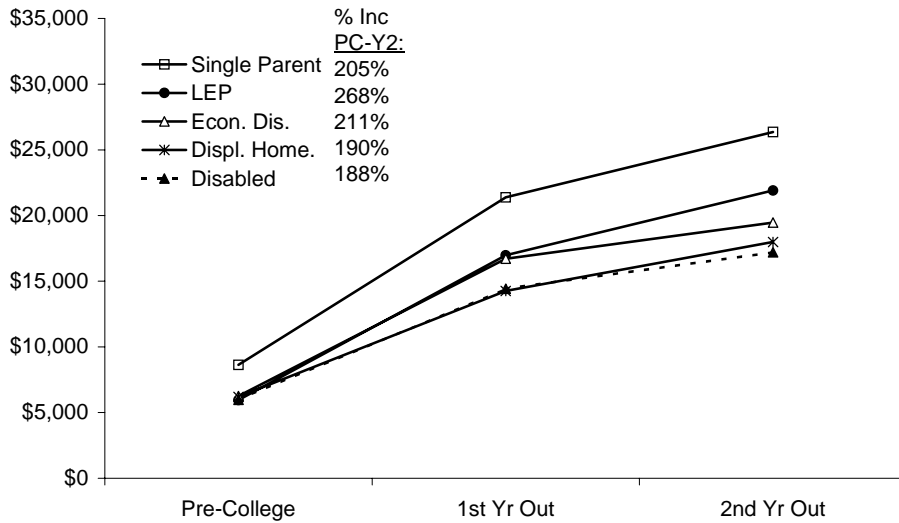


Figure 8-5

Median Annual Earnings of Special Population Women
Exiting in 1999-2000 with a 30-60 Unit Certificate in any Field

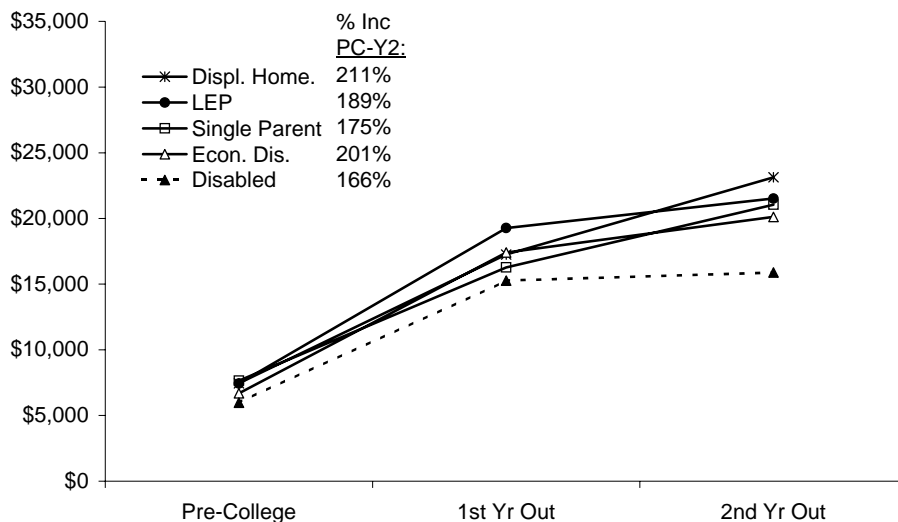


Figure 8-6

Median Annual Earnings of Special Population Women
Exiting in 1999-2000 with an 18-30 Unit Certificate in any Field

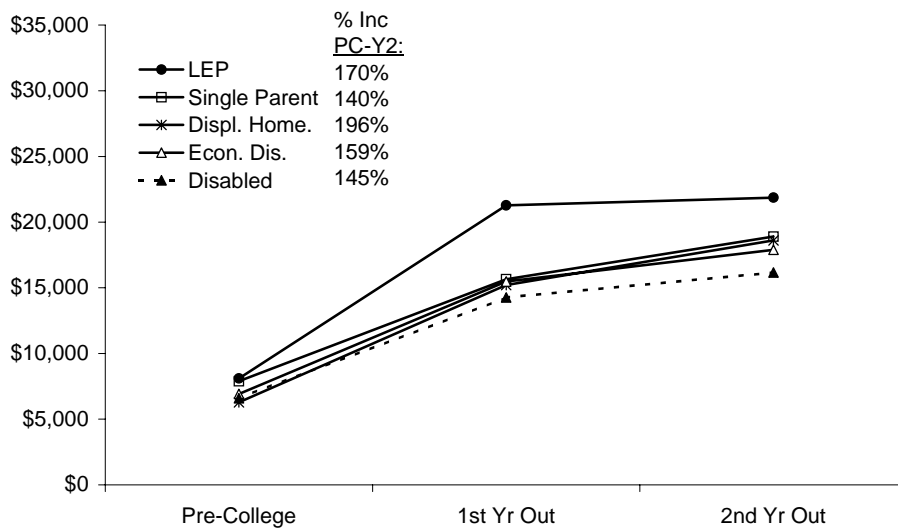


Figure 8-8

Percentage Gap In Median Annual Earnings Between
Special Population and Non-Special Population Women (Nursing/Dental)
By Education and Year

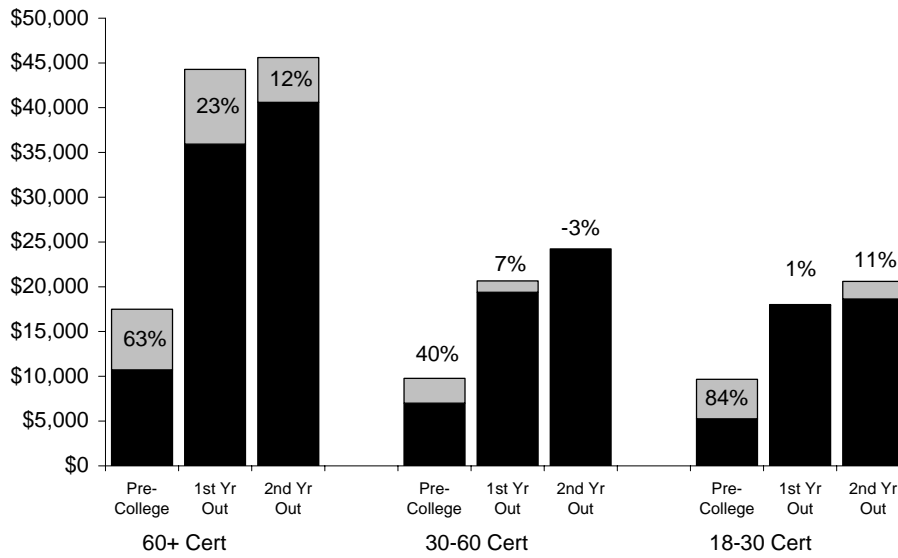
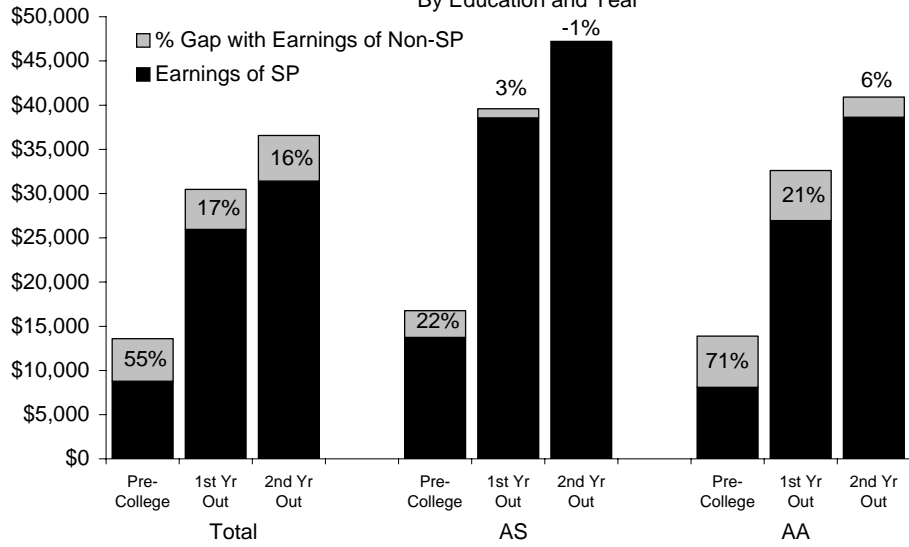


Figure 8-9

Percentage Gap In Median Annual Earnings Between Special Population and Non-Special Population Women (Lifespan) By Education and Year

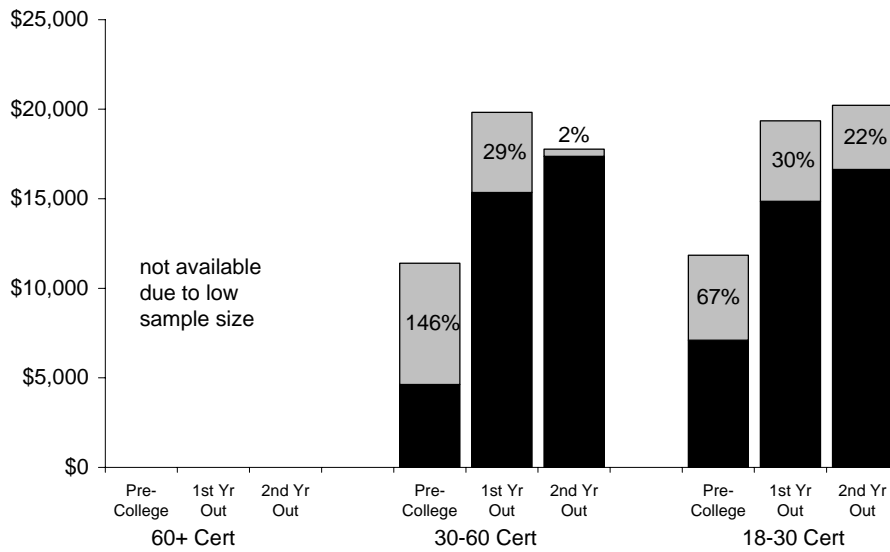
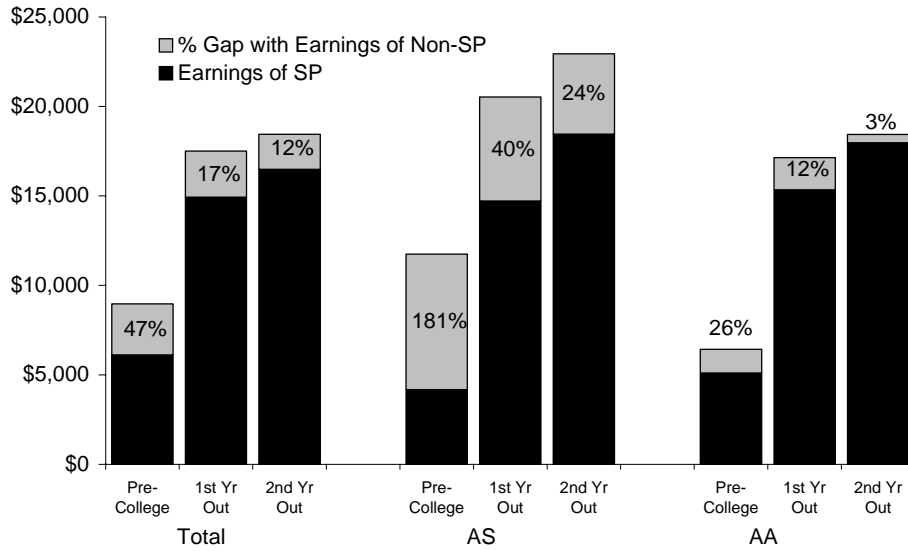


Figure 8-10

Percentage Gap In Median Annual Earnings Between Special Population and Non-Special Population Women (Business) By Education and Year

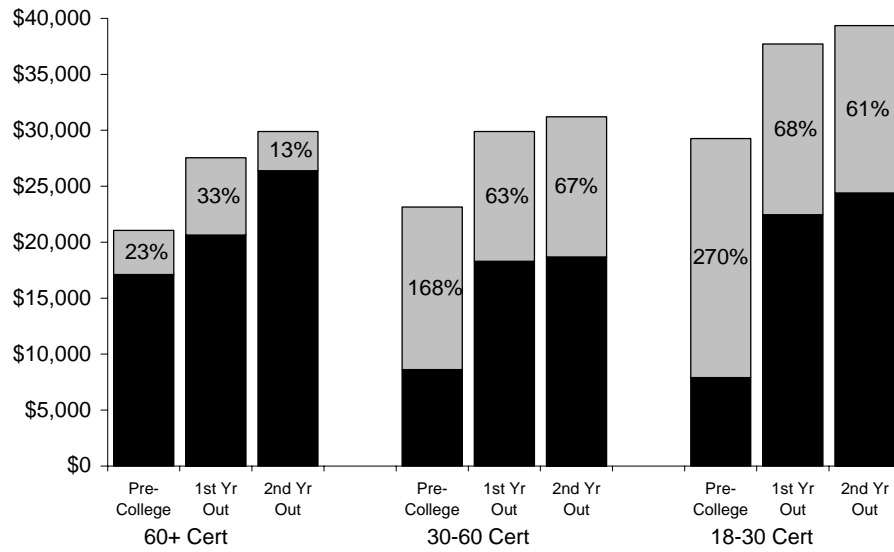
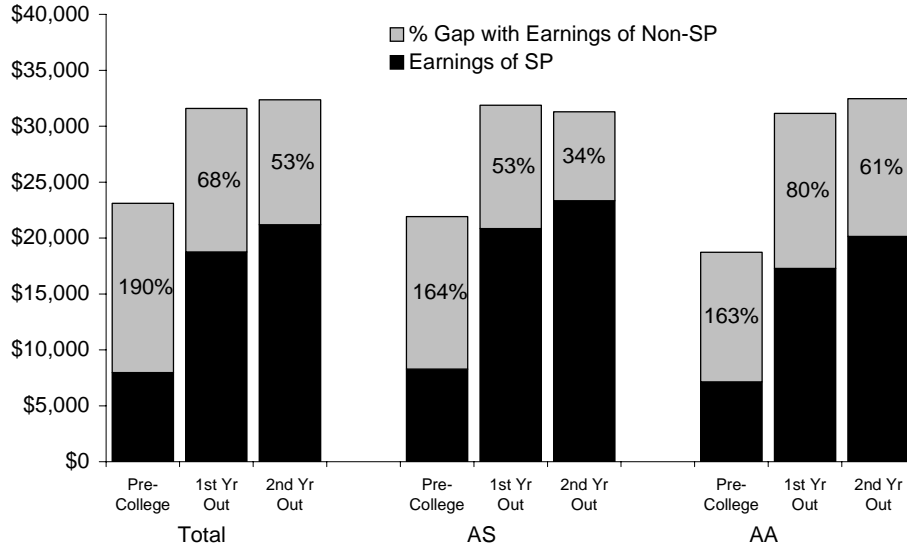


Figure 8-11

Percentage Gap In Median Annual Earnings Between Special Population and Non-Special Population Women (Computer) By Education and Year

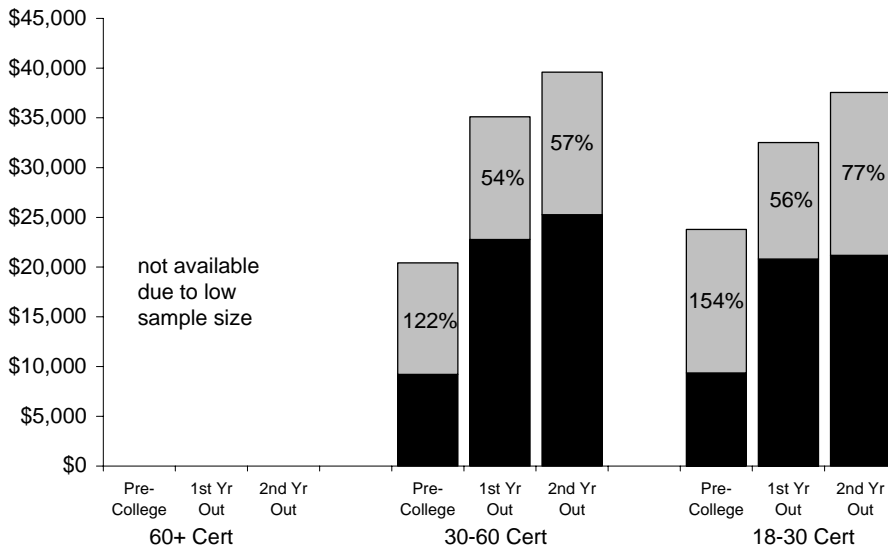
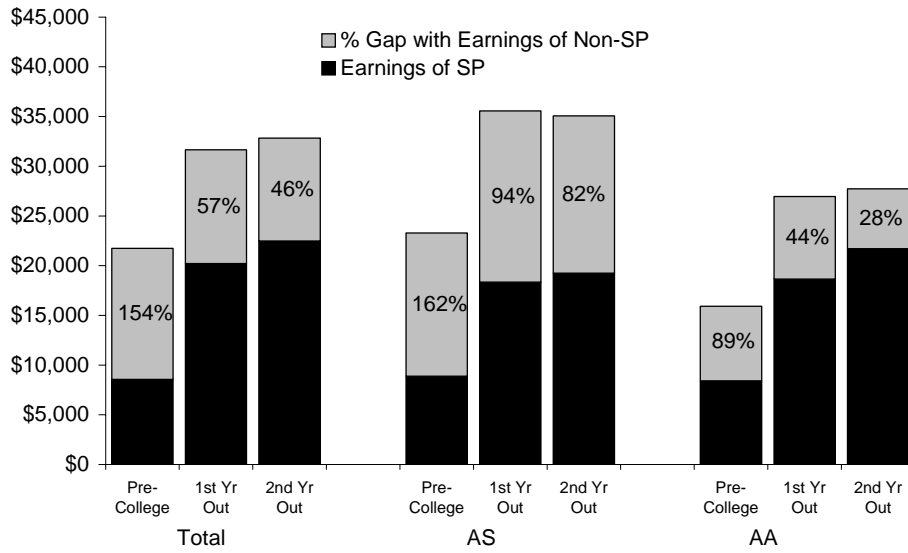


Figure 8-12

Percentage Gap In Median Annual Earnings Between Special Population and Non-Special Population Women (Secretary) By Education and Year

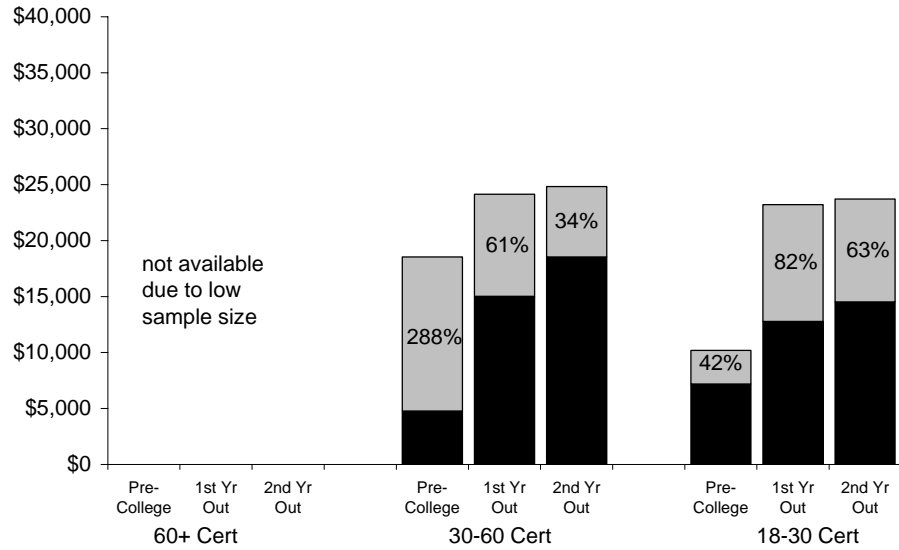
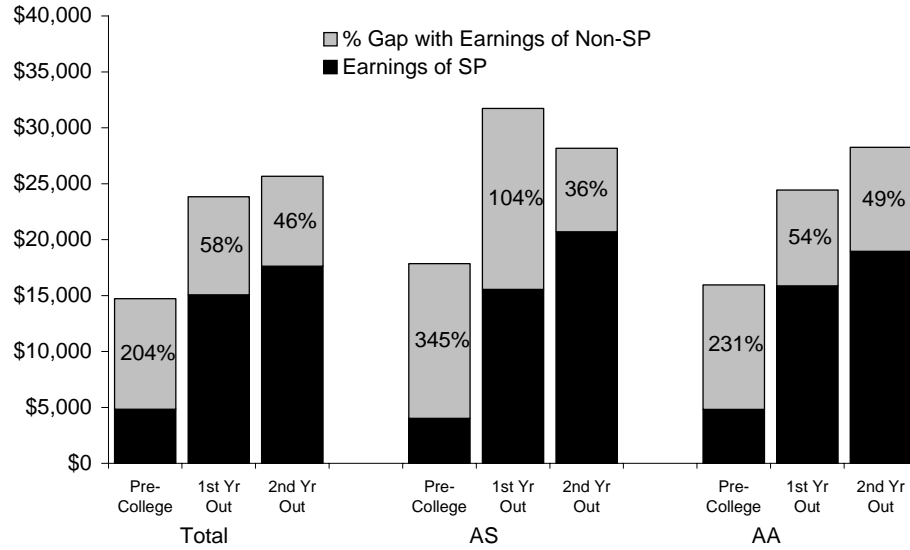


Figure 8-15

Median Annual Earnings of Special Population Men
Exiting in 1999-2000 with AS Degrees in any Field

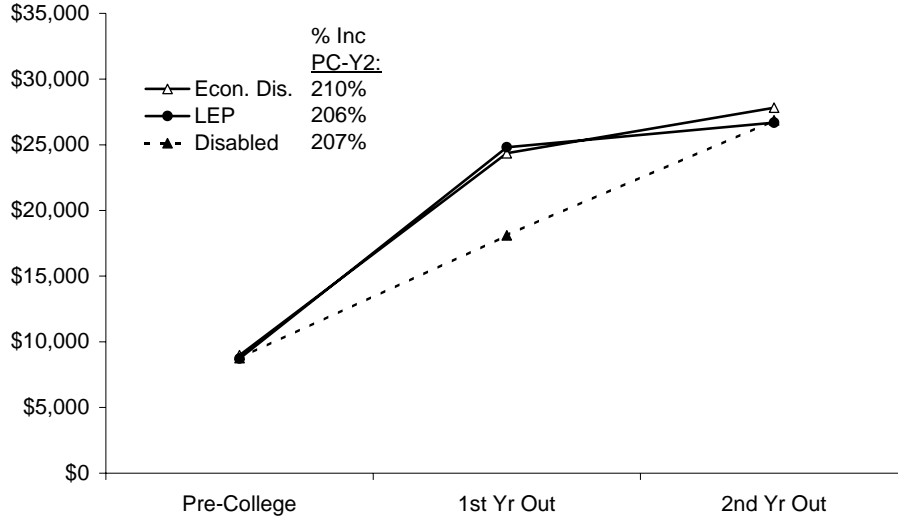


Figure 8-16

Median Annual Earnings of Special Population Men
Exiting in 1999-2000 with AA Degrees in any Field

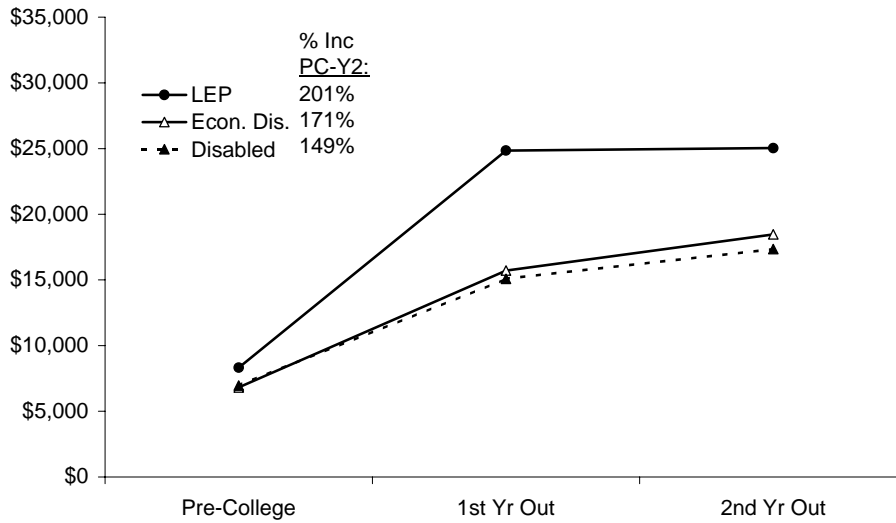


Figure 8-17

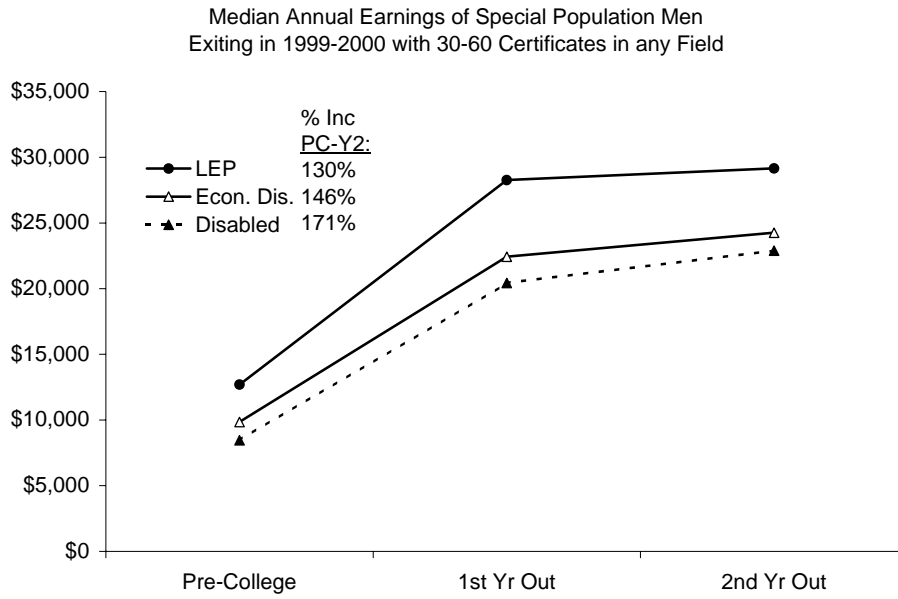


Figure 8-18

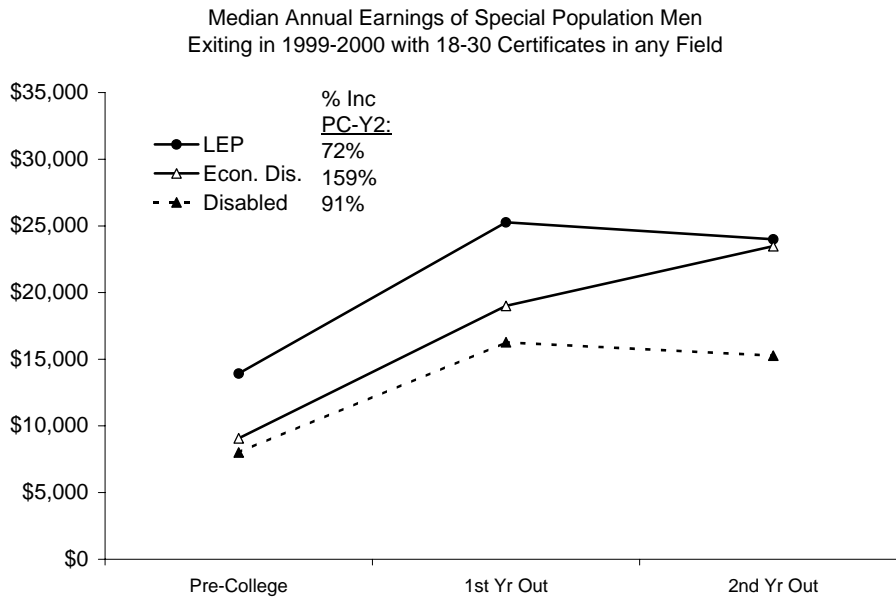


Figure 8-20

Percentage Gap In Median Annual Earnings Between Special Population and Non-Special Population Men (Nursing/Dental) By Education and Year

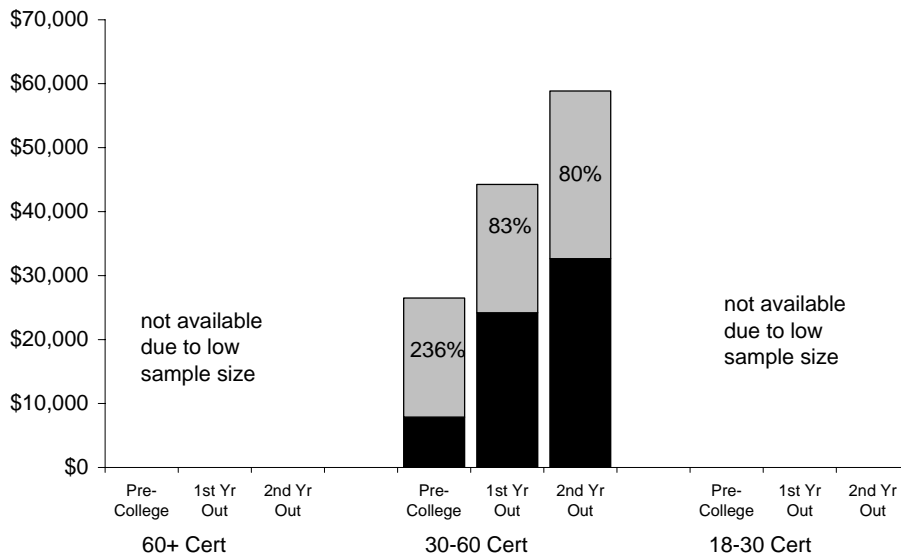
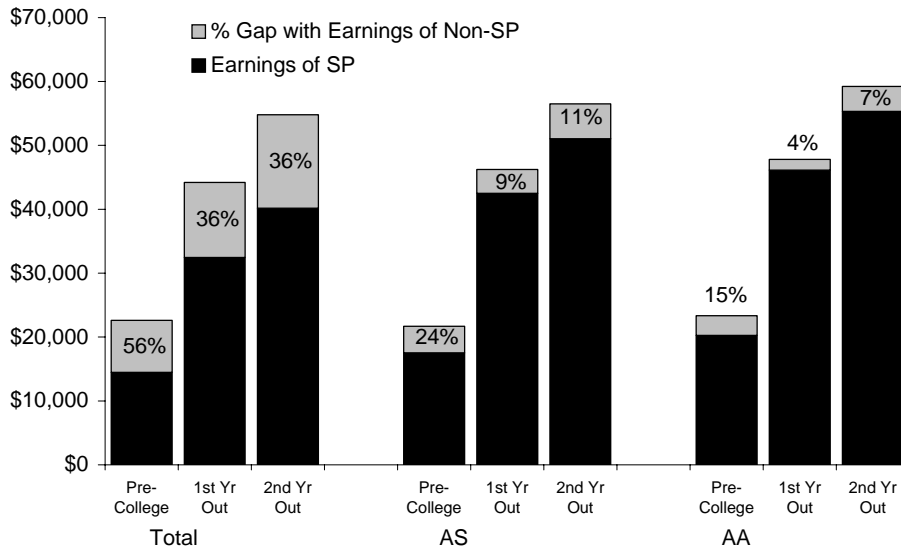


Figure 8-21

Percentage Gap In Median Annual Earnings Between Special Population and Non-Special Population Men (Business) By Education and Year

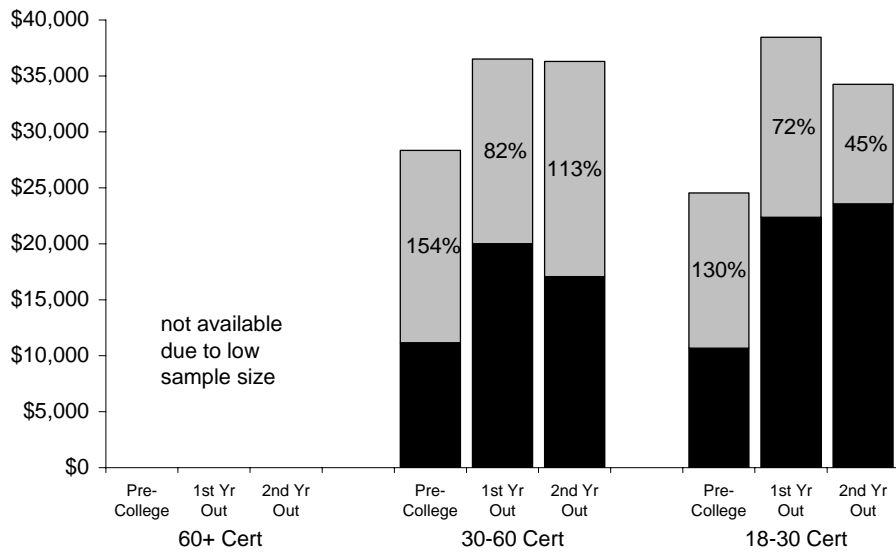
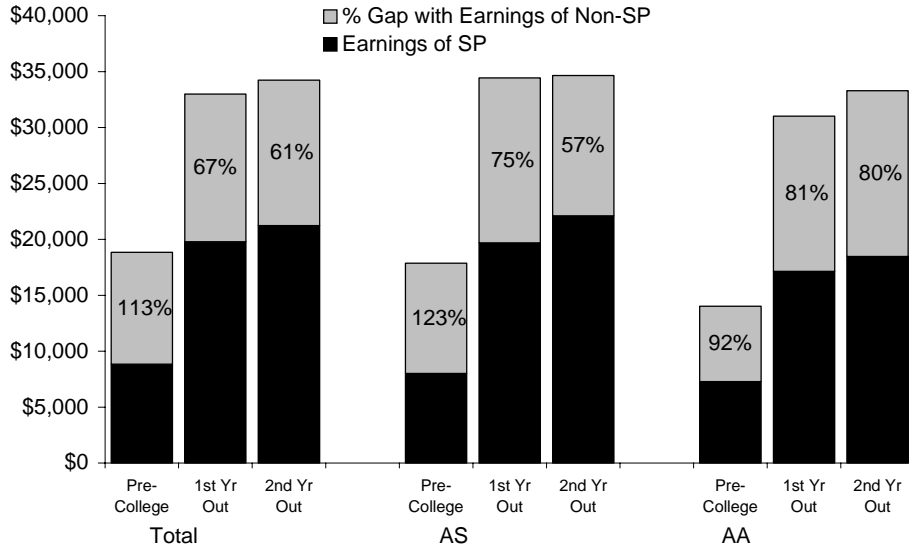


Figure 8-22

Percentage Gap In Median Annual Earnings Between Special Population and Non-Special Population Men (Computer) By Education and Year

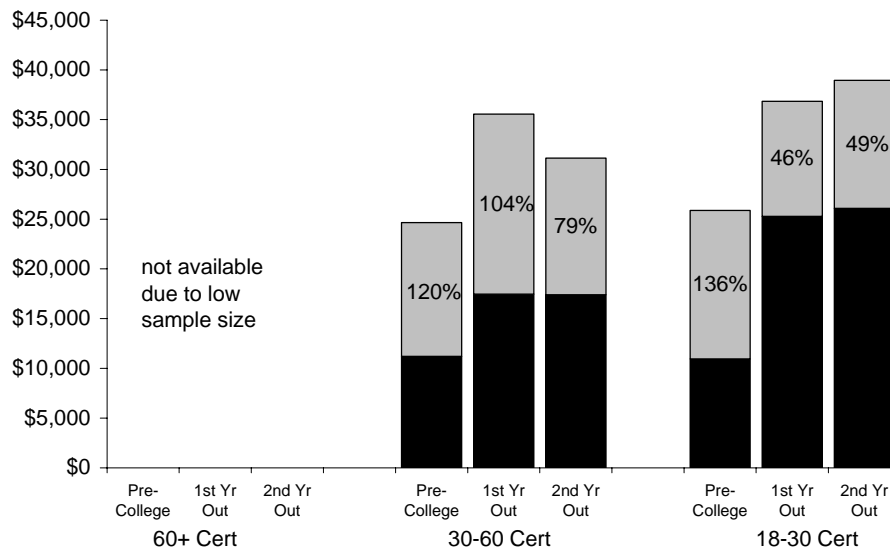
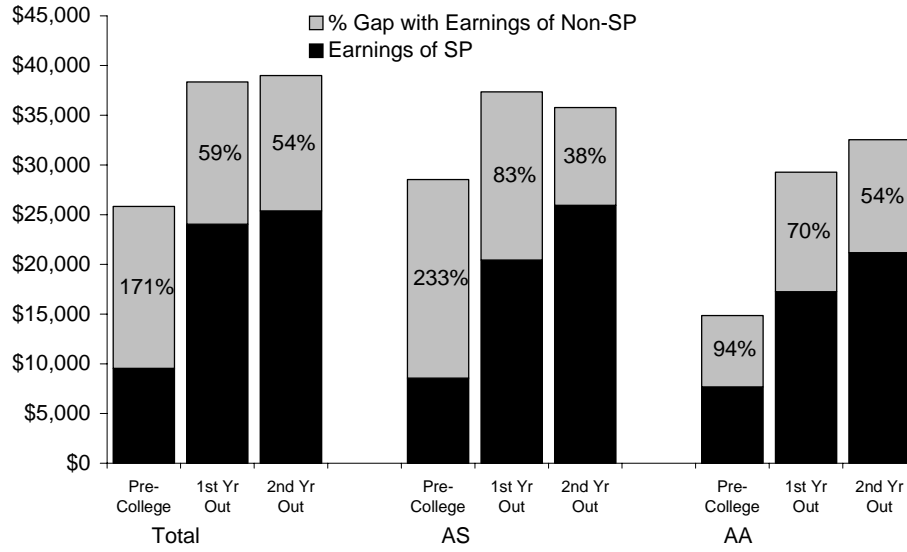


Figure 8-23

Percentage Gap In Median Annual Earnings Between Special Population and Non-Special Population Men (Engineering) By Education and Year

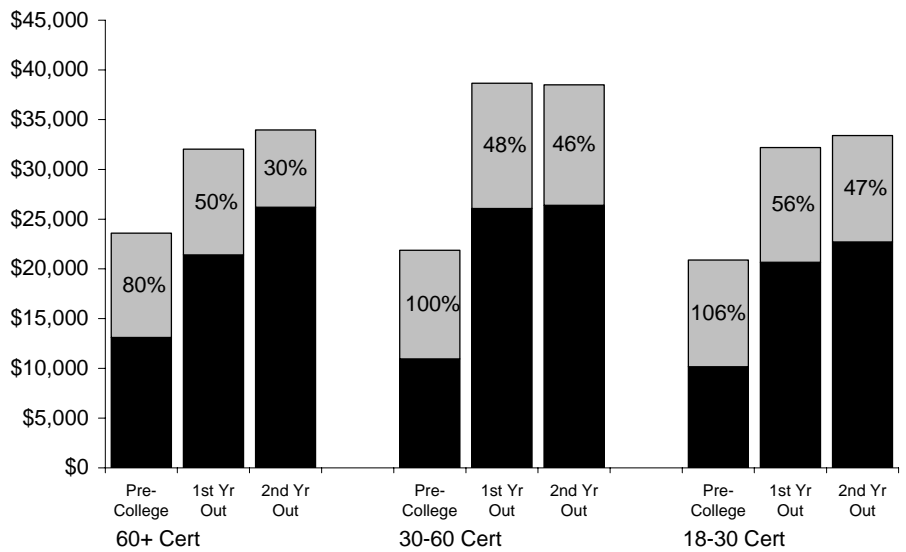
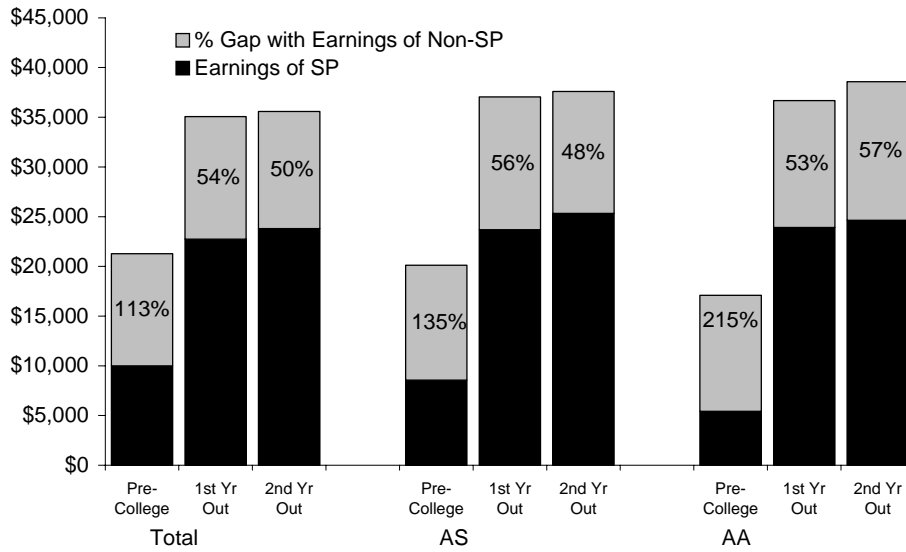


Figure 8-24

Percentage Gap In Median Annual Earnings Between Special Population and Non-Special Population Men (AOJ) By Education and Year

