

Career Academies

Impacts on Labor Market Outcomes and Educational Attainment

March 2004

Technical Resources



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Sample Description and Survey Response Rate

Unit 2:

Comparison of Academy Students and Non-Academy Students with National Data

Unit 3:

Impacts for the Full Study Sample

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Unit 1

Sample Description and Survey Response Rate

Post-High School Survey Data and Analysis Issues

The Career Academies Four-Year Post-High School Follow-Up Survey, which was administered to students in the study sample approximately 48 months after their scheduled graduation from high school, constitutes the primary data source for this report. The survey sample of 1,458 students represents 83 percent of the full study sample — 83 percent of the Academy group and 82 percent of the non-Academy group. The overall response rate and the similarity between the response rates for the Academy and non-Academy groups are very high by the standards of survey research.

Whenever survey response rates are less than 100 percent, however, it is important to investigate two factors that may confound interpretation of the findings. The first part of this unit focuses on whether the respondent sample systematically differs from the nonrespondent sample. It concludes that there were a number of differences between respondents and nonrespondents. Most notably, young men and high-risk students were somewhat underrepresented in the respondent sample, while young women and low-risk students were slightly overrepresented. As a result, caution should be exercised in generalizing the impact findings from the respondent sample to the full report sample.

A second and more serious concern is whether respondents in the Academy group differ systematically from respondents in the non-Academy group. The second part of this unit concludes that there were no systematic differences in background characteristics between the Academy and non-Academy group members who responded to the survey, affording a high degree of confidence that differences in outcomes between the two groups reflect impacts of the Career Academies rather than preexisting differences in background characteristics between Academy and non-Academy sample members who responded to the survey.

Post-High School Survey Response Rates

The evaluation team attempted to obtain information about high school graduation and initial post-high school education and employment experiences for the full sample of 1,764 students in all nine sites participating in the Career Academies Evaluation.¹ For the present pur-

¹Details about site selection can be found in the following previous report from the evaluation: James J. Kemple and JoAnn Leah Rock, *Career Academies: Early Implementation Lessons from a 10-Site Evaluation* (New York: MDRC, 1996). Also, as discussed in that report, the initial research sample consisted of 1,953 students in 10 sites. A total of 189 of these students were dropped from the initial research sample, and efforts to collect data for them were discontinued. Students who were dropped from the sample include the following: 126 students in the initial sample who attended an Academy that was disbanded after two years in the study and was unable to provide sufficient follow-up data for its students and 59 students in the initial sample who applied for an Academy program during their 10th-grade year and should not have been included in

(continued)

pose, this group of students — all of whom applied for a place in an Academy — is referred to as the *study sample*. Of the students in the study sample, 959 (54 percent) were randomly selected to enroll in an Academy (the *Academy group*). The remaining 805 students (46 percent of the study sample) were not invited to participate in the Academies but could choose other options available in their high school or school district (the *non-Academy group*).

Each student entered the study at the end of the 1992-1993, 1993-1994, or 1994-1995 school year, at which point he or she was at the end of the 8th- or 9th-grade year. Whether students were in the 8th grade or 9th grade at the point of application depended on the Academy program to which they applied; two of the Academies began in the 9th grade, and the remaining seven began in the 10th grade. Students applied for admission to the programs at the end of the school year before expected enrollment. This report follows sample members through the 48 months after their scheduled graduation date — that is, through June 2000, 2001, or 2002, depending on the year during which, and the grade level at which, sample members entered the study.

A key question for interpreting the findings presented in this report is whether students for whom survey data are available are representative of the full study sample. Exhibit 1.1 lists the percentages of students in the full study sample, and in key subgroups of interest, who responded to the Four-Year Post-High School Follow-Up Survey. The first column in the table shows the overall response rates for the full sample and various subgroups, and the second and third columns show the rates for the Academy and non-Academy groups, respectively.

Overall, the survey achieved an 83 percent response rate, and response rates were at or above 80 percent for almost every subgroup. A response rate of 80 percent is considered high by survey research standards. This table also indicates, however, that there were some substantial differences in the response rate across different subgroup categories. For example, those at low risk of dropping out responded at a rate 10 percentage points higher than those at high risk (88 percent, compared with 78 percent), and young women responded at a rate 8 percentage points higher than young men (86 percent, compared with 78 percent).

At the same time, Exhibit 1.1 indicates that, in general, there were only modest differences between Academy and non-Academy response rates within subgroup categories. The first line of the table shows that the very small difference in response rates between the Academy and non-Academy groups is not statistically significant. This means that, overall, there were no systematic differences in the response rates of Academy and non-Academy groups. The table also shows that there were no systematic differences in response rates between Academy and

the study. This information was obtained from pre-random assignment school records and was confirmed with school staff. Finally, over the course of the data collection period, MDRC learned through contact with the schools and families that four other students were deceased.

non-Academy students who were young men or in any of the graduation cohorts, ethnicity subgroups, or subgroups defined by baseline educational expectation. In two of the sites, however, the response rate was significantly higher for Academy students than for non-Academy students. Also, high-risk Academy students were somewhat more likely to respond than high-risk non-Academy students. Finally, the response rate for female students in the Academy group was also slightly higher than that for female students in the non-Academy group.

In a previous report from this evaluation, the research team reported a significant discrepancy in response rates to the One-Year Post-High School Follow-Up Survey between dropouts and nondropouts. For administration of the Four-Year Post-High School Follow-Up Survey, the evaluation devoted extra resources to achieve a high response rate regardless of dropout status. This extra effort appears to have paid off. The response rate among dropouts from the non-Academy group (70 percent) was lower than the rate among Academy group dropouts (76 percent), but this difference is not statistically significant (not shown in table). The overall response rate of 74 percent for dropouts, while perhaps not ideal, is relatively high for a population that is typically difficult to reach.

Exhibit 1.2 further illustrates the differences between those who responded to the survey and those who did not (regardless of Academy or non-Academy status). It shows that there are a number of significant differences in baseline demographic, family, and educational characteristics. While the differences between respondents and nonrespondents are noteworthy, the high response rate helps ensure that the respondents are still reasonably representative of the full sample. In fact, one might expect that the higher the response rate, the greater the difference would be between those who responded and those who did not.

In short, the analysis of response rates indicates that the samples of students for whom four-year follow-up data are available are not perfectly representative of the full study sample of 1,764 students. Thus, caution should be exercised when attempting to generalize the findings beyond the students who are included in the analyses. Nevertheless, the overall response rates show that data are available for the vast majority of students in the study sample, making the findings fairly representative.

Comparison of Respondents in the Academy and Non-Academy Groups

The main strength of a random assignment research design is that it ensures that there are no systematic differences between the research groups in measured or unmeasured background characteristics when sample members enter the study. As a result, any differences that emerge after that point can be attributed with confidence to the fact that one group had access to an Academy and the other group did not. Previous reports from the Career Academies Evalua-

tion demonstrated that there were indeed no systematic differences in background characteristics between Academy and non-Academy students in the study sample.

Nonetheless, when response rates on a follow-up survey are less than 100 percent, impact estimates may be biased if there are systematic differences in the background characteristics or the pre-random assignment experiences of Academy and non-Academy students who responded. A key question underlying the analyses presented in this report is thus: Do the Four-Year Post-High School Follow-Up Survey response patterns preserve the lack of systematic differences between the research groups ensured by the random assignment design? In other words, does this survey sample exhibit the same lack of systematic differences between Academy and non-Academy students, both overall and for each of the risk and gender subgroups? Exhibit 1.3 presents the average characteristics of Academy and non-Academy students in the survey sample. This table shows that there were no statistically significant differences between the groups on any of the characteristics.

A more rigorous way to test for such differences is to use multiple regression analysis. Exhibit 1.4 presents linear regression estimates and statistical tests of whether there were any systematic differences between Academy and non-Academy students in the survey sample and in each of the three risk subgroups. The first column in Exhibit 1.4 shows that none of the differences in characteristics is statistically significant and that there was no systematic difference overall between the groups. The final row in the first column, the p-value of the F-statistic for the full study sample, is very close to 1, providing strong evidence that there was no overall pattern of differences between Academy and non-Academy students in the survey sample. A p-value of .10 or lower is typically considered a “high” likelihood that there are systematic differences between groups.

The three remaining columns in Exhibit 1.4 present the same analysis for each of the three risk subgroups. These columns indicate that there are slight differences on a few individual characteristics but no overall pattern of differences between Academy and non-Academy students for any of the subgroups. The p-values of the F-statistic for the subgroups range from .367 to .929.

Exhibit 1.5 repeats this analysis for the gender subgroups. Again, while there are slight differences on a few individual characteristics, there is no overall pattern of differences between Academy and non-Academy young men or young women. The p-value of the F-statistic is .944 for the subgroup of young men and .600 for the subgroup of young women.

In summary, the random assignment design resulted in two groups of students who did not differ systematically with respect to background characteristics or prior school experiences. The pattern of survey response rates for the full sample and for each of the risk and gender subgroups preserves this feature of the research design, affording confidence that any

differences in the outcome measures found are the result of the Academy group's enrollment in the Career Academies.

Using Variance Components Model for Impact Estimation and Calculation of Standard Errors

The impact analyses conducted for previous reports from the Career Academies Evaluation were based on a straightforward comparison of the students randomly assigned to the Academy and non-Academy groups, irrespective of the site or cohort in which individual sample members were located. While this analytic method produces unbiased estimates of Career Academy impacts, it may oversimplify the structure of the variance. As a result, it may generate incorrect standard errors. This section of the Technical Resources provides an overview of an analysis model that was used to estimate the impacts presented in the report and to calculate robust standard errors to determine statistical significance.

Most impact analyses use a standard ordinary least squares method to estimate program impacts and calculate the standard error of the impact. These analyses are typically based on the following model:

$$Y_{ij} = \beta_0 + \beta_1 Treat_{ij} + e_{ij} \quad (1)$$

This is the model used to estimate impacts for previous reports from the Career Academies Evaluation. Further discussion within MDRC and advice from colleagues in the field suggested that this model does not account for the actual structure of the random assignment process and, by extension, the structure of the error term (e_{ij}). Specifically, there were nine Career Academy sites. Rather than conducting one large random assignment process, random assignment was conducted separately for each cohort of students admitted in particular school years. This resulted in 20 separate site-by-year cohorts. Therefore, the structure of the data for the Career Academies Evaluation is one in which individuals are clustered within cohorts.²

This clustering of sample members within random assignment cohorts may have important implications for the analysis. Impact estimates that fail to account for this phenomenon may result in inaccurate estimates of statistical precision and, therefore, in incorrect inferences regarding the effects of Career Academies on student outcomes. The structure of the Career Acad-

²One could also think of the sample as structured in three levels: individuals, within cohorts, within schools. However, the analysis is not attempting to generalize to a broader population of schools. Rather, it is concerned primarily with the effects in these nine Career Academies sites. Thus, this level of analysis would be estimated with fixed effects. Therefore, the analysis can be mathematically reduced to a two-level model.

emies Evaluation data implies a variance components model with two levels: individual students and cohorts within which random assignment took place.

Level 1: Individual Students

$$Y_{ij} = \beta_{0j} + \beta_{1j}Treat_{ij} + \beta_{2j}X_{ij} + e_{ij} \quad (2)$$

where

X_{ij} represents individual characteristics such as race/ethnicity and socioeconomic status; and

β_{2j} represents the relationship between these characteristics to the dependent variable at cohort j .³

Level 2: Cohorts

$$\beta_{0j} = \gamma_{00} + \mu_{0j} \quad (3)$$

$$\beta_{1j} = \gamma_{10} + \mu_{1j} \quad (4)$$

$$\beta_{2j} = \gamma_{20} \quad (5)$$

where

γ_{00} = the intercept, that is, the control group's grand mean;

μ_{0j} = a random cohort-specific error term representing the difference between the control group's grand mean and the control group's mean at cohort j ;

γ_{10} = the average "treatment effect", that is, the average difference between the control group's and the treatment group's grand means;

μ_{1j} = a random cohort-specific error term representing the difference between the average treatment effect and the treatment effect at cohort j ; and

³In an effort to add precision to the impact estimates, estimate models generally control for random individual differences in observed characteristics. Therefore, in practice, the multilevel model would also include these additional covariates. There are several options for estimating the relationships between these characteristics and the dependent variable. The simplest is to assume that the relationships between these characteristics and the dependent variable are constant across cohorts in the sample.

γ_{20} = the average relationship between background characteristics and dependent variable across the entire sample.

Composite Model: This system of equations yields the following composite model.

$$Y_{ij} = \gamma_{00} + \gamma_{10}Treat_{ij} + \gamma_{20}X_{ij} + \mu_{1j}Treat_{ij} + \mu_{0j} + e_{ij} \quad (6)$$

Equation 6 yields an estimate of the average treatment effect (γ_{10}), accounting for the fact that individual students are clustered within random assignment cohorts. This treatment effect, γ_{10} , as typically calculated by most statistical packages, represents the average of the cohort-specific treatment effects, with each cohort-specific effect being weighted approximately inversely to its estimated variance.

Equation 6 assumes the existence of random cohort effects in average achievement as well as in the treatment effect. In other words, the model assumes that there is a cohort-specific component to the variance in the outcomes and that there is a cohort-specific component to the variance of the treatment effect. Supplementary analyses were conducted to assess the viability of these assumptions. These analyses yielded two conclusions. First, standard ordinary least squares calculations of standard errors are likely to significantly underestimate the magnitude of the standard errors and, thus, to overestimate the statistical significance of the impacts. This suggests the need for a multilevel variance components model that accounts for the clustering of sample members within random assignment cohorts. In other words, the μ_{0j} term (the random cohort-specific error term representing the difference between the control group's grand mean and the control group's mean at cohort j) in Equation 6 should be included to ensure accurate calculation of the standard errors.

Second, the supplementary analyses indicated that the treatment effect does not vary significantly across cohorts. Therefore, it is appropriate to estimate a model within which the treatment effect is *fixed* rather than random at level 2. In other words, the μ_{1j} term (the random cohort-specific error term representing the difference between the average treatment effect and the treatment effect at cohort j) in Equation 6 can be assumed to be zero and the estimation model need not allow for variation in *impacts* across cohorts. Thus, the following model was used to estimate the impact of Career Academies on student outcomes and to calculate robust standard errors:

$$Y_{ij} = \gamma_{00} + \gamma_{10} * Treat_{ij} + \gamma_{20}X_{ij} + \mu_{0j} + e_{ij} \quad (7)$$

Impacts and Program Participation

A final analysis issue concerns the relationship between students' actual exposure to the Career Academies and the impacts that the programs had on students' success in high school and beyond. As discussed in the text of this report and more extensively in previous reports, student attrition is a naturally occurring feature of Career Academies and, in fact, of high schools in general. About 15 percent of the students in the Academy group never enrolled in a Career Academy program, and an additional 30 percent enrolled for one or more semesters but eventually left the Academy in which they enrolled before the end of high school. In addition, a small percentage of students in the non-Academy group were inadvertently allowed to enroll in an Academy. It is important to note that the background characteristics of students who remained enrolled in the Academies differed from those who enrolled for a time and then left, making it difficult to make an unbiased estimate of the impacts that the Academies had for students who remained in their programs.

For example, high-risk students in the Academy group were less likely than medium- and low-risk students to enroll in a Career Academy and were more likely to have left the programs if they did enroll. If high-risk students (including those who dropped out of high school altogether) were excluded from the Academy group but included in the non-Academy group, then comparisons between the groups would systematically overestimate the impacts of the Academy programs. In other words, if the high-risk (and less engaged) Academy students were excluded from the analysis, then it would appear that the Academies increased student engagement more than they actually had. However, there were also students who left the Academies and who were highly engaged in school but who wished to move on to a school environment that was better suited to their evolving needs and interests. If these students were excluded from the Academy group but included in the non-Academy group, then it would appear that the Academies reduced student engagement.

In order to produce unbiased estimates of the Academies' impacts, therefore, the primary analysis conducted for the evaluation includes all students in the Academy and non-Academy groups, regardless of their Academy enrollment status at any point after random assignment. In this way, the findings reflect the impact of Career Academies under real-world conditions, which include a high rate of student attrition. Studying Career Academies under these conditions is arguably the most policy-relevant approach.

Of course, it is highly unlikely that the Career Academies had much effect on students in the Academy group who never enrolled in the programs. Nor can it be assumed that the Academies had no effect on students in the study's non-Academy group who were allowed to enroll in the programs inadvertently. From this perspective, the impact estimates may be perceived as being diluted by the inclusion of some students in the Academy group who never enrolled in the programs and by the small proportion of non-Academy group members who were

inadvertently allowed to enroll. It is therefore useful to examine impact estimates that account for these “crossovers” in research status, particularly estimates that indicate the *impact per enrollee* on each outcome. The impact per enrollee can be interpreted as the impact from actually enrolling in an Academy as opposed to simply being recruited and selected for admission.⁴

Adjusting for crossovers does not substantially change the overall pattern of impacts discussed in this report. For students who completed the Four-Year Post-High School Follow-Up Survey, 87 percent of the Academy group enrolled in an Academy for at least one semester during high school, and 6 percent of the non-Academy group did so. The impact per enrollee adjustment is obtained by dividing the observed impact estimates by the difference between these rates, .81, which is equivalent to multiplying each impact estimate by 1.25. (If the percentage of students who enrolled in an Academy had been 100 percent in the Academy group and 0 percent in the non-Academy group, then the difference between the rates would be 1.0, and no adjustment would be necessary.) As discussed in the report, most of the impact estimates are not sufficiently large to have this adjustment make them much larger or more policy-relevant.

Units 3, 4, and 5 of the Technical Resources for this report include the impact per enrollee, which is defined as the observed impact divided by the difference between the percentages of Academy and non-Academy students who ever enrolled in an Academy. These are listed in the rightmost column of the relevant tables.

⁴This adjustment, which was proposed by Bloom and by Orr and associates (cited below), relies on two important assumptions: (1) that selection for the Academy group had no effect on students who did not enroll in an Academy and (2) that the average outcome levels for non-Academy students who were inadvertently allowed to enroll would have been the same if they had been assigned to the Academy group initially. Thus, the adjustment can be seen as discounting both the zero impact for the Academy group members who did not enroll in the program and the nonzero impact for the non-Academy group members who got the same treatment as the Academy enrollees. See Howard S. Bloom “Accounting for No-Shows in Experimental Evaluation Designs,” *Evaluation Review* 8 (2): 225-246 (1984); and Larry Orr, Howard Bloom, Stephen Bell, Fred Doolittle, Winston Lin, and George Cave, *Does Training for the Disadvantaged Work?* (Washington, DC: Urban Institute Press, 1996).

Career Academies Evaluation

Exhibit 1.1

**Response Rates for the Four-Year Post-High School Follow-Up Survey
for the Full Sample and Selected Subgroups**

Subgroup	Sample Size	Total (%)	Academy Group (%)	Non-Academy Group (%)
<u>Full sample</u>	1764	82.7	83.3	81.9
<u>Site</u>				
Anacostia	114	79.0	82.5	74.5
L.C./Eastern	259	81.9	86.4	76.5 **
Socorro	199	85.9	89.7	81.5 *
Miami Beach	265	77.0	76.2	77.9
Westinghouse	66	78.8	80.6	76.7
Independence	119	84.0	81.5	87.0
Silver Creek	169	84.0	81.7	86.8
Valley	279	83.2	83.6	82.7
Watsonville	294	86.7	85.0	88.8
<u>Graduation cohort</u>				
1996	441	84.1	84.3	83.9
1997	632	83.1	82.6	83.6
1998	691	81.3	83.3	79.0
<u>Risk subgroup</u>				
High risk	461	78.1	82.1	73.3 **
Medium risk	877	82.3	80.5	84.5
Low risk	426	88.3	90.4	85.7
<u>Gender</u>				
Male	773	78.1	77.3	79.1
Female	991	86.2	88.1	83.9 *
<u>Ethnicity</u>				
Hispanic	972	83.1	84.0	82.1
Black	523	79.9	82.2	77.1
White	111	83.8	79.0	88.9
Asian/Native American	124	86.3	84.5	88.7
<u>Educational expectations</u>				
Does not expect to graduate from college	614	82.6	81.8	83.5
Graduate from college	671	82.4	83.8	80.6
Attend higher level of school after college	448	82.8	84.8	80.7

(continued)

Exhibit 1.1 (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: A chi-square test was used to evaluate differences between Academy and non-Academy response rates. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. High-risk students have an array of these characteristics associated with the highest likelihood of dropping out; low-risk students have an array of these characteristics associated with the lowest likelihood of dropping out; medium-risk students represent the remaining students with neither a particularly high nor particularly low likelihood of dropping out.

Career Academies Evaluation

Exhibit 1.2

**Differences Between Respondents' and Nonrespondents'
Background Characteristics**

Characteristic	Full Sample (%)	Respondents (%)	Non- Respondents (%)
<u>Demographic and family characteristics</u>			
Gender			
Male	43.8	41.4	55.2 ***
Female	56.2	58.6	44.8
Age of student at time of application			
13 or younger	8.6	8.7	8.2 **
14	35.6	36.7	30.5
15	46.1	45.8	47.2
16 or older	9.7	8.8	14.1
Race/ethnicity			
Hispanic	56.2	56.7	53.9
Black	30.2	29.3	34.5
White	6.4	6.5	5.9
Asian or Native American	7.2	7.5	5.6
Student speaks limited English ^a	7.6	7.6	7.3
Student lives with			
Mother and father	61.7	63.3	54.3 **
Mother only	28.6	27.9	31.8
Father only	4.6	4.2	6.6
Other family/nonrelative	5.1	4.6	7.3
Student lives in single-parent household	38.3	36.7	45.7 ***
Father's education level			
Did not finish high school	39.8	40.5	36.1
High school graduate/GED recipient	32.4	31.9	34.6
Completed some post-secondary	15.1	15.5	13.5
College graduate	12.7	12.0	15.9
Mother's education level			
Did not finish high school	36.1	37.6	28.8 *
High school graduate/GED recipient	34.8	34.2	37.9
Completed some post-secondary	18.2	17.8	20.2
College graduate	10.8	10.4	13.2
Neither parent has high school diploma	28.6	29.5	24.2 *
Parental work			
Both parents work	47.3	48.6	41.3 ***
Father works	23.8	23.3	25.9
Mother works	17.8	18.0	16.8
Neither parent works	11.1	10.0	16.1

(continued)

Exhibit 1.2 (continued)

Characteristic	Full Sample (%)	Respondents (%)	Non-Respondents (%)
Family receives welfare or food stamps	24.2	23.6	27.6
Family mobility in past two years			
Have not moved	59.4	61.6	49.2 ***
Moved 1 or 2 times	33.6	32.2	39.9
Moved 3 or more times	7.0	6.2	10.9
Student is home alone more than 3 hours per day	13.5	13.4	14.3
<u>Educational characteristics</u>			
8 th -grade math test score ^b			
75 th percentile or higher	8.5	8.8	7.1
50 th to 74 th percentile	19.4	19.4	19.6
25 th to 49 th percentile	32.1	31.6	35.3
24 th percentile or lower	40.0	40.3	38.0
8 th -grade reading test score ^c			
75 th percentile or higher	8.3	8.7	5.9
50 th to 74 th percentile	20.9	20.7	21.6
25 th to 49 th percentile	33.5	32.9	36.8
24 th percentile or lower	37.4	37.7	35.7
Student does not feel safe at school	23.2	22.8	25.2
Frequency of cutting classes			
Never	78.9	79.8	74.7 *
At least 1 time a week	19.7	19.0	23.0
Daily	1.4	1.2	2.3
Sent to office for misbehavior			
Never	81.3	81.9	78.4
1-2 times	15.7	15.2	17.9
3-10 times	3.0	2.8	3.7
Educational expectations			
Does not expect to graduate from college	35.4	35.4	35.4
Graduate from college	38.7	38.6	39.1
Attend higher level of school after college	25.9	25.9	25.5
Hours per week spent on homework			
1 hour or less	28.8	28.7	29.6
2-3 hours	38.2	38.0	39.1
4-6 hours	17.4	17.5	16.8
7 hours or more	15.6	15.8	14.5
Hours per day spent watching TV			
Less than an hour	12.3	12.0	13.5
1-2 hours	27.1	26.7	29.1
2-3 hours	26.8	27.3	24.3
Over 3 hours	33.8	34.0	33.1

(continued)

Exhibit 1.2 (continued)

Characteristic	Full Sample (%)	Respondents (%)	Non-Respondents (%)
Student has worked for pay	36.3	35.7	39.1
<u>Characteristics associated with dropping out of school</u>			
Attendance rate, year prior to random assignment			
96-100%	54.1	54.9	50.7 **
91-95%	24.1	24.5	21.9
86-90%	11.0	10.6	12.6
85% or lower	10.8	10.0	14.9
Credits earned in 9 th grade ^d			
5 or more credits	80.9	81.8	76.5 ***
3-4 credits	13.7	14.0	12.4
2 or fewer credits	5.5	4.2	11.1
Grade point average in year of random assignment ^e			
3.1 or higher	36.1	37.2	31.1
2.1-3.0	38.1	38.0	39.0
2.0 or lower	25.7	24.8	30.0
Student is overage for grade level ^f	21.1	19.7	28.2 ***
Student transferred schools 2 or more times	27.4	25.1	38.2 ***
Student has sibling who dropped out of high school	20.2	20.0	20.7
Risk of dropping out of high school ^g			
High risk	26.1	24.7	33.0 ***
Medium risk	49.7	49.5	50.7
Low risk	24.1	25.8	16.3
Sample size	1,764	1,458	306

(continued)

Exhibit 1.2 (continued)

SOURCES: MDRC calculations from the Career Academies Evaluation Student Baseline Questionnaire Database and Student School Records Database.

NOTES: All characteristics were measured at the time students applied to the Career Academy program and prior to being randomly selected to the Academy and non-Academy groups.

Invalid or missing values are not included in individual variable distributions. Rounding may cause slight discrepancies in calculating of sums and differences.

A chi-square test was applied to differences in the distribution of characteristics across the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. Double brackets [] indicate that the chi-square may not be a valid test.

^aThese are students who responded that they spoke English "not well" or "not at all."

^bSeveral different standardized, nationally normed math tests were administered to students, depending on the district where their school was located and the year they entered the study. National percentile scores were used because they were the only standardized scores available across tests.

^cSeveral different standardized, nationally normed reading tests were administered to students, depending on the district where their school was located and the year they entered the study. National percentile scores were used because they were the only standardized scores available across tests.

^dThis was applicable only to students who applied to the Career Academy at the end of their 9th-grade year.

^eGrade point averages were converted to a standard 4.0 scale from 100-point or 5-point scales for some sites.

^fA student is defined as overage for grade at the time of random assignment if she or he turns 15 before the start of the 9th grade, or 16 before the start of the 10th grade. This indicates that the student was likely to have been held back in a previous grade.

^gThe definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. High-risk students have an array of these characteristics associated with the highest likelihood of dropping out; low-risk students have an array of these characteristics associated with the lowest likelihood of dropping out; medium-risk students represent the remaining students with neither a particularly high nor particularly low likelihood of dropping out.

Career Academies Evaluation

Exhibit 1.3

**Differences Between Academy and Non-Academy Sample Members'
Background Characteristics**

Characteristic	Full Sample (%)	Academy Group (%)	Non-Academy Group (%)
<u>Demographic and family characteristics</u>			
Gender			
Male	41.4	41.4	41.4
Female	58.6	58.6	58.6
Age of student at time of application			
13 or younger	8.7	8.0	9.4
14	36.7	36.1	37.4
15	45.8	47.0	44.4
16 or older	8.8	8.9	8.7
Race/ethnicity			
Hispanic	56.7	56.1	57.4
Black	29.3	30.6	27.8
White	6.5	5.7	7.5
Asian or Native American	7.5	7.6	7.3
Student speaks limited English ^a	7.6	6.6	8.9
Student lives with			
Mother and father	63.3	62.1	64.7
Mother only	27.9	28.1	27.6
Father only	4.2	4.7	3.4
Other family/nonrelative	4.6	5.0	4.2
Student lives in single-parent household	36.7	37.9	35.3
Father's education level			
Did not finish high school	40.5	39.2	42.2
High school graduate/GED recipient	31.9	32.0	31.8
Completed some post-secondary	15.5	15.5	15.5
College graduate	12.0	13.3	10.5
Mother's education level			
Did not finish high school	37.6	36.4	39.1
High school graduate/GED recipient	34.2	34.2	34.2
Completed some post-secondary	17.8	18.6	16.8
College graduate	10.4	10.8	9.8
Neither parent has high school diploma	29.5	29.2	29.9
Parental work			
Both parents work	48.6	47.8	49.7
Father works	23.3	23.3	23.4
Mother works	18.0	19.5	16.3
Neither parent works	10.0	9.5	10.7

(continued)

Exhibit 1.3 (continued)

Characteristic	Full Sample (%)	Academy Group (%)	Non-Academy Group (%)
Family receives welfare or food stamps	23.6	23.9	23.2
Family mobility in past two years			
Have not moved	61.6	60.5	62.9
Moved 1 or 2 times	32.2	33.3	30.9
Moved 3 or more times	6.2	6.1	6.2
Student is home alone more than 3 hours per day	13.4	13.5	13.2
<u>Educational characteristics</u>			
8 th -grade math test score ^b			
75 th percentile or higher	8.8	8.7	8.8
50 th to 74 th percentile	19.4	19.7	18.9
25 th to 49 th percentile	31.6	30.2	33.3
24 th percentile or lower	40.3	41.4	39.0
8 th -grade reading test score ^c			
75 th percentile or higher	8.7	9.0	8.4
50 th to 74 th percentile	20.7	22.2	18.9
25 th to 49 th percentile	32.9	31.3	34.8
24 th percentile or lower	37.7	37.5	37.9
Student does not feel safe at school	22.8	22.4	23.3
Frequency of cutting classes			
Never	79.8	80.3	79.3
At least 1 time a week	19.0	19.0	19.0
Daily	1.2	0.8	1.7
Sent to office for misbehavior			
Never	81.9	80.8	83.3
1-2 times	15.2	16.2	14.0
3-10 times	2.8	3.0	2.7
Educational expectations			
Does not expect to graduate from college	35.4	34.3	36.8
Graduate from college	38.6	40.9	35.9
Attend higher level of school after college	25.9	24.8	27.2
Hours per week spent on homework			
1 hour or less	28.7	27.3	30.3
2-3 hours	38.0	39.8	35.9
4-6 hours	17.5	18.4	16.4
7 hours or more	15.8	14.5	17.3
Hours per day spent watching TV			
Less than an hour	12.0	11.1	13.1
1-2 hours	26.7	26.3	27.1
2-3 hours	27.3	26.0	29.0
Over 3 hours	34.0	36.6	30.8

(continued)

Exhibit 1.3 (continued)

Characteristic	Full Sample (%)	Academy Group (%)	Non-Academy Group (%)
Student has worked for pay	35.7	35.5	35.9
<u>Characteristics associated with dropping out of school</u>			
Attendance rate, year prior to random assignment			
96-100%	54.9	53.2	56.9
91-95%	24.5	23.8	25.4
86-90%	10.6	12.1	8.9
85% or lower	10.0	10.8	8.9
Credits earned in 9 th grade ^d			
5 or more credits	81.8	81.1	82.7
3-4 credits	14.0	14.7	13.1
2 or fewer credits	4.2	4.2	4.2
Grade point average in year of random assignment ^e			
3.1 or higher	37.2	36.2	38.4
2.1-3.0	38.0	38.9	36.8
2.0 or lower	24.8	24.9	24.8
Student is overage for grade level ^f	19.7	20.2	19.0
Student transferred schools 2 or more times	25.1	25.3	24.8
Student has sibling who dropped out of high school	20.0	19.6	20.6
Risk of dropping out of high school ^g			
High risk	24.7	25.8	23.4
Medium risk	49.5	48.2	51.1
Low risk	25.8	26.0	25.5
Sample size	1,458	799	659

(continued)

Exhibit 1.3 (continued)

SOURCES: MDRC calculations from the Career Academies Evaluation Student Baseline Questionnaire Database and Student School Records Database.

NOTES: All characteristics were measured at the time students applied to the Career Academy program and prior to being randomly selected to the Academy and non-Academy groups.

Invalid or missing values are not included in individual variable distributions. Rounding may cause slight discrepancies in calculating of sums and differences.

A chi-square test was applied to differences in the distribution of characteristics across the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. Double brackets [] indicate that the chi-square may not be a valid test.

^aThese are students who responded that they spoke English "not well" or "not at all."

^bSeveral different standardized, nationally normed math tests were administered to students, depending on the district where their school was located and the year they entered the study. National percentile scores were used because they were the only standardized scores available across tests.

^cSeveral different standardized, nationally normed reading tests were administered to students, depending on the district where their school was located and the year they entered the study. National percentile scores were used because they were the only standardized scores available across tests.

^dThis was applicable only to students who applied to the Career Academy at the end of their 9th-grade year.

^eGrade point averages were converted to a standard 4.0 scale from 100-point or 5-point scales for some sites.

^fA student is defined as overage for grade at the time of random assignment if she or he turns 15 before the start of the 9th grade, or 16 before the start of the 10th grade. This indicates that the student was likely to have been held back in a previous grade.

^gThe definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. High-risk students have an array of these characteristics associated with the highest likelihood of dropping out; low-risk students have an array of these characteristics associated with the lowest likelihood of dropping out; medium-risk students represent the remaining students with neither a particularly high nor particularly low likelihood of dropping out.

Career Academies Evaluation

Exhibit 1.4

**Regression Coefficients for the Probability of Being in the Program Group
for the Full Study Sample and Risk Subgroups
(Four-Year Post-High School Follow-Up Survey Sample, N = 1,458)**

Variable	<u>Full Study Sample</u>	<u>High-Risk Subgroup</u>	<u>Medium-Risk Subgroup</u>	<u>Low-Risk Subgroup</u>
	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)
Intercept	0.257 (0.429)	-1.259 (0.814)	0.614 (0.688)	2.190 (1.468)
Site 1	0.009 (0.080)	-0.125 (0.157)	0.092 (0.118)	-0.047 (0.183)
Site 2	0.007 (0.089)	0.239 (0.172)	-0.057 (0.132)	-0.097 (0.200)
Site 3	0.091 (0.102)	0.522 (0.412)	0.033 (0.145)	-0.044 (0.232)
Site 4	-0.033 (0.103)	0.117 (0.186)	-0.017 (0.160)	-0.099 (0.315)
Site 5	-0.027 (0.068)	-0.029 (0.112)	-0.031 (0.110)	-0.069 (0.165)
Site 6	-0.024 (0.061)	-0.050 (0.101)	0.111 (0.102)	-0.228 *
Site 7	-0.005 (0.053)	-0.134 (0.099)	0.137 *	-0.105 (0.118)
Site 8	0.024 (0.055)	0.021 (0.103)	0.079 (0.090)	-0.080 (0.134)
Graduation cohort 1996	0.039 (0.045)	0.034 (0.091)	0.043 (0.074)	0.025 (0.095)
Graduation cohort 1997	0.021 (0.037)	-0.023 (0.088)	0.032 (0.053)	0.030 (0.076)
In 8th grade at application to Academy	0.010 (0.102)	-0.005 (0.212)	0.025 (0.154)	0.344 (0.290)
Female	-0.012 (0.028)	0.098 *	-0.059 (0.040)	-0.009 (0.057)
Age at application to Academy	0.036 (0.025)	0.086 *	0.024 (0.036)	-0.007 (0.053)

(continued)

Exhibit 1.4 (continued)

Variable	<u>Full Study Sample</u>	<u>High-Risk Subgroup</u>	<u>Medium-Risk Subgroup</u>	<u>Low-Risk Subgroup</u>
	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)
Hispanic	0.066 (0.058)	0.175 (0.129)	-0.026 (0.079)	0.172 (0.130)
Black	0.098 (0.076)	0.177 (0.148)	0.051 (0.110)	0.162 (0.175)
Asian/Native American	0.100 (0.076)	0.137 (0.154)	0.046 (0.116)	0.312 ** (0.158)
75th percentile or higher in 8th-grade math ^a	-0.003 (0.064)	0.049 (0.221)	0.035 (0.093)	-0.114 (0.109)
25th percentile or lower in 8th-grade math	0.039 (0.037)	0.140 * (0.072)	0.010 (0.052)	-0.045 (0.081)
Missing 8th-grade math test score	0.167 (0.154)	0.269 (0.232)	0.094 (0.299)	-0.071 (0.307)
75th percentile or higher in 8th-grade reading ^b	0.042 (0.058)	0.050 (0.163)	0.002 (0.080)	0.140 (0.106)
25th percentile or lower in 8th-grade reading	-0.022 (0.037)	-0.041 (0.071)	-0.013 (0.054)	0.008 (0.080)
Missing 8th-grade reading percentile	-0.195 (0.157)	-0.246 (0.234)	-0.093 (0.304)	-0.021 (0.321)
Has sibling who dropped out	-0.023 (0.034)	0.003 (0.058)	-0.059 (0.051)	-0.268 (0.171)
Is overage for grade level ^c	-0.023 (0.043)	-0.034 (0.076)	-0.064 (0.062)	0.150 (0.147)
Transferred schools 2 or more times	0.004 (0.032)	0.017 (0.059)	0.016 (0.046)	-0.086 (0.109)
Attendance rate, year prior to random assignment	-0.004 (0.002)	0.003 (0.004)	-0.005 (0.004)	-0.019 * (0.012)
Credits earned in 9th grade ^d	0.001 (0.010)	0.017 (0.019)	-0.005 (0.018)	0.047 (0.038)
Grade point average, year of random assignment ^e	0.010 (0.018)	-0.022 (0.046)	0.038 (0.030)	-0.001 (0.047)

(continued)

Exhibit 1.4 (continued)

Variable	<u>Full Study Sample</u>	<u>High-Risk Subgroup</u>	<u>Medium-Risk Subgroup</u>	<u>Low-Risk Subgroup</u>
	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)
Sample size	1458	360	722	376
Degrees of freedom	28	28	28	28
Mean of dependent variable	0.548	0.572	0.533	0.553
R-square	0.010	0.083	0.025	0.054
F-statistic	0.510	1.070	0.640	0.710
p-value of F-statistic	0.984	0.367	0.929	0.864

SOURCE: MDRC calculations from the Career Academies Evaluation Post-High School Follow-Up Survey Database.

NOTES: The statistical significance of parameter estimates is indicated as *** = 1 percent, ** = 5 percent, * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. High-risk students have an array of these characteristics associated with the highest likelihood of dropping out; low-risk students have an array of these characteristics associated with the lowest likelihood of dropping out; medium-risk students represent the remaining students with neither a particularly high nor particularly low likelihood of dropping out.

^aSeveral different standardized, nationally normed math tests were administered to students, depending on the district where their school was located and the year they entered the study. National percentile scores were used because they were the only standardized scores available across tests.

^bSeveral different standardized, nationally normed reading tests were administered to students, depending on the district where their school was located and the year they entered the study. National percentile scores were used because they were the only standardized scores available across tests.

^cA student is defined as overage for grade at the time of random assignment if she or he turns 15 before the start of the 9th grade, or 16 before the start of the 10th grade. This indicates that the student was likely to have been held back in a previous grade.

^dCredits earned in 9th grade applies only to students who applied to the Career Academy at the end of their 9th-grade year.

^eGrade point averages were converted to a standard 4.0 scale from 100-point or 5-point scales for some sites.

A student is defined as overage for grade at the time of random assignment if she or he turns 15 before the start of the 9th grade, or 16 before the start of the 10th grade. This indicates that the student was likely to have been held back in a previous grade.

Career Academies Evaluation

Exhibit 1.5

**Regression Coefficients for the Probability of Being in the Program Group
for the Full Study Sample and Gender Subgroups
(Four-Year Post-High School Follow-Up Survey Sample, N = 1,458)**

Variable	<u>Full Study Sample</u>	<u>Young Men</u>	<u>Young Women</u>
	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)
Intercept	0.257 (0.429)	1.048 (0.688)	-0.345 (0.563)
Site 1	0.009 (0.080)	0.075 (0.134)	-0.045 (0.101)
Site 2	0.007 (0.089)	0.024 (0.151)	-0.017 (0.111)
Site 3	0.091 (0.102)	0.061 (0.178)	0.119 (0.126)
Site 4	-0.033 (0.103)	0.012 (0.157)	-0.047 (0.144)
Site 5	-0.027 (0.068)	-0.072 (0.105)	-0.009 (0.091)
Site 6	-0.024 (0.061)	-0.117 (0.091)	0.044 (0.086)
Site 7	-0.005 (0.053)	-0.080 (0.086)	0.044 (0.070)
Site 8	0.024 (0.055)	-0.043 (0.089)	0.086 (0.072)
Graduation cohort 1996	0.039 (0.045)	0.089 (0.070)	0.004 (0.060)
Graduation cohort 1997	0.021 (0.037)	0.111 * (0.061)	-0.032 (0.047)
In 8th grade at application to Academy	0.010 (0.102)	0.040 (0.173)	-0.021 (0.128)
Female	-0.012 (0.028)	n/a n/a	n/a n/a
Age at application to Academy	0.036 (0.025)	-0.028 (0.040)	0.078 ** (0.033)

(continued)

Exhibit 1.5 (continued)

Variable	<u>Full Study Sample</u>	<u>Young Men</u>	<u>Young Women</u>
	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)
Hispanic	0.066 (0.058)	-0.039 (0.080)	0.197 ** (0.087)
Black	0.098 (0.076)	-0.062 (0.110)	0.282 *** (0.108)
Asian/Native American	0.100 (0.076)	0.024 (0.105)	0.192 * (0.114)
75th percentile or higher in 8th-grade math ^a	-0.003 (0.064)	0.066 (0.090)	-0.068 (0.093)
25th percentile or lower in 8th-grade math	0.039 (0.037)	0.138 ** (0.059)	-0.032 (0.047)
Missing 8th-grade math test score	0.167 (0.154)	0.469 (0.363)	0.101 (0.172)
75th percentile or higher in 8th-grade reading ^b	0.042 (0.058)	-0.038 (0.087)	0.107 (0.079)
25th percentile or lower in 8th-grade reading	-0.022 (0.037)	-0.042 (0.059)	-0.005 (0.049)
Missing 8th-grade reading percentile	-0.195 (0.157)	-0.491 (0.368)	-0.140 (0.175)
Has sibling who dropped out	-0.023 (0.034)	-0.013 (0.056)	-0.026 (0.043)
Is overage for grade level ^c	-0.023 (0.043)	0.042 (0.064)	-0.055 (0.058)
Transferred schools 2 or more times	0.004 (0.032)	-0.003 (0.049)	0.009 (0.042)
Attendance rate, year prior to random assignment	-0.004 (0.002)	-0.002 (0.004)	-0.005 * (0.003)
Credits earned in 9th grade ^d	0.001 (0.010)	0.015 (0.016)	-0.008 (0.014)
Grade point average, year of random assignment ^e	0.010 (0.018)	0.010 (0.029)	0.020 (0.024)

(continued)

Exhibit 1.5 (continued)

Variable	<u>Full Study Sample</u>	<u>Young Men</u>	<u>Young Women</u>
	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)	Parameter Estimate (Standard Error)
Sample size	1458	604	854
Degrees of freedom	28	27	27
Mean of dependent variable	0.548	0.548	0.548
R-square	0.010	0.028	0.029
F-statistic	0.510	0.610	0.910
p-value of F-statistic	0.984	0.944	0.600

SOURCE: MDRC calculations from the Career Academies Evaluation Post-High School Follow-Up Survey Database.

NOTES: The statistical significance of parameter estimates is indicated as *** = 1 percent, ** = 5 percent, * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. High-risk students have an array of these characteristics associated with the highest likelihood of dropping out; low-risk students have an array of these characteristics associated with the lowest likelihood of dropping out; medium-risk students represent the remaining students with neither a particularly high nor particularly low likelihood of dropping out.

^a Several different standardized, nationally normed math tests were administered to students, depending on the district where their school was located and the year they entered the study. National percentile scores were used because they were the only standardized scores available across tests.

^b Several different standardized, nationally normed reading tests were administered to students, depending on the district where their school was located and the year they entered the study. National percentile scores were used because they were the only standardized scores available across tests.

^c A student is defined as overage for grade at the time of random assignment if she or he turns 15 before the start of the 9th grade, or 16 before the start of the 10th grade. This indicates that the student was likely to have been held back in a previous grade.

^d Credits earned in 9th grade applies only to students who applied to the Career Academy at the end of their 9th-grade year.

^e Grade point averages were converted to a standard 4.0 scale from 100-point or 5-point scales for some sites.

Unit 2

**Comparison of Academy Students
and Non-Academy Students
with National Data**

In an effort to provide further context for evaluating the performance of students in the study sample, the report compares outcomes for the non-Academy group with similar students identified within a nationally representative sample. For this comparison, the Career Academies Evaluation drew on data collected from a nationally representative sample of students in the National Education Longitudinal Study (NELS) of 1988 through 2000. This section describes the NELS dataset and explains how outcomes for use in this comparison were estimated.

NELS, which is sponsored by the U.S. Department of Education, followed a nationally representative sample of nearly 25,000 students from the 8th grade through the eighth year following their scheduled graduation from high school. The first round of NELS surveys was administered to students in the 8th grade in 1988, and follow-up surveys were administered in 1990, 1992, 1994, and 2000. The study collected detailed demographic information as well as data on high school experiences and outcomes, post-secondary education, and employment. These data are publicly available through the National Center for Education Statistics.¹

The goal of this analysis was to identify a group of students in the NELS sample who were similar to the students in the Career Academies Evaluation in the following ways: the types of high schools they attended, the type of educational programs in which they were enrolled, and their individual background characteristics and school experiences prior to the 10th grade. Thus, only a subset of the full NELS sample was used in the analysis, and outcomes were adjusted to account for differences in measured background characteristics between the NELS and Career Academy samples. Following is an overview of the strategy and specific criteria used to identify such a comparison sample.

First, in order to maintain comparability with the schools in the Career Academies Evaluation, only NELS sample members from public, nonselective, comprehensive high schools located in urban school districts were included in the comparisons. The NELS variables specifying which were urban public schools were straightforward to interpret; however, in order to identify which high schools were comprehensive, it was necessary to rely on several different variables describing the types of schools that students attended. The following were excluded from the analysis: schools that never or rarely admitted students based on where they resided, schools that always admitted students based on admission tests or auditions, schools that always admitted students based on some other admission criteria, and students who were enrolled in special education programs for the physically and/or learning disabled.

¹For data products and a publications list, see the National Center for Education Statistics Web site: nces.ed.gov/surveys/nels88/.

Second, the analyses focused on three subsamples of students in the NELS database: (1) students who reported being enrolled in an academic-honors or college-preparatory program in their high school, (2) students who reported being enrolled in the high school's general curriculum program, and (3) students who reported being enrolled in a career, technical, or vocational program. In general, Career Academies tend to be a mix of these three types of high school programs or curriculum tracks, although they are less comparable to the academic-honors or college-preparatory programs than to the other two types of programs. Also, based on information from student transcripts, it appears that non-Academy students in the study sample tended to be enrolled in their high school's general curriculum program, and many of them took at least one career, vocational, or technical course.

Third, because virtually all the students in the non-Academy group completed the 9th grade, the analyses presented here focus on students in the NELS sample who were 10th-graders in 1990 (rather than on all students who were 8th-graders in 1988).

Once a comparison group was identified, a set of equivalent outcome measures was created. In general, the outcomes used by NELS were very similar to those measured in the Career Academies Evaluation. One significant difference, however, was that the NELS study followed students through eight years after their scheduled graduation from high school, whereas the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey was administered 48 months following scheduled graduation.

In order to make the outcome measures comparable, the analysis focuses only on outcomes attained by students in the NELS sample through June 1996 — 48 months after scheduled graduation. For example, any student who earned a high school credential after that point was considered a nongraduate for the purpose of the comparisons made in this report. Likewise, NELS data on post-secondary degree attainment also were truncated to cover the period through June 1996.

Finally, the outcomes for the NELS sample were regression-adjusted and mean-centered based on the distribution of background characteristics and prior school experiences among the non-Academy students in the Career Academies Evaluation sample. This means that the numbers presented from the NELS dataset in this report do not represent simple averages of outcomes for an subsample of NELS students. Rather, these adjustments allowed for a closer approximation of what the NELS outcome levels would have looked like if the NELS sample had a distribution of characteristics more like those in the Career Academies Evaluation sample.

By design, the measures of background characteristics collected by the Career Academies Evaluation at the start of the study are very similar to those used by NELS. This is because many of the questions used in the Career Academies Evaluation Baseline Questionnaire

were drawn from the NELS surveys.² Following is a list of the characteristics — all measured at baseline — that were used in the estimation of outcomes for the NELS sample:

- Gender
- Ethnicity
- Lives in a single-parent household
- Has an older sibling who dropped out of high school
- Is overage for his or her grade
- Has parents who did not finish high school
- Has limited English proficiency
- Is unsupervised for three or more hours per day
- 6th- to 8th-grade English grades
- 6th- to 8th-grade math grades
- Baseline year’s attendance rate (8th grade in NELS; 8th or 9th grade in the Career Academies Evaluation)

Adjusting the NELS outcomes to reflect the distribution of background characteristics in the Career Academy Evaluation sample entailed three steps: (1) using multiple regression to identify the relationship between each outcome and the above characteristics, for the full sample of urban public school students and for each of the three curriculum subgroups, (2) calculating the mean for the Career Academy Evaluation sample on each of the above characteristics, and (3) multiplying the Career Academy sample’s means by the parameter estimates from each regression and adding them to each intercept.

All these estimates incorporate analysis weights calculated by NELS researchers to account for both intentional oversampling of certain groups (for example, Hispanic students) as well as survey nonresponse (the 2000 survey achieved a 77 percent unweighted response rate, or an 83 percent weighted response rate).³ These weights were calculated for the full sample and

²James J. Kemple and JoAnn Leah Rock, *Career Academies: Early Implementation Lessons from a 10-Site Evaluation* (New York: MDRC, 1996).

³See National Center for Education Statistics, *National Education Longitudinal Study of 1988: Base-Year to Fourth Follow-Up Data File User’s Manual* (Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics, 2002), p. 128. See in particular Chapter III: “Sample Design, Weighting, and Design Effects.”

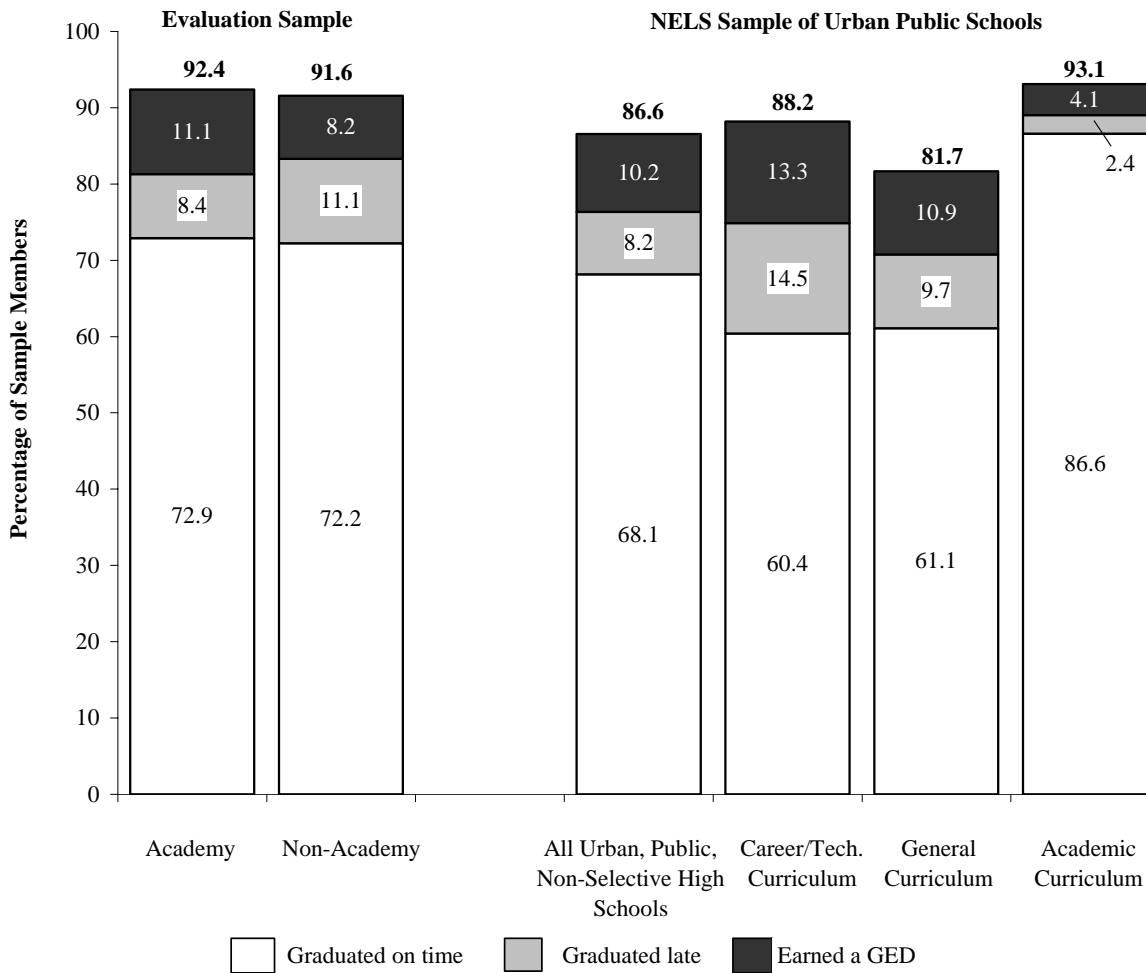
may be less accurate when applied to smaller subgroups. Given that the sample sizes for the curriculum subgroups within urban, public, nonselective schools were well under 1,000 students each, one should be somewhat more skeptical of the individual estimates for these groups.

Exhibits 2.1 and 2.2 present the unadjusted NELS estimates of high school completion and post-secondary attainment rates, respectively. Exhibits 2.3 and 2.4 present the NELS estimates after they were adjusted to account for the distribution of characteristics represented in the Career Academies Evaluation sample as discussed above.

Career Academies Evaluation

Exhibit 2.1

**Unadjusted High School Completion Rates Four Years After High School
for the Evaluation Sample and the NELS Sample**



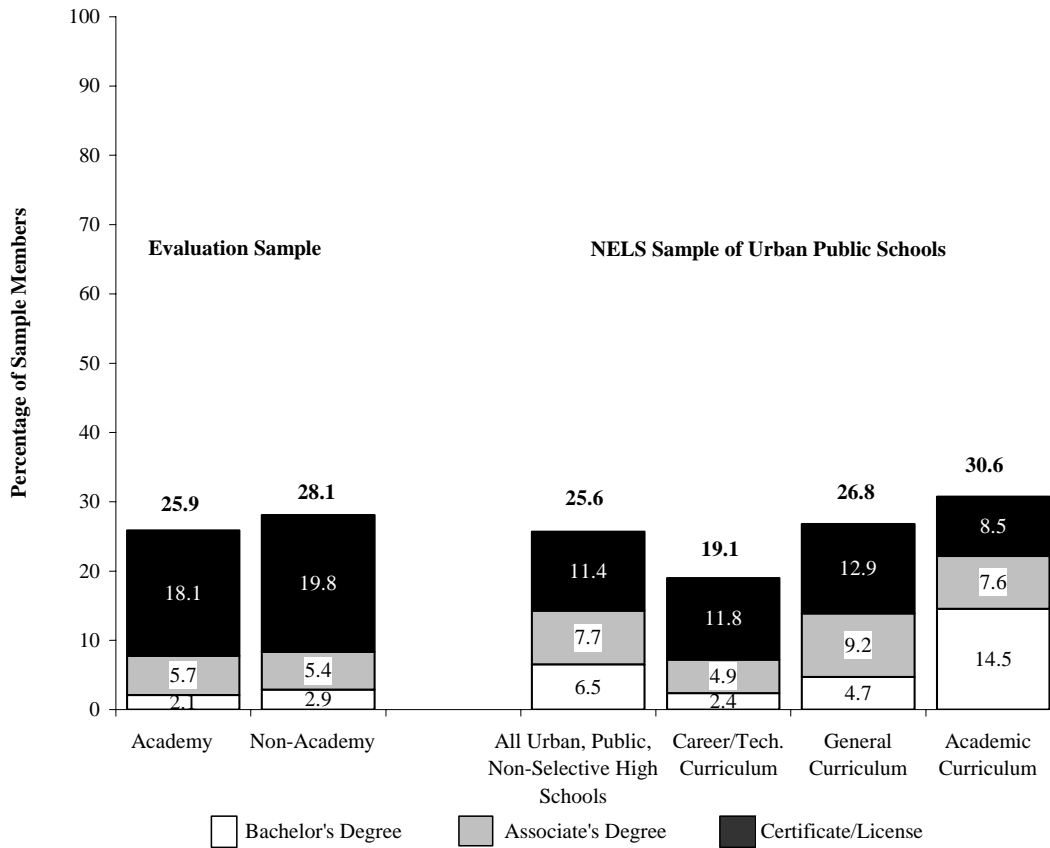
SOURCE: MDRC calculations from the Career Academies Evaluation Post-High School Follow-Up Survey Database and the National Education Longitudinal Study (NELS), 1988-2000 public-use data files.

NOTES: All measures reflect completion status forty-eight months following scheduled high school graduation. Students were considered on-time graduates if they received their diploma by the end of June in the year they were scheduled to graduate. Estimates for all urban, public, non-selective high schools includes some students who either did not report a specific high school curriculum or reported a type of curriculum other than the three shown. The NELS estimates incorporate weights that account for nonresponse and project to the population of students who were enrolled in 10th grade in 1990. These estimates may be less accurate for smaller subgroups, such as the curriculum subgroups within urban, public schools. No tests of statistical significance were performed.

Career Academies Evaluation

Exhibit 2.2

**Unadjusted Degree Completion Rates Four Years After High School
for the Evaluation Sample and the NELS Sample**



SOURCE: MDRC calculations from the Career Academies Evaluation Post-High School Follow-Up Survey Database and the National Education Longitudinal Study (NELS), 1988-2000 public-use data files.

NOTES: All measures reflect completion status forty-eight months following scheduled high school graduation. Only students who graduated from high school or earned a GED were given credit for completing post-secondary degrees.

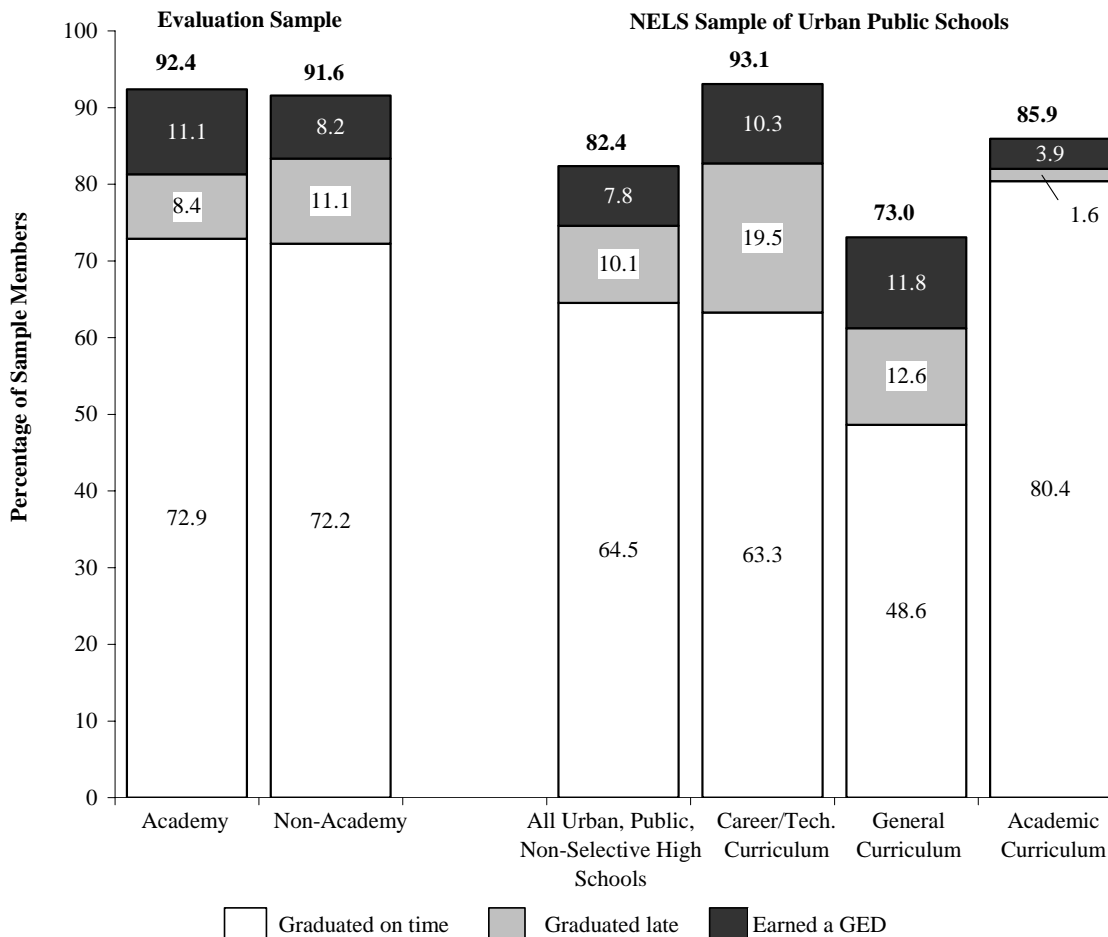
Estimates for all urban, public, non-selective high schools includes some students who either did not report a specific high school curriculum or reported a type of curriculum other than the three shown.

The NELS estimates incorporate weights that account for nonresponse and project to the population of students who were enrolled in 10th grade in 1990. These estimates may be less accurate for smaller subgroups, such as the curriculum subgroups within urban, public schools. No tests of statistical significance were performed.

Career Academies Evaluation

Exhibit 2.3

Adjusted High School Completion Rates Four Years After High School for the Evaluation Sample and the NELS Sample



SOURCE: MDRC calculations from the Career Academies Evaluation Post-High School Follow-Up Survey Database and the National Education Longitudinal Study (NELS), 1988-2000 public-use data files.

NOTES: All measures reflect completion status forty-eight months following scheduled high school graduation.

Students were considered on-time graduates if they received their diploma by the end of June in the year they were scheduled to graduate.

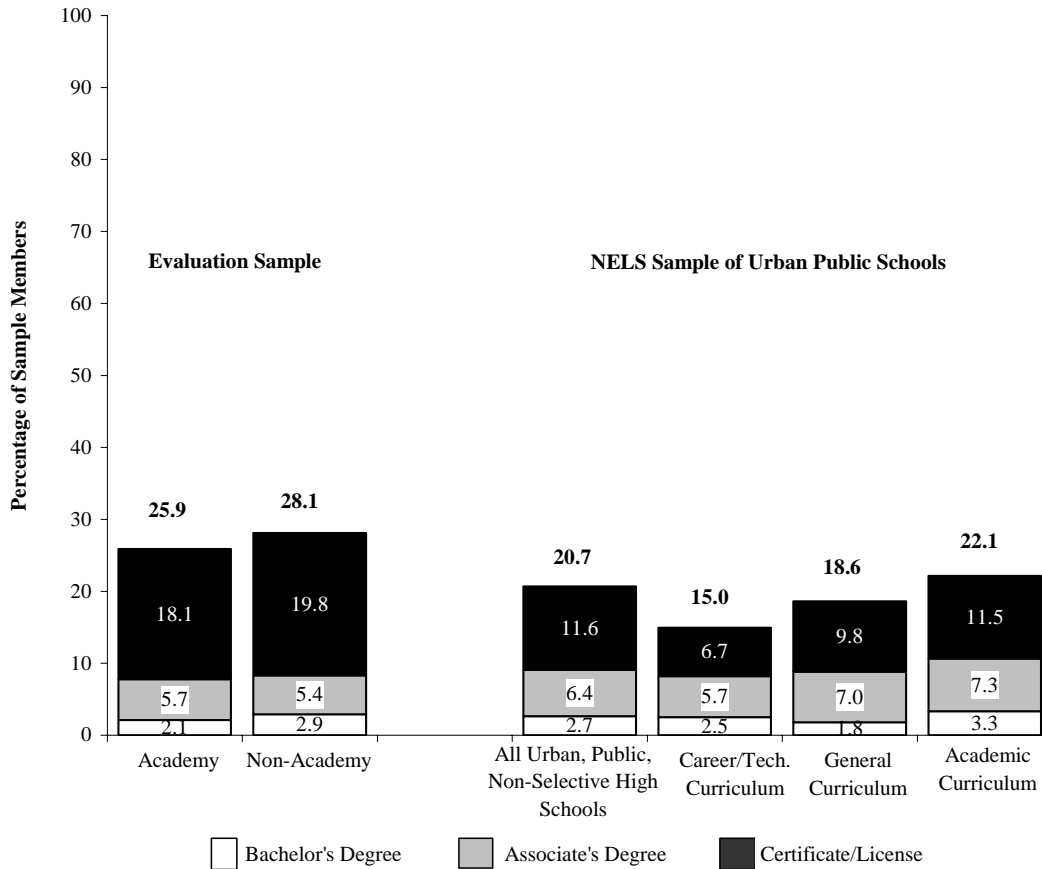
Estimates for all urban, public, non-selective high schools includes some students who either did not report a specific high school curriculum or reported a type of curriculum other than the three shown.

The NELS estimates incorporate weights that account for nonresponse and project to the population of students who were enrolled in 10th grade in 1990. These estimates may be less accurate for smaller subgroups, such as the curriculum subgroups within urban, public schools. In addition, the NELS estimates are adjusted to reflect a sample of students with the same distribution of background characteristics as the non-Academy evaluation sample. No tests of statistical significance were performed.

Career Academies Evaluation

Exhibit 2.4

**Adjusted Degree Completion Rates Four Years After High School
for the Evaluation Sample and the NELS Sample**



SOURCES: MDRC calculations from the Career Academies Evaluation Post-High School Follow-Up Survey Database and the National Education Longitudinal Study (NELS), 1988-2000 public-use data files.

NOTES: All measures reflect completion status 48 months following scheduled high school graduation.

Only students who graduated from high school or earned a GED were given credit for completing post-secondary degrees.

Estimates for all urban, public, non-selective high schools include some students who either did not report a specific high school curriculum or reported a type of curriculum other than the three shown.

The NELS estimates incorporate weights that account for nonresponse and project to the population of students who were enrolled in 10th grade in 1990. These estimates may be less accurate for smaller subgroups, such as the curriculum subgroups within urban, public schools. In addition, the NELS estimates were adjusted to reflect a sample of students with the same distribution of background characteristics as the Non-Academy evaluation sample. No tests of statistical significance were performed.

Unit 3

Impacts for the Full Study Sample

Career Academies Evaluation

Exhibit 3.1

Year-by-Year Impacts on Employment and Earnings for the Full Study Sample

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
<u>Years 1-4</u>					
Ever employed (%)	98.6	97.1	1.5 *	1.6	<i>1.9</i>
Ever employed full-time ¹ (%)	95.2	92.5	2.7 **	2.9	<i>3.4</i>
Months employed	36.6	35.3	1.3 *	3.7	<i>1.6</i>
Months employed full-time	29.5	27.5	2.0 **	7.4	<i>2.5</i>
Average monthly earnings (\$)	1,145.59	1,038.66	106.94 **	10.3	<i>132.78</i>
Average weekly hours worked	30.0	28.1	1.9 **	6.6	<i>2.3</i>
Average hourly wage (\$)	9.19	8.72	0.47 **	5.4	<i>0.58</i>
Total number of jobs held	3.1	3.1	0.0	0.8	<i>0.0</i>
Average job duration, in months	16.1	15.8	0.3	1.9	<i>0.4</i>
<u>Year 1</u>					
Ever employed (%)	85.2	82.5	2.7	3.3	<i>3.4</i>
Ever employed full-time ¹ (%)	69.2	66.2	3.0	4.6	<i>3.8</i>
Months employed	8.0	7.6	0.4	5.3	<i>0.5</i>
Months employed full-time	5.9	5.6	0.3	6.1	<i>0.4</i>
Average monthly earnings (\$)	806.67	724.65	82.02 **	11.3	<i>101.84</i>
Average weekly hours worked	24.8	23.1	1.7 *	7.3	<i>2.1</i>
Average hourly wage (\$)	6.78	6.27	0.51 **	8.2	<i>0.63</i>
<u>Year 2</u>					
Ever employed (%)	90.7	90.0	0.8	0.9	<i>1.0</i>
Ever employed full-time ¹ (%)	77.8	75.7	2.0	2.7	<i>2.5</i>
Months employed	9.3	9.0	0.3	3.1	<i>0.3</i>
Months employed full-time	7.3	6.9	0.4	6.4	<i>0.5</i>
Average monthly earnings (\$)	1,077.36	981.45	95.91 **	9.8	<i>119.08</i>
Average weekly hours worked	30.2	28.5	1.7 *	5.9	<i>2.1</i>
Average hourly wage (\$)	7.90	7.74	0.16	2.0	<i>0.20</i>
<u>Year 3</u>					
Ever employed (%)	93.3	89.9	3.4 **	3.8	<i>4.2</i>
Ever employed full-time ¹ (%)	83.0	78.2	4.8 **	6.2	<i>6.0</i>
Months employed	9.5	9.3	0.3	2.9	<i>0.3</i>
Months employed full-time	8.0	7.3	0.6 **	8.5	<i>0.8</i>
Average monthly earnings (\$)	1,254.86	1,149.61	105.25 *	9.2	<i>130.68</i>
Average weekly hours worked	32.1	30.2	1.9 *	6.4	<i>2.4</i>
Average hourly wage (\$)	8.93	8.36	0.57 **	6.8	<i>0.71</i>
Sample size (N=1,458)	799	659			

(continued)

Exhibit 3.1 (continued)

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
<u>Year 4</u>					
Ever employed (%)	91.8	90.8	1.1	1.2	<i>1.3</i>
Ever employed full-time ¹ (%)	83.8	79.5	4.3 **	5.4	<i>5.3</i>
Months employed	9.8	9.4	0.4	3.7	<i>0.4</i>
Months employed full-time	8.3	7.7	0.6 **	8.1	<i>0.8</i>
Average monthly earnings (\$)	1,439.43	1,298.02	141.41 **	10.9	<i>175.58</i>
Average weekly hours worked	32.9	30.7	2.1 **	6.9	<i>2.6</i>
Average hourly wage (\$)	9.85	9.39	0.45 *	4.8	<i>0.56</i>
<u>Last Quarter</u>					
Ever employed (%)	85.0	82.2	2.9	3.5	<i>3.5</i>
Ever employed full-time ¹ (%)	73.9	69.3	4.6 *	6.7	<i>5.7</i>
Months employed	2.4	2.4	0.1	2.1	<i>0.1</i>
Months employed full-time	2.1	2.0	0.1	6.1	<i>0.1</i>
Average monthly earnings (\$)	1,488.49	1,381.92	106.57 *	7.7	<i>132.32</i>
Average weekly hours worked	32.7	31.2	1.5	4.8	<i>1.9</i>
Average hourly wage (\$)	9.60	9.03	0.57 *	6.3	<i>0.71</i>
Sample size (N=1,458)	799	659			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students. See Exhibit 3.6 for the percentage of the Academy and the non-Academy group ever enrolled in a Career Academy.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

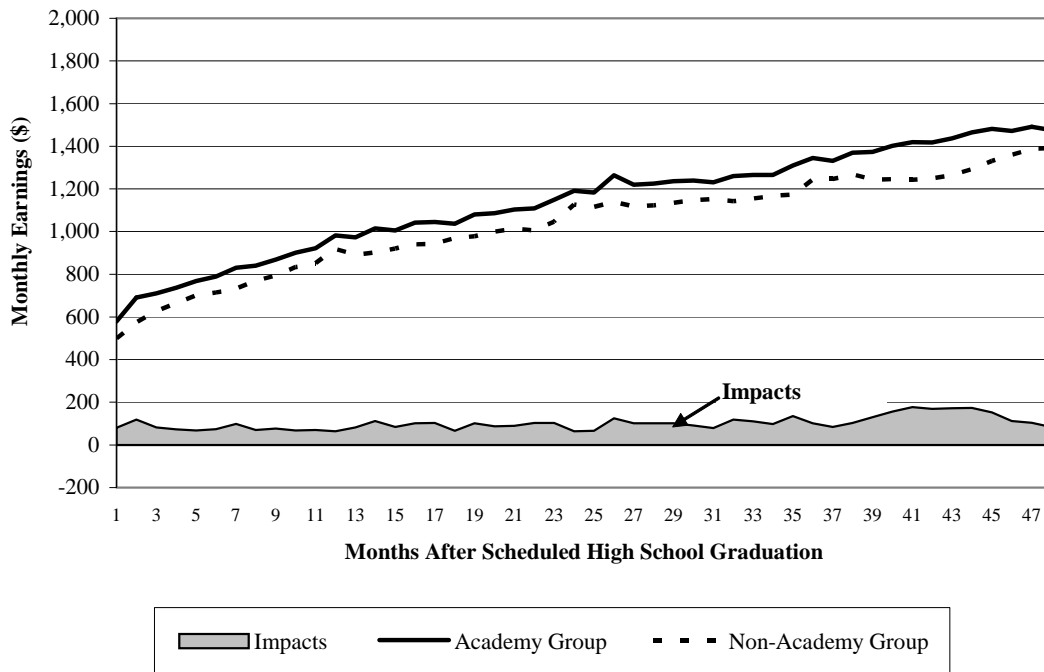
For respondents who were never employed during a given month, earnings, hours, and wages are included in these averages as zeros.

¹Students were considered employed full-time if they reported working 30 or more hours per week.

Career Academies Evaluation

Exhibit 3.2

Month-by-Month Impacts on Total Monthly Earnings for the Full Study Sample



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Differences in monthly earnings are significant at the .10 level or lower in 37 out of the 48 months studied.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending wage at each job, and this rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average earnings.

For respondents who were never employed during a given month, earnings are included in these averages as zeros.

Career Academies Evaluation

Exhibit 3.3

Impacts on the Distribution of Earnings, Hours Worked, and Wages for the Full Study Sample

Outcome (%)	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Average monthly earnings					
\$0 - \$824	35.1	38.3	-3.2	-8.3	-3.9
\$825 - \$1,237	25.7	28.8	-3.1	-10.8	-3.9
\$1,238 - \$1,442	11.5	8.6	2.9 *	33.5	3.6
\$1,443 - \$1,648	7.7	7.3	0.4	5.2	0.5
\$1,649 or more	18.8	14.2	4.6 **	32.4	5.7
Average weekly hours worked					
0 - 10	7.9	8.4	-0.5	-5.4	-0.6
10 - 25	26.2	28.1	-1.9	-6.8	-2.4
26 - 35	27.2	29.9	-2.7	-9.0	-3.3
36 - 45	27.4	23.7	3.7	15.5	4.6
46 or more	10.1	7.1	3.0 *	42.7	3.8
Average hourly wage ¹					
\$0 - \$5.15 (MW)	2.7	2.1	0.6	30.5	0.8
\$5.16 - \$7.73 (1.5xMW)	32.0	32.8	-0.8	-2.3	-1.0
\$7.74 - \$9.01 (1.75xMW)	22.5	24.9	-2.3	-9.4	-2.9
\$9.02 - \$10.30 (2.0xMW)	15.1	16.0	-1.0	-6.0	-1.2
\$10.31 or more	26.4	21.5	5.0 **	23.2	6.2
Sample size (N=1,458)	799	659			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using ordinary least squares, controlling for background characteristics. Rounding may cause slight discrepancies in calculating differences and sums. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

For respondents who were never employed during a given month, earnings, hours, and wages are included in these distributions as zeros.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

¹The upper end of the categories of average hourly wage was set as a multiple of the minimum wage (MW), which from 1997-2003 was \$5.15 per hour.

Career Academies Evaluation

Exhibit 3.4

Components of the Impact on Average Monthly Earnings for the Full Study Sample

Outcome	Academy Group	Non-Academy Group	Difference
Average monthly earnings (\$)	1,145.59	1,038.66	106.94
Ever employed (%)	98.61	97.11	1.50
Months employed, for those ever employed	37.08	36.35	0.73
Average monthly earnings during months employed, for those who were ever employed (\$)	1,443.35	1,372.19	71.16
Average weekly hours during months employed, for those who were ever employed	38.65	37.93	0.72
Average hourly wage during months employed, for those who were ever employed (\$)	9.28	8.96	0.32

Proportion of the Impact on Average Monthly Earnings Due to Each Component

Components of average monthly earnings impact	\$	(%)	\$
Impact due to an increase in percentage ever employed	15.59	14.07	15.04
Impact due to increase in months worked, for those ever employed	20.87	18.83	20.14
Impact due to increase in hours worked while working, for those ever employed	25.80	23.29	24.90
Impact due to an increase in hourly wage	48.55	43.81	46.85
Total impact¹	110.81	100.00	106.94

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: These calculations assume that all components of earnings are independent. This method examined each measure in isolation and calculated how the impact on that measure would change average monthly earnings, if all other components of earnings were held constant. For example, to calculate the impact due solely to the increase in wages, the impact on wages (\$0.32 per hour) was multiplied by the number of hours that the control group worked in each month (37.9 hours per week times 4 weeks per month).

¹Interactions among wages, hours worked, and months worked were not accounted for; therefore, these calculations are not exact. For comparison with the actual impact of \$106.94 per month, the components were also expressed as a percentage of the earnings impact. Finally, these percentages were applied to the actual impact to attain the numbers in the rightmost column.

Career Academies Evaluation

Exhibit 3.5

**Differences in Characteristics of the Most Recent Job Held
for Those Who Were Employed in the Last Quarter
for the Full Study Sample**

Outcome	Academy Group	Non-Academy Group	Difference
<i>Job duration in months</i>	18.0	17.9	0.2
<i>Month last worked (relative)</i>	46.2	46.1	0.1
<i>Managerial/supervisory position (%)</i>	8.6	7.2	1.4
<i>Occupational group (%)¹</i>			
<i>Management/professional</i>	24.7	23.3	1.4
<i>Food service and personal service</i>	10.7	9.9	0.8
<i>Sales and related</i>	15.7	14.0	1.7
<i>Office and administrative support</i>	29.8	33.1	-3.3
<i>Construction, production, repair, military</i>	18.8	19.5	-0.7
<i>Average monthly earnings² (\$)</i>	1,529.99	1,455.91	74.08 *
<i>At start of job</i>	1,385.54	1,315.21	70.34
<i>At end of job</i>	1,706.85	1,633.07	73.78
<i>Difference</i>	321.55	318.54	3.01
<i>Average hours per week</i>	37.0	36.1	0.9
<i>At start of job</i>	35.9	35.3	0.6
<i>At end of job</i>	38.5	37.4	1.1 *
<i>Difference</i>	2.6	2.1	0.5
<i>Average hourly wage (\$)</i>	10.32	9.96	0.36
<i>At start of job</i>	9.68	9.26	0.43
<i>At end of job</i>	11.04	10.82	0.23
<i>Difference</i>	1.35	1.56	-0.21
<i>Job offers full benefits³ (%)</i>	43.3	40.6	2.7
<i>Health plan</i>	59.8	59.8	0.0
<i>Sick leave</i>	57.8	54.4	3.4
<i>Paid vacation days</i>	59.0	56.4	2.6
<i>Retirement plan</i>	46.2	44.7	1.5
<i>Uses/used a computer at this job (%)</i>	71.6	68.8	2.8
<i>Often/always performed physically demanding tasks</i>	27.4	29.7	-2.3
<i>Very satisfied at job (%)</i>	48.6	46.2	2.4
<i>Very likely to be promoted in the next year⁴ (%)</i>	43.7	36.8	6.9 **
<i>Job is/was directly related to high school (%)</i>	27.3	21.9	5.4 **
Sample size (N=1,423)	786	637	

(continued)

Exhibit 3.5 (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: All measures apply to jobs held in the last three months of the 48-month follow-up period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using ordinary least squares, controlling for background characteristics. Rounding may cause slight discrepancies in calculating differences and sums. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Measures are italicized because they refer only to those students who were employed during the last three months of the follow-up period, and thus do not represent a direct experimental comparison of Academy and non-Academy students.

¹Occupational groups are based on the U.S. Department of Labor's Standard Occupational Classification (SOC) system.

²Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

³Full benefits include health plan, sick leave, paid vacation days, and retirement plan.

⁴Likelihood of being promoted was only asked of those who were employed at the time of the interview (n=1,224).

Career Academies Evaluation
Exhibit 3.6
Impacts on Educational Attainment
for the Full Study Sample

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Ever enrolled in a Career Academy during high school (%)	86.8	6.3	80.5 ***	--	--
Was enrolled in a Career Academy at the end of scheduled grade 12 (%)	53.1	4.1	49.0 ***	--	--
<u>High school completion status (%)</u>					
Earned high school diploma or GED	92.3	91.5	0.8	0.9	1.0
Earned high school diploma	81.3	83.3	-2.0	-2.4	-2.5
On-time graduate ¹	72.9	72.2	0.7	0.9	0.8
Late graduate	8.4	11.1	-2.7 *	-24.3	-3.3
Earned a GED	11.1	8.2	2.9 *	34.7	3.6
<u>Post-secondary education enrollment² (%)</u>					
Ever enrolled in post-secondary education	79.0	80.1	-1.1	-1.3	-1.3
Highest post-secondary education enrollment					
Four-year college	25.8	25.1	0.7	2.9	0.9
Two-year college	38.1	37.7	0.4	1.0	0.5
Skills training, technical or trade school	15.3	17.3	-2.0	-11.6	-2.5
Months enrolled in post-secondary education	21.3	21.7	-0.3	-1.6	-0.4
<u>Highest credential completed or in progress³ (%)</u>					
Any post-secondary credential	55.5	56.7	-1.2	-2.0	-1.4
Completed	26.0	28.2	-2.2	-7.7	-2.7
In progress	29.6	28.5	1.1	3.8	1.4
Bachelor's degree	16.3	17.5	-1.1	-6.5	-1.4
Completed	2.1	2.9	-0.8	-26.9	-1.0
In progress	14.2	14.6	-0.4	-2.4	-0.4
Associate's degree	18.7	17.1	1.7	9.7	2.1
Completed	5.7	5.4	0.2	4.4	0.3
In progress	13.0	11.6	1.4	12.1	1.8
Skills training certificate or license	20.5	22.2	-1.7	-7.5	-2.1
Completed	18.1	19.8	-1.7	-8.5	-2.1
In progress	2.5	2.4	0.1	2.3	0.1
<u>Years of schooling completed⁴</u>	12.6	12.7	0.0	-0.2	0.0
Sample size (N=1,458)	799	659			

(continued)

Exhibit 3.6 (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

¹Students were considered on-time graduates if they graduated in June or earlier of the year they were scheduled to graduate.

²Students must have earned a high school diploma or GED to be considered enrolled in a post-secondary education program.

³A credential was considered "in progress" if the student reported attempting it in a program that he/she was currently attending (within three months of the end of the follow-up period) and expected to complete.

⁴Years of school completed was calculated by assigning 12 years to a completed high school diploma or GED, 14 years to an associate's or 16 years to a completed bachelor's degree. For those who did not complete an associate's or a bachelor's degree, years of school completed was calculated as 12 plus the percentage of the degree completed through the end of the follow-up period. For those who did not complete a high school diploma or a GED, years of school completed was calculated as a percentage of the 12 years given for a completed high school diploma or a GED.

Career Academies Evaluation

Exhibit 3.7

**Characteristics of the Most Recent Educational Program Attended
for Those Who Ever Enrolled in Any Program**

Outcome	Academy Group	Non-Academy Group	Difference
<i>Duration of attendance in months</i>	20.3	21.4	-1.1
<i>Month of last attendance (relative to scheduled high school graduation)</i>	37.2	37.8	-0.6
<i>Hours per week in class</i>	19.2	18.4	0.8
<i>School considered student full-time (%)</i>	69.7	66.3	3.4
<i>Took basic reading/math class (%)</i>	36.3	32.9	3.5
<i>Credential earned or attempted (%)</i>			
<i>Bachelor's degree</i>	24.4	25.6	-1.2
<i>Associate's degree</i>	36.2	35.5	0.8
<i>Certificate or license</i>	24.4	25.6	-1.2
<i>High school diploma or GED</i>	4.7	4.0	0.6
<i>No credential</i>	10.5	9.2	1.3
<i>Financial resources¹ (%)</i>			
<i>Bank or government loans</i>	21.6	22.5	-0.9
<i>Scholarships and grants</i>	42.7	42.7	0.0
<i>Work-study programs</i>	2.6	2.8	-0.2
<i>Personal savings</i>	11.2	10.2	1.1
<i>Family</i>	13.5	14.7	-1.2
<i>Employment while attending school</i>	42.3	39.0	3.3
<i>Financial aid from employer</i>	7.3	7.0	0.3
<i>Completed program (%)</i>	27.5	30.6	-3.0
<i>Still enrolled (%)</i>	41.9	39.6	2.2
<i>Left program without completing it (%)</i>	30.6	29.8	0.8
<i>Primary reason for leaving, for those who left² (%)</i>			
<i>School-related reason</i>	12.7	11.9	0.8
<i>Personal reason</i>	30.2	27.9	2.3
<i>Financial/employment reason</i>	47.6	48.0	-0.4
<i>Other reason</i>	9.4	12.2	-2.8
Sample size (N=1,208)	659	549	

(continued)

Exhibit 3.7 (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using ordinary least squares, controlling for background characteristics. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Measures are italicized because they refer only to those students who ever attended a post-secondary education program, and thus do not represent a direct experimental comparison of Academy and non-Academy students.

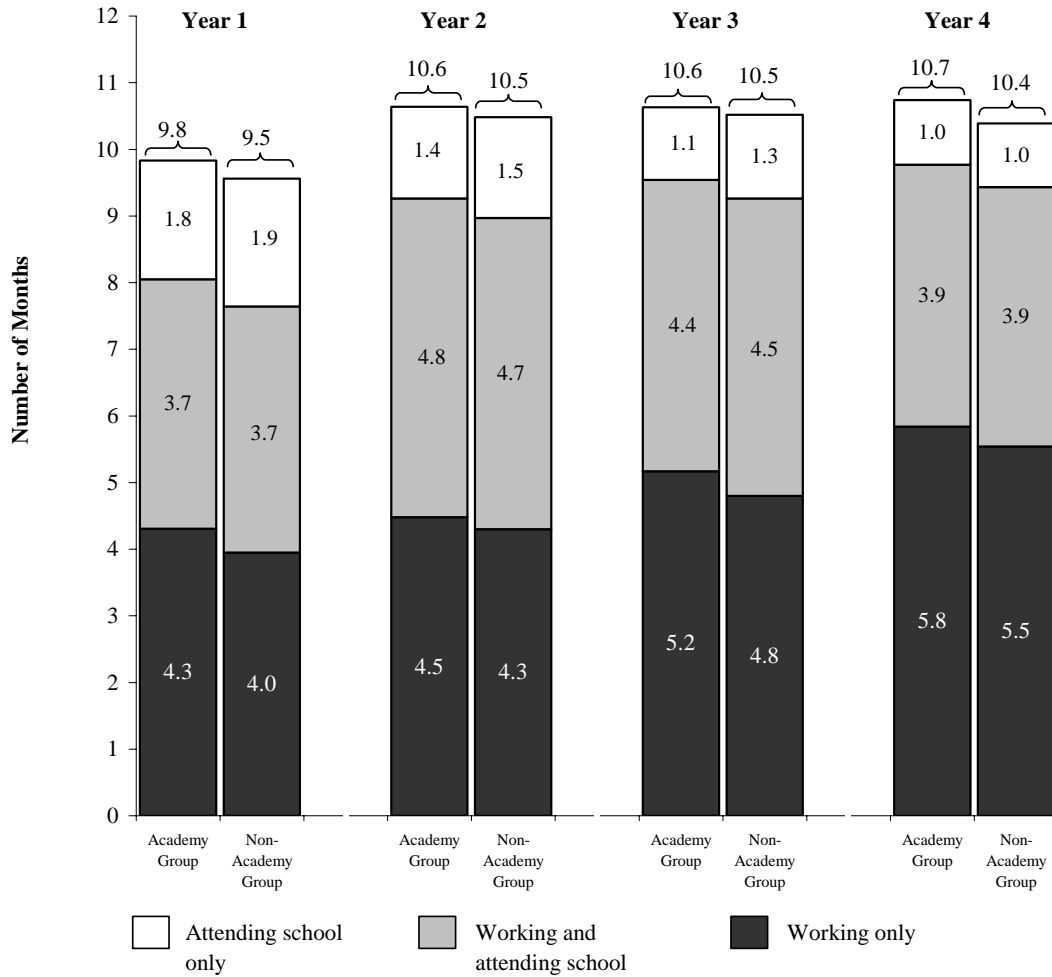
¹Individuals were asked how the education programs they attended were financed. Because the categories they reported are not mutually exclusive, these percentages do not add up to 100 percent.

²Only students who left the program without completing it were asked about their reason for leaving (n=364).

Career Academies Evaluation

Exhibit 3.8

Year-by-Year Impacts on Months Spent Attending School or Working for the Full Study Sample



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: All measures reflect the average number of months spent in each status during each year of the 48-month follow-up period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the Academy and non-Academy groups. The difference between total months in any activity in year 4 was significant at .1 or lower.

Career Academies Evaluation

Exhibit 3.9

Impacts on Family Formation, Public Assistance, and Behaviors for the Full Study Sample

Outcome (%)	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Is a parent	36.8	35.2	1.7	4.8	<i>2.1</i>
Is a custodial single parent	19.0	17.3	1.8	10.2	<i>2.2</i>
Marital Status					
Married	19.8	19.3	0.5	2.5	<i>0.6</i>
Single	77.0	78.3	-1.3	-1.6	<i>-1.6</i>
Divorced, separated, or widowed	3.2	2.3	0.8	35.2	<i>1.0</i>
Lives with parent(s) or guardian(s)	48.2	52.3	-4.1	-7.8	<i>-5.0</i>
Ever gone without health insurance in past year	27.1	31.3	-4.2 *	-13.3	<i>-5.2</i>
Received TANF or cash assistance in past year	7.2	5.9	1.3	22.0	<i>1.6</i>
Received food stamps in the past year	9.8	8.0	1.8	22.2	<i>2.2</i>
Registered to vote	66.3	64.7	1.6	2.5	<i>2.0</i>
Any recent illegal or drug-related activity ¹	6.7	6.2	0.6	9.1	<i>0.7</i>
Sample size (N=1,458)	799	659			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses were reported for the end of a 48-month period ending in June of 2000, 2002, or 2002: the fourth year following scheduled high school graduation. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students. See Exhibit 3.6.

¹This measure includes illegal drug use in the past 2 weeks, breaking the law (other than traffic violations) in the past 2 weeks, current gang membership, and any arrests or convictions in the past year.

Unit 4

Impacts for Gender Subgroups

Career Academies Evaluation

Exhibit 4.1-YM

**Year-by-Year Impacts on Employment and Earnings
for Young Men**

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	Impact per Enrollee
<u>Years 1-4</u>					
Ever employed (%)	99.5	96.2	3.4 ***	3.5	4.0
Ever employed full-time ¹ (%)	96.8	92.1	4.7 **	5.2	5.7
Months employed	38.8	36.0	2.8 **	7.9	3.4
Months employed full-time	32.8	28.4	4.4 ***	15.5	5.3
Average monthly earnings (\$)	1,373.00	1,161.07	211.93 **	18.3	254.05
Average weekly hours worked	34.2	30.0	4.2 ***	14.0	5.0
Average hourly wage (\$)	9.75	9.01	0.74 **	8.2	0.89
Total number of jobs held	3.2	3.2	0.0	1.1	0.0
Average job duration, in months	16.9	16.1	0.9	5.3	1.0
<u>Year 1</u>					
Ever employed (%)	88.6	84.0	4.6	5.5	5.5
Ever employed full-time ¹ (%)	77.2	68.7	8.5 **	12.4	10.2
Months employed	8.6	7.8	0.8 **	10.2	1.0
Months employed full-time	6.9	5.8	1.1 **	19.8	1.4
Average monthly earnings (\$)	995.77	789.86	205.91 ***	26.1	246.84
Average weekly hours worked	28.7	24.5	4.2 **	17.0	5.0
Average hourly wage (\$)	7.50	6.64	0.87 **	13.1	1.04
<u>Year 2</u>					
Ever employed (%)	93.9	89.5	4.4 *	4.9	5.3
Ever employed full-time ¹ (%)	82.8	76.4	6.4 *	8.4	7.7
Months employed	10.0	9.1	0.9 **	9.9	1.1
Months employed full-time	8.3	7.1	1.2 ***	16.4	1.4
Average monthly earnings (\$)	1,294.36	1,092.53	201.83 **	18.5	241.94
Average weekly hours worked	34.7	30.4	4.3 **	14.1	5.1
Average hourly wage (\$)	8.62	8.23	0.39	4.8	0.47
<u>Year 3</u>					
Ever employed (%)	96.8	90.3	6.6 ***	7.3	7.9
Ever employed full-time ¹ (%)	87.5	75.7	11.8 ***	15.6	14.1
Months employed	10.0	9.6	0.4	4.5	0.5
Months employed full-time	8.6	7.7	0.9 **	11.3	1.0
Average monthly earnings (\$)	1,488.36	1,322.22	166.13	12.6	199.15
Average weekly hours worked	36.4	32.6	3.8 **	11.5	4.5
Average hourly wage (\$)	9.65	8.85	0.80 **	9.1	0.96
Sample size (N=604)	331	273			

(continued)

Exhibit 4.1-YM (continued)

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
<u>Year 4</u>					
Ever employed (%)	93.9	90.3	3.6	3.9	<i>4.3</i>
Ever employed full-time ¹ (%)	87.3	80.5	6.8 **	8.4	<i>8.1</i>
Months employed	10.1	9.5	0.7 **	7.0	<i>0.8</i>
Months employed full-time	9.0	7.8	1.2 ***	15.3	<i>1.4</i>
Average monthly earnings (\$)	1,718.55	1,450.48	268.08 **	18.5	<i>321.36</i>
Average weekly hours worked	37.1	32.5	4.6 **	14.1	<i>5.5</i>
Average hourly wage (\$)	10.72	9.93	0.78	7.9	<i>0.94</i>
<u>Last Quarter</u>					
Ever employed (%)	87.5	84.3	3.3	3.9	<i>3.9</i>
Ever employed full-time ¹ (%)	78.7	71.3	7.4 **	10.4	<i>8.9</i>
Months employed	2.5	2.5	0.1	3.3	<i>0.1</i>
Months employed full-time	2.3	2.0	0.2 **	10.9	<i>0.3</i>
Average monthly earnings (\$)	1,782.16	1,567.09	215.07 *	13.7	<i>257.82</i>
Average weekly hours worked	37.0	33.3	3.7 **	11.2	<i>4.5</i>
Average hourly wage (\$)	10.53	9.84	0.68	7.0	<i>0.82</i>
Sample size (N=604)	331	273			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students. See Exhibit 3.6 for the percentage of the Academy and the non-Academy group ever enrolled in a Career Academy.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

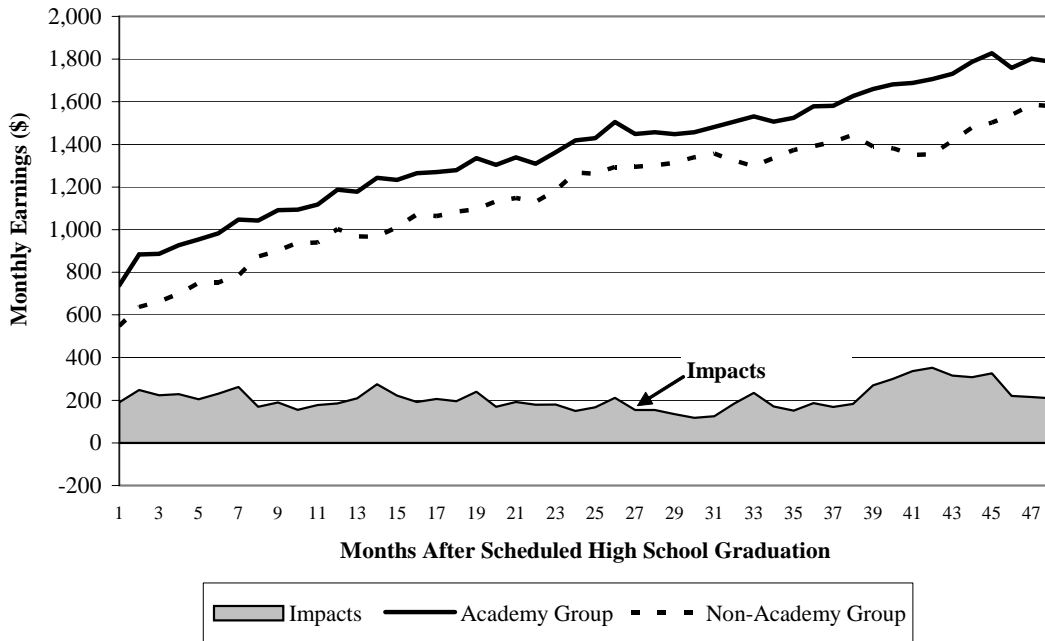
For respondents who were never employed during a given month, earnings, hours, and wages are included in these averages as zeros.

¹Students were considered employed full-time if they reported working 30 or more hours per week.

Career Academies Evaluation

Exhibit 4.2-YM

Month-by-Month Impacts on Total Monthly Earnings for Young Men



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Differences in monthly earnings are significant at the .10 level or lower in 37 out of the 48 months studied.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending wage at each job, and this rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average earnings.

For respondents who were never employed during a given month, earnings are included in these averages as zeros.

Career Academies Evaluation

Exhibit 4.3-YM

Impacts on the Distribution of Earnings, Hours Worked, and Wages for the Young Men

Outcome (%)	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Average monthly earnings					
\$0 - \$824	25.7	32.1	-6.4 *	-19.9	-7.7
\$825 - \$1,237	24.8	25.1	-0.3	-1.2	-0.4
\$1,238 - \$1,442	13.4	8.6	4.8 *	55.8	5.8
\$1,443 - \$1,648	9.0	7.8	1.2	15.1	1.4
\$1,649 or more	26.5	22.5	4.0	17.9	4.8
Average weekly hours worked					
0 - 10	6.4	8.1	-1.7	-20.6	-2.0
10 - 25	18.9	22.9	-4.1	-17.7	-4.9
26 - 35	24.9	27.4	-2.5	-9.2	-3.0
36 - 45	33.0	25.7	7.3 *	28.4	8.8
46 or more	16.1	12.1	4.0	33.2	4.8
Average hourly wage ¹					
\$0 - \$5.15 (MW)	3.3	2.6	0.7	27.5	0.9
\$5.16 - \$7.73 (1.5xMW)	24.2	28.4	-4.2	-14.8	-5.0
\$7.74 - \$9.01 (1.75xMW)	22.5	18.5	4.0	21.7	4.8
\$9.02 - \$10.30 (2.0xMW)	16.1	17.7	-1.6	-8.7	-1.9
\$10.31 or more	32.9	28.5	4.5	15.7	5.3
Sample size (N=604)	331	273			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using ordinary least squares, controlling for background characteristics. Rounding may cause slight discrepancies in calculating differences and sums. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

For respondents who were never employed during a given month, earnings, hours, and wages are included in these distributions as zeros.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

¹The upper end of the categories of average hourly wage was set as a multiple of the minimum wage (MW), which from 1997-2003 was \$5.15 per hour.

Career Academies Evaluation

Exhibit 4.4-YM

**Components of the Impact on Average Monthly Earnings
for Young Men**

Outcome	Academy Group	Non-Academy Group	Difference
Average monthly earnings (\$)	1,373.00	1,161.07	211.93
Ever employed (%)	99.52	96.17	3.35
Months employed, for those ever employed	38.94	37.41	1.53
Average monthly earnings during months employed, for those who were ever employed (\$)	1,641.67	1,485.54	156.13
Average weekly hours during months employed, for those who were ever employed	41.55	39.37	2.19
Average hourly wage during months employed, for those who were ever employed (\$)	9.78	9.37	0.41

**Proportion of the Impact on Average Monthly Earnings
Due to Each Component**

Components of average monthly earnings impact	\$	(%)	\$
Impact due to an increase in percentage ever employed	38.79	16.66	17.82
Impact due to increase in months worked, for those ever employed	47.35	20.34	21.75
Impact due to increase in hours worked while working, for those ever employed	82.08	35.26	37.71
Impact due to an increase in hourly wage	64.57	27.74	29.66
Total impact ¹	232.79	100.00	106.94

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: These calculations assume that all components of earnings are independent. This method examined each measure in isolation and calculated how the impact on that measure would change average monthly earnings, if all other components of earnings were held constant. For example, to calculate the impact due solely to the increase in wages, the impact on wages (\$0.41 per hour) was multiplied by the number of hours that the control group worked in each month (39.4 hours per week times 4 weeks per month).

¹Interactions among wages, hours worked, and months worked were not accounted for; therefore, these calculations are not exact. For comparison with the actual impact of \$211.93 per month, the components were expressed as a percentage of the earnings impact. Finally, these percentages were applied to the actual impact to attain the numbers in the rightmost column.

Career Academies Evaluation

Exhibit 4.5-YM

**Differences in Characteristics of the Most Recent Job Held
for Those Who Were Employed in the Last Quarter
for Young Men**

Outcome	Academy Group	Non-Academy Group	Difference
<i>Job duration in months</i>	19.7	18.3	1.4
<i>Month last worked (relative)</i>	46.6	46.4	0.3
<i>Managerial/supervisory position (%)</i>	11.4	8.3	3.1
<i>Occupational group (%)¹</i>			
<i>Management/professional</i>	21.6	18.6	3.0
<i>Food service and personal service</i>	9.2	9.9	-0.6
<i>Sales and related</i>	14.1	12.4	1.8
<i>Office and administrative support</i>	16.6	21.4	-4.8
<i>Construction, production, repair, military</i>	38.3	37.4	0.9
<i>Average monthly earnings² (\$)</i>			
<i>At start of job</i>	1,706.5	1,566.5	139.98 *
<i>At end of job</i>	1,517.5	1,397.2	120.26
<i>At end of job</i>	1,944.3	1,777.1	167.28 *
<i>Difference</i>	428.4	386.1	42.32
<i>Average hours per week</i>			
<i>At start of job</i>	39.5	37.2	2.3 **
<i>At end of job</i>	38.1	36.8	1.4
<i>At end of job</i>	41.4	38.4	3.0 **
<i>Difference</i>	3.2	1.7	1.5 *
<i>Average hourly wage (\$)</i>			
<i>At start of job</i>	10.8	10.6	0.20
<i>At start of job</i>	9.9	9.7	0.26
<i>At end of job</i>	11.8	11.6	0.28
<i>Difference</i>	1.9	2.0	-0.03
<i>Job offers full benefits³ (%)</i>			
<i>Health plan</i>	47.7	39.8	7.9 *
<i>Sick leave</i>	65.3	62.3	3.1
<i>Sick leave</i>	62.0	56.9	5.2
<i>Paid vacation days</i>	62.5	55.2	7.3 *
<i>Retirement plan</i>	50.4	45.2	5.2
<i>Uses/used a computer at this job (%)</i>	65.9	59.1	6.8
<i>Often/always performed physically demanding tasks</i>	41.6	42.8	-1.2
<i>Very satisfied at job (%)</i>	49.3	43.9	5.4
<i>Very likely to be promoted in the next year⁴ (%)</i>	46.2	42.4	3.8
<i>Job is/was directly related to high school (%)</i>	25.0	18.9	6.1 *
Sample size (N=590)	329	261	

(continued)

Exhibit 4.5-YM (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: All measures apply to jobs held in the last three months of the 48-month follow-up period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using ordinary least squares, controlling for background characteristics. Rounding may cause slight discrepancies in calculating differences and sums. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Measures are italicized because they refer only to those students who were employed during the last three months of the follow-up period, and thus do not represent a direct experimental comparison of Academy and non-Academy students.

¹Occupational groups are based on the U.S. Department of Labor's Standard Occupational Classification (SOC) system.

²Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

³Full benefits include health plan, sick leave, paid vacation days, and retirement plan.

⁴Likelihood of being promoted was only asked of those who were employed at the time of the interview (n=532).

Career Academies Evaluation

Exhibit 4.6-YM

**Impacts on Educational Attainment
for Young Men**

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	Impact per Enrollee
Ever enrolled in a Career Academy during high school (%)	87.2	3.8	83.4 ***	--	--
Was enrolled in a Career Academy at the end of scheduled grade 12 (%)	49.4	2.1	47.2 ***	--	--
<u>High school completion status (%)</u>					
Earned high school diploma or GED	92.0	91.9	0.1	0.1	0.1
Earned high school diploma	78.8	80.9	-2.1	-2.6	-2.5
On-time graduate ¹	70.7	68.4	2.3	3.4	2.8
Late graduate	8.2	12.9	-4.7 *	-36.2	-5.6
Earned a GED	13.3	10.9	2.4	22.1	2.9
<u>Post-secondary education enrollment² (%)</u>					
Ever enrolled in post-secondary education	74.9	81.7	-6.8 **	-8.4	-8.2
Highest post-secondary education enrollment					
Four-year college	23.8	24.8	-0.9	-3.8	-1.1
Two-year college	37.2	38.3	-1.1	-3.0	-1.4
Skills training, technical or trade school	13.9	18.8	-4.9	-26.0	-5.8
Months enrolled in post-secondary education	20.2	21.4	-1.3	-5.8	-1.5
<u>Highest credential completed or in progress³ (%)</u>					
Any post-secondary credential	54.2	58.5	-4.2	-7.3	-5.1
Completed	26.0	31.2	-5.2	-16.6	-6.2
In progress	28.3	27.3	1.0	3.5	1.2
Bachelor's degree	14.5	16.8	-2.3	-13.8	-2.8
Completed	1.5	2.6	-1.1	-42.9	-1.3
In progress	13.1	14.3	-1.2	-8.7	-1.5
Associate's degree	19.7	18.2	1.5	8.0	1.8
Completed	6.0	7.4	-1.4	-18.8	-1.7
In progress	13.8	10.8	3.0	27.5	3.6
Skills training certificate or license	20.0	23.4	-3.4	-14.5	-4.1
Completed	18.5	21.2	-2.7	-12.6	-3.2
In progress	1.5	2.2	-0.7	-33.6	-0.9
<u>Years of schooling completed⁴</u>	12.6	12.7	-0.1	-0.6	-0.1
Sample size (N=604)	331	273			

(continued)

Exhibit 4.6-YM (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

¹Students were considered on-time graduates if they graduated in June or earlier of the year they were scheduled to graduate.

²Students must have earned a high school diploma or GED to be considered enrolled in a post-secondary education program.

³A credential was considered "in progress" if the student reported attempting it in a program that he/she was currently attending (within three months of the end of the follow-up period) and expected to complete.

⁴Years of school completed was calculated by assigning 12 years to a completed high school diploma or GED, 14 years to an associate's or 16 years to a completed bachelor's degree. For those who did not complete an associate's or bachelor's degree, years of school completed was calculated as 12 plus the percentage of the degree completed through the end of the follow-up period. For those who did not complete a high school diploma or a GED years of school completed was calculated as a percentage of the 12 years given for a completed high school diploma or a GED.

Career Academies Evaluation

Exhibit 4.7-YM

**Characteristics of the Most Recent Educational Program Attended
for Those Who Ever Enrolled in Any Program
for Young Men**

Outcome	Academy Group	Non-Academy Group	Difference
<i>Duration of attendance in months</i>	20.6	21.3	-0.7
<i>Month of last attendance (relative to scheduled high school graduation)</i>	37.1	37.1	-0.1
<i>Hours per week in class</i>	19.3	18.7	0.6
<i>School considered student full-time (%)</i>	67.2	63.6	3.7
<i>Took basic reading/math class (%)</i>	38.1	32.0	6.0
<i>Credential earned or attempted (%)</i>			
<i>Bachelor's degree</i>	23.6	23.9	-0.3
<i>Associate's degree</i>	35.6	36.2	-0.6
<i>Certificate or license</i>	24.6	25.1	-0.5
<i>High school diploma or GED</i>	5.7	4.3	1.4
<i>No credential</i>	10.5	10.6	-0.1
<i>Financial resources¹ (%)</i>			
<i>Bank or government loans</i>	20.8	20.8	-0.1
<i>Scholarships and grants</i>	31.2	37.4	-6.2
<i>Work-study programs</i>	4.1	1.8	2.3
<i>Personal savings</i>	12.4	7.9	4.6 *
<i>Family</i>	15.0	15.5	-0.6
<i>Employment while attending school</i>	45.8	41.2	4.6
<i>Financial aid from employer</i>	11.5	8.8	2.6
<i>Completed program (%)</i>	29.4	33.2	-3.8
<i>Still enrolled (%)</i>	41.5	38.0	3.4
<i>Left program without completing it (%)</i>	29.2	28.7	0.5
<i>Primary reason for leaving, for those who left² (%)</i>			
<i>School-related reason</i>	11.9	19.7	-7.8
<i>Personal reason</i>	18.7	15.5	3.3
<i>Financial/employment reason</i>	62.0	50.7	11.3
<i>Other reason</i>	7.4	14.1	-6.8
Sample size (N=494)	263	231	

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using ordinary least squares, controlling for background characteristics. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Measures are italicized because they refer only to those students who ever attended a post-secondary education program, and thus do not represent a direct experimental comparison of Academy and non-Academy students.

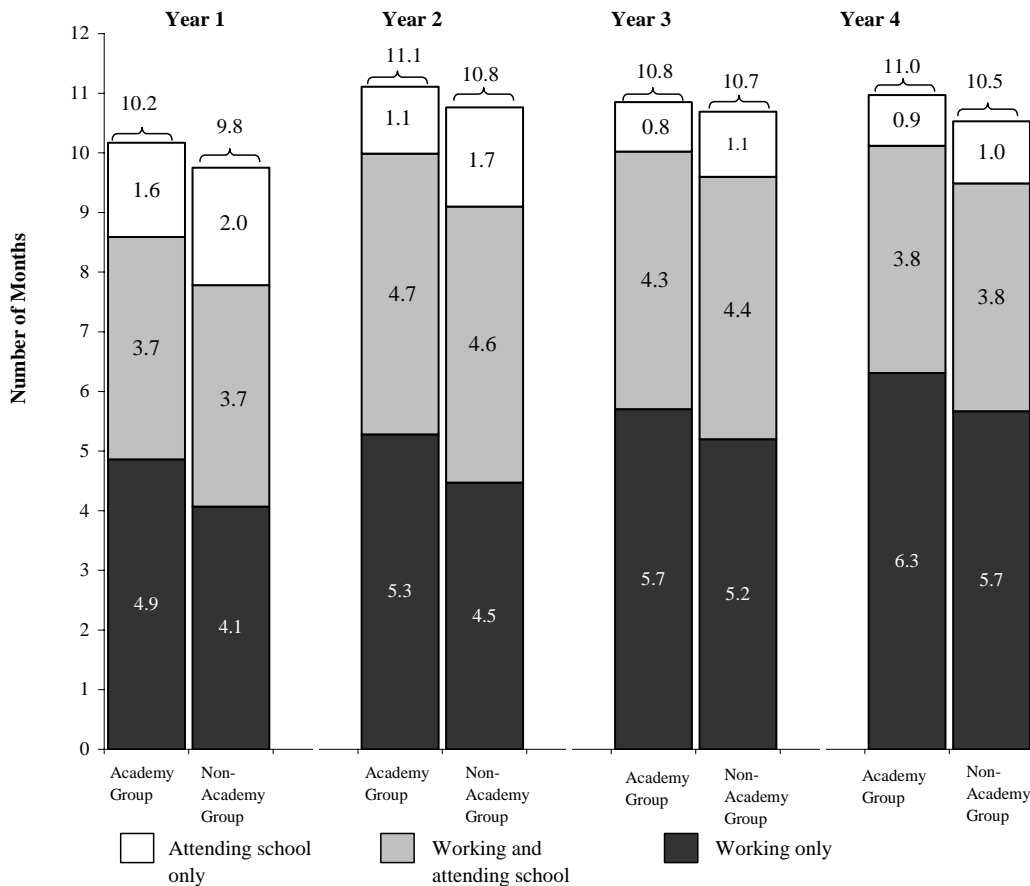
¹Individuals were asked how the education programs they attended were financed. Because the categories they reported are not mutually exclusive, these percentages do not add up to 100 percent.

²Only students who left the program without completing it were asked about their reason for leaving (n=140).

Career Academies Evaluation

Exhibit 4.8-YM

Year-by-Year Impacts on Months Spent Attending School or Working for Young Men



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: All measures reflect the average number of months spent in each status during each year of the 48-month follow-up period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the Academy and non-Academy groups. The difference between total months in any activity in year 4 was significant at .1 or lower.

Career Academies Evaluation

Exhibit 4.9-YM

**Impacts on Family Formation, Public Assistance, and Behaviors
for Young Men**

Outcome (%)	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Is a parent	26.6	27.5	-1.0	-3.5	<i>-1.2</i>
Is a custodial single parent	5.4	6.8	-1.4	-20.4	<i>-1.7</i>
Marital Status					
Married	15.5	13.7	1.8	13.2	<i>2.2</i>
Single	81.6	84.5	-2.9	-3.4	<i>-3.4</i>
Divorced, separated, or widowed	3.0	2.0	1.1	55.1	<i>1.3</i>
Lives with parent(s) or guardian(s)	50.6	57.8	-7.2 *	-12.4	<i>-8.6</i>
Ever gone without health insurance in past year	32.5	36.9	-4.5	-12.1	<i>-5.3</i>
Received TANF or cash assistance in past year	3.3	2.3	0.9	40.2	<i>1.1</i>
Received food stamps in the past year	3.6	3.3	0.3	10.0	<i>0.4</i>
Registered to vote	61.0	63.6	-2.6	-4.1	<i>-3.1</i>
Any recent illegal or drug-related activity ¹	10.7	11.3	-0.6	-4.9	<i>-0.7</i>
Sample size (N=604)	331	273			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses were reported for the end of a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students. See Exhibit 3.6.

¹This measure includes illegal drug use in the past 2 weeks, breaking the law (other than traffic violations) in the past 2 weeks, current gang membership, and any arrests or convictions in the past year.

Career Academies Evaluation

**Exhibit 4.1-YW
Year-by-Year Impacts on Employment and Earnings
for Young Women**

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
<u>Years 1-4</u>					
Ever employed (%)	98.0	97.7	0.2	0.2	0.3
Ever employed full-time ¹ (%)	94.0	92.7	1.3	1.4	1.6
Months employed	35.1	34.8	0.3	1.0	0.4
Months employed full-time	27.3	26.6	0.6	2.3	0.8
Average monthly earnings (\$)	995.28	955.96	39.32	4.1	50.49
Average weekly hours worked	27.1	26.7	0.5	1.7	0.6
Average hourly wage (\$)	8.81	8.55	0.26	3.0	0.33
Total number of jobs held	3.0	3.0	0.0	-0.1	0.0
Average job duration, in months	15.6	15.6	0.0	0.0	0.0
<u>Year 1</u>					
Ever employed (%)	82.6	81.4	1.2	1.4	1.5
Ever employed full-time ¹ (%)	63.6	64.3	-0.7	-1.1	-0.9
Months employed	7.6	7.5	0.1	1.4	0.1
Months employed full-time	5.2	5.4	-0.2	-3.4	-0.2
Average monthly earning (\$)	683.18	680.85	2.33	0.3	2.99
Average weekly hours worked	22.2	22.0	0.2	0.9	0.2
Average hourly wage (\$)	6.34	6.09	0.25	4.1	0.32
<u>Year 2</u>					
Ever employed (%)	88.7	90.5	-1.8	-2.0	-2.3
Ever employed full-time ¹ (%)	74.3	74.9	-0.6	-0.7	-0.7
Months employed	8.7	8.9	-0.1	-1.4	-0.2
Months employed full-time	6.6	6.6	0.0	0.2	0.0
Average monthly earnings (\$)	937.09	904.54	32.55	3.6	41.80
Average weekly hours worked	27.1	26.9	0.2	0.6	0.2
Average hourly wage (\$)	7.44	7.46	-0.02	-0.3	-0.03
<u>Year 3</u>					
Ever employed (%)	91.0	89.7	1.3	1.5	1.7
Ever employed full-time ¹ (%)	80.1	79.4	0.6	0.8	0.8
Months employed	9.2	9.0	0.2	2.7	0.3
Months employed full-time	7.6	7.0	0.6	7.9	0.7
Average monthly earnings (\$)	1,094.42	1,029.74	64.67	6.3	83.05
Average weekly hours worked	29.2	28.2	1.0	3.6	1.3
Average hourly wage (\$)	8.47	8.09	0.38	4.7	0.49
Sample size (N=854)	468	386			

(continued)

Exhibit 4.1-YW (continued)

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
<u>Year 4</u>					
Ever employed (%)	90.6	91.1	-0.4	-0.5	<i>-0.6</i>
Ever employed full-time ¹ (%)	81.5	78.9	2.6	3.3	<i>3.3</i>
Months employed	9.5	9.4	0.1	1.2	<i>0.1</i>
Months employed full-time	7.8	7.6	0.2	2.6	<i>0.3</i>
Average monthly earnings (\$)	1,248.87	1,197.31	51.55	4.3	<i>66.20</i>
Average weekly hours worked	29.9	29.5	0.4	1.5	<i>0.6</i>
Average hourly wage (\$)	9.29	9.03	0.26	2.9	<i>0.33</i>
<u>Last Quarter</u>					
Ever employed (%)	83.4	80.6	2.9	3.6	<i>3.7</i>
Ever employed full-time ¹ (%)	70.6	67.4	3.2	4.7	<i>4.1</i>
Months employed	2.4	2.3	0.0	1.4	<i>0.0</i>
Months employed full-time	2.0	1.9	0.1	2.9	<i>0.1</i>
Average monthly earnings (\$)	1,284.83	1,248.52	36.32	2.9	<i>46.64</i>
Average weekly hours worked	29.8	29.6	0.2	0.8	<i>0.3</i>
Average hourly wage (\$)	9.00	8.46	0.54	6.4	<i>0.69</i>
Sample size (N=854)	468	386			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students. See Exhibit 3.6 for the percentage of the Academy and the non-Academy group ever enrolled in a Career Academy.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

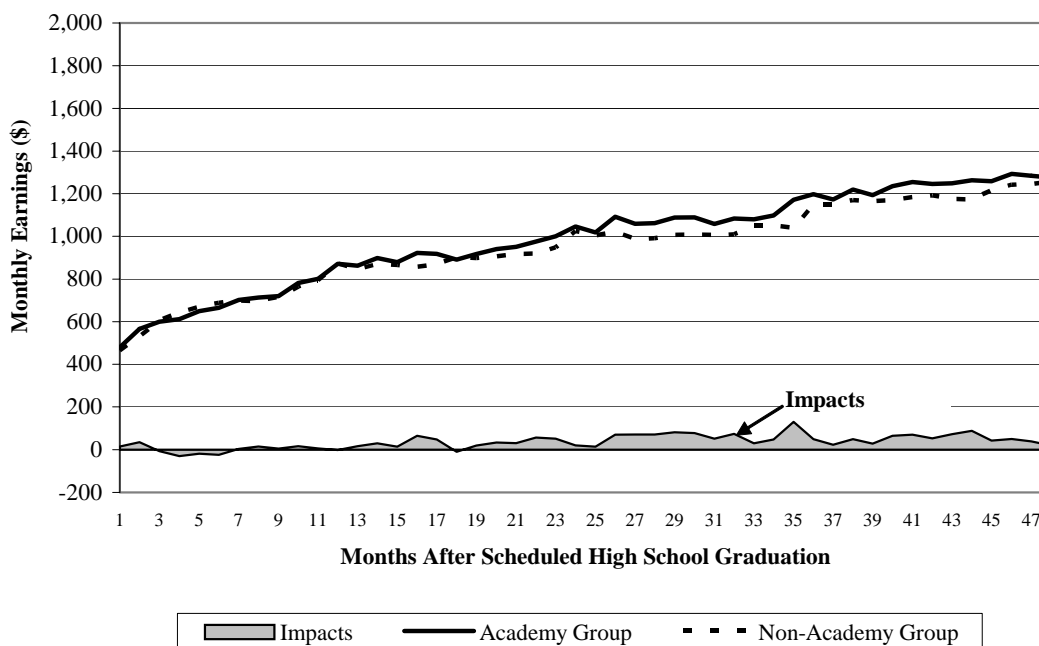
For respondents who were never employed during a given month, earnings, hours, and wages are included in these averages as zeros.

¹Students were considered employed full-time if they reported working 30 or more hours per week.

Career Academies Evaluation

Exhibit 4.2-YW

Month-by-Month Impacts on Total Monthly Earnings for Young Women



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Differences in monthly earnings are significant at the .10 level or lower in 37 out of the 48 months studied.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending wage at each job, and this rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average earnings.

For respondents who were never employed during a given month, earnings are included in these averages as zeros.

Career Academies Evaluation

Exhibit 4.3-YW

Impacts on the Distribution of Earnings, Hours Worked, and Wages for Young Women

Outcome (%)	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Average monthly earnings					
\$0 - \$824	41.7	43.1	-1.4	-3.2	-1.8
\$825 - \$1,237	26.7	31.1	-4.4	-14.3	-5.7
\$1,238 - \$1,442	10.0	8.6	1.5	17.1	1.9
\$1,443 - \$1,648	7.0	6.9	0.2	2.4	0.2
\$1,649 or more	13.6	8.8	4.8 **	54.8	6.2
Average weekly hours worked					
0 - 10	8.9	8.7	0.2	2.2	0.2
10 - 25	31.1	32.3	-1.1	-3.4	-1.4
26 - 35	28.9	31.5	-2.6	-8.3	-3.4
36 - 45	23.2	22.0	1.2	5.5	1.5
46 or more	6.0	3.4	2.6 *	77.8	3.4
Average hourly wage ¹					
\$0 - \$5.15 (MW)	2.6	1.7	0.8	47.4	1.1
\$5.16 - \$7.73 (1.5xMW)	37.2	36.0	1.2	3.3	1.5
\$7.74 - \$9.01 (1.75xMW)	22.7	29.0	-6.3 **	-21.6	-8.0
\$9.02 - \$10.30 (2.0xMW)	14.5	14.8	-0.2	-1.4	-0.3
\$10.31 or more	21.8	17.0	4.8 *	28.1	6.1
Sample size (N=854)	468	386			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using ordinary least squares, controlling for background characteristics. Rounding may cause slight discrepancies in calculating differences and sums. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

For respondents who were never employed during a given month, earnings, hours, and wages are included in these distributions as zeros.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

¹The upper end of the categories of average hourly wage was set as a multiple of the minimum wage (MW), which from 1997-2003 was \$5.15 per hour.

Career Academies Evaluation

Exhibit 4.4-YW

**Components of the Impact on Average Monthly Earnings
for Young Women**

Outcome	Academy Group	Non-Academy Group	Difference
Average monthly earnings (\$)	995.28	955.96	39.32
Ever employed (%)	97.97	97.73	0.24
Months employed, for those ever employed	35.81	35.59	0.23
Average monthly earnings during months employed, for those who were ever employed (\$)	1,309.21	1,294.71	14.49
Average weekly hours during months employed, for those who were ever employed	36.64	36.77	-0.13
Average hourly wage during months employed, for those who were ever employed (\$)	8.95	8.71	0.23

**Proportion of the Impact on Average Monthly Earnings
Due to Each Component**

Components of average monthly earnings impact	\$	(%)	\$
Impact due to an increase in percentage ever employed	2.30	6.09	6.52
Impact due to increase in months worked, for those ever employed	6.20	16.41	17.55
Impact due to increase in hours worked while working, for those ever employed	-4.53	-11.98	-12.81
Impact due to an increase in hourly wage	33.83	89.48	95.69
Total impact¹	37.81	100.00	106.94

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: These calculations assume that all components of earnings are independent. This method examined each measure in isolation and calculated how the impact on that measure would change average monthly earnings, if all other components of earnings were held constant. For example, to calculate the impact due solely to the increase in wages, the impact on wages (\$0.24 per hour) was multiplied by the number of hours that the control group worked in each month (36.8 hours per week times 4 weeks per month).

¹Interactions among wages, hours worked, and months worked, were not accounted for; therefore, these calculations are not exact. For comparison with the actual impact of \$39.32 per month, the components were also expressed as a percentage of the earnings impact. Finally, the percentages were applied to the actual impact to attain the numbers in the rightmost column.

Career Academies Evaluation

Exhibit 4.5-YW

**Differences in Characteristics of the Most Recent Job Held
for Those Who Were Employed in the Last Quarter
for Young Women**

Outcome	Academy Group	Non-Academy Group	Difference
<i>Job duration in months</i>	16.9	17.4	-0.5
<i>Month last worked (relative)</i>	45.9	45.8	0.0
<i>Managerial/supervisory position (%)</i>	6.8	6.4	0.4
<i>Occupational group (%)¹</i>			
<i>Management/professional</i>	27.0	26.7	0.2
<i>Food service and personal service</i>	11.8	10.1	1.7
<i>Sales and related</i>	16.8	15.0	1.8
<i>Office and administrative support</i>	38.8	42.0	-3.2
<i>Construction, production, repair, military</i>	5.1	6.3	-1.2
<i>Average monthly earnings² (\$)</i>	1,415.3	1,380.5	34.85
<i>At start of job</i>	1,300.0	1,268.5	31.46
<i>At end of job</i>	1,551.1	1,521.6	29.50
<i>Difference</i>	252.8	252.7	0.13
<i>Average hours per week</i>	35.3	35.1	0.2
<i>At start of job</i>	34.4	34.1	0.3
<i>At end of job</i>	36.6	36.5	0.1
<i>Difference</i>	2.2	2.4	-0.2
<i>Average hourly wage (\$)</i>	10.1	9.6	0.48
<i>At start of job</i>	9.6	9.1	0.48
<i>At end of job</i>	10.6	10.3	0.28
<i>Difference</i>	1.0	1.2	-0.21
<i>Job offers full benefits³ (%)</i>	40.2	40.4	-0.2
<i>Health plan</i>	55.7	57.6	-1.9
<i>Sick leave</i>	54.7	52.1	2.6
<i>Paid vacation days</i>	56.7	56.6	0.1
<i>Retirement plan</i>	43.3	43.3	0.0
<i>Uses/used a computer at this job (%)</i>	75.5	75.8	-0.3
<i>Often/always performed physically demanding tasks</i>	17.7	20.1	-2.4
<i>Very satisfied at job (%)</i>	47.9	47.9	-0.1
<i>Very likely to be promoted in the next year⁴ (%)</i>	41.9	32.6	9.3 **
<i>Job is/was directly related to high school (%)</i>	29.0	23.8	5.2
Sample size (N=833)	457	376	

(continued)

Exhibit 4.5-YW (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: All measures apply to jobs held in the last three months of the 48-month follow-up period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using ordinary least squares, controlling for background characteristics. Rounding may cause slight discrepancies in calculating differences and sums. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Measures are italicized because they refer only to those students who were employed during the last three months of the follow-up period, and thus do not represent a direct experimental comparison of Academy and non-Academy students.

¹Occupational groups are based on the U.S. Department of Labor's Standard Occupational Classification (SOC) system.

²Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

³Full benefits include health plan, sick leave, paid vacation days, and retirement plan.

⁴Likelihood of being promoted was only asked of those who were employed at the time of the interview (n=692).

Career Academies Evaluation

Exhibit 4.6-YW

**Impacts on Educational Attainment
for Young Women**

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Ever enrolled in a Career Academy during high school (%)	86.1	8.3	77.9 ***	--	--
Was enrolled in a Career Academy at the end of scheduled grade 12 (%)	54.9	5.5	49.4 ***	--	--
<u>High school completion status (%)</u>					
Earned high school diploma or GED	92.3	91.6	0.8	0.9	1.0
Earned high school diploma	83.3	85.5	-2.3	-2.6	-2.9
On-time graduate ¹	74.6	75.3	-0.7	-0.9	-0.9
Late graduate	8.5	10.1	-1.6	-15.9	-2.1
Earned a GED	9.2	6.2	3.1	50.1	4.0
<u>Post-secondary education enrollment² (%)</u>					
Ever enrolled in post-secondary education	81.8	79.2	2.6	3.3	3.4
Highest post-secondary education enrollment					
Four-year college	27.1	25.0	2.1	8.3	2.7
Two-year college	38.4	38.1	0.3	0.8	0.4
Skills training, technical or trade school	16.2	15.9	0.3	1.7	0.3
Months enrolled in post-secondary education	22.1	21.9	0.1	0.6	0.2
<u>Highest credential completed or in progress³ (%)</u>					
Any post-secondary credential	56.1	55.4	0.7	1.3	0.9
Completed	26.0	26.0	0.1	0.2	0.1
In progress	30.3	29.6	0.7	2.2	0.8
Bachelor's degree	17.8	17.7	0.1	0.4	0.1
Completed	2.8	2.9	-0.2	-6.3	-0.2
In progress	15.0	14.7	0.3	2.3	0.4
Associate's degree	17.8	16.4	1.5	8.9	1.9
Completed	5.5	4.0	1.5	38.8	2.0
In progress	12.2	12.2	0.0	-0.1	0.0
Skills training certificate or license	20.6	21.4	-0.8	-3.8	-1.1
Completed	17.7	18.9	-1.2	-6.4	-1.5
In progress	3.1	2.7	0.4	14.1	0.5
<u>Years of schooling completed⁴</u>	12.7	12.7	0.0	0.1	0.0
Sample size (N=854)	468	386			

(continued)

Exhibit 4.6-YW (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

¹Students were considered on-time graduates if they graduated in June or earlier of the year they were scheduled to graduate.

²Students must have earned a high school diploma or GED to be considered enrolled in a post-secondary education program.

³A credential was considered "in progress" if the student reported attempting it in a program that he/she was currently attending (within three months of the end of the follow-up period) and expected to complete.

⁴Years of school completed was calculated by assigning 12 years to a completed high school diploma or GED, 14 years to an associate's or 16 years to a completed bachelor's degree. For those who did not complete an associate's or a bachelor's degree, years of school completed was calculated as 12 plus the percentage of the degree completed through the end of the follow-up period. For those who did not complete a high school diploma or a GED, years of school completed was calculated as a percentage of the 12 years given for a completed high school diploma or a GED.

Career Academies Evaluation

Exhibit 4.7-YW

**Characteristics of the Most Recent Educational Program Attended
for Those Who Ever Enrolled in Any Program for Young Women**

Outcome	Academy Group	Non-Academy Group	Difference
<i>Duration of attendance in months</i>	19.8	21.7	-1.8
<i>Month of last attendance (relative to scheduled high school graduation)</i>	37.3	38.3	-0.9
<i>Hours per week in class</i>	19.0	18.2	0.9
<i>School considered student full-time (%)</i>	71.5	68.1	3.4
<i>Took basic reading/math class (%)</i>	35.6	33.3	2.2
<i>Credential earned or attempted (%)</i>			
<i>Bachelor's degree</i>	24.8	26.8	-2.1
<i>Associate's degree</i>	37.1	35.7	1.4
<i>Certificate or license</i>	24.1	25.6	-1.6
<i>High school diploma or GED</i>	3.8	3.9	-0.1
<i>No credential</i>	10.6	8.2	2.4
<i>Financial resources¹ (%)</i>			
<i>Bank or government loans</i>	22.0	23.5	-1.5
<i>Scholarships and grants</i>	50.5	47.4	3.1
<i>Work-study programs</i>	1.9	3.3	-1.4
<i>Personal savings</i>	10.7	12.2	-1.5
<i>Family</i>	12.7	13.9	-1.1
<i>Employment while attending school</i>	39.8	37.7	2.1
<i>Financial aid from employer</i>	4.7	5.8	-1.2
<i>Completed program (%)</i>	26.7	28.1	-1.4
<i>Still enrolled (%)</i>	41.9	41.1	0.8
<i>Left program without completing it (%)</i>	31.5	31.0	0.5
<i>Primary reason for leaving, for those who left² (%)</i>			
<i>School-related reason</i>	13.8	5.8	8.0 *
<i>Personal reason</i>	37.5	35.3	2.1
<i>Financial/employment reason</i>	38.5	47.3	-8.8
<i>Other reason</i>	10.0	11.6	-1.7
Sample size (N=1,208)	659	549	

(continued)

Exhibit 4.7-YW (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using ordinary least squares, controlling for background characteristics. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

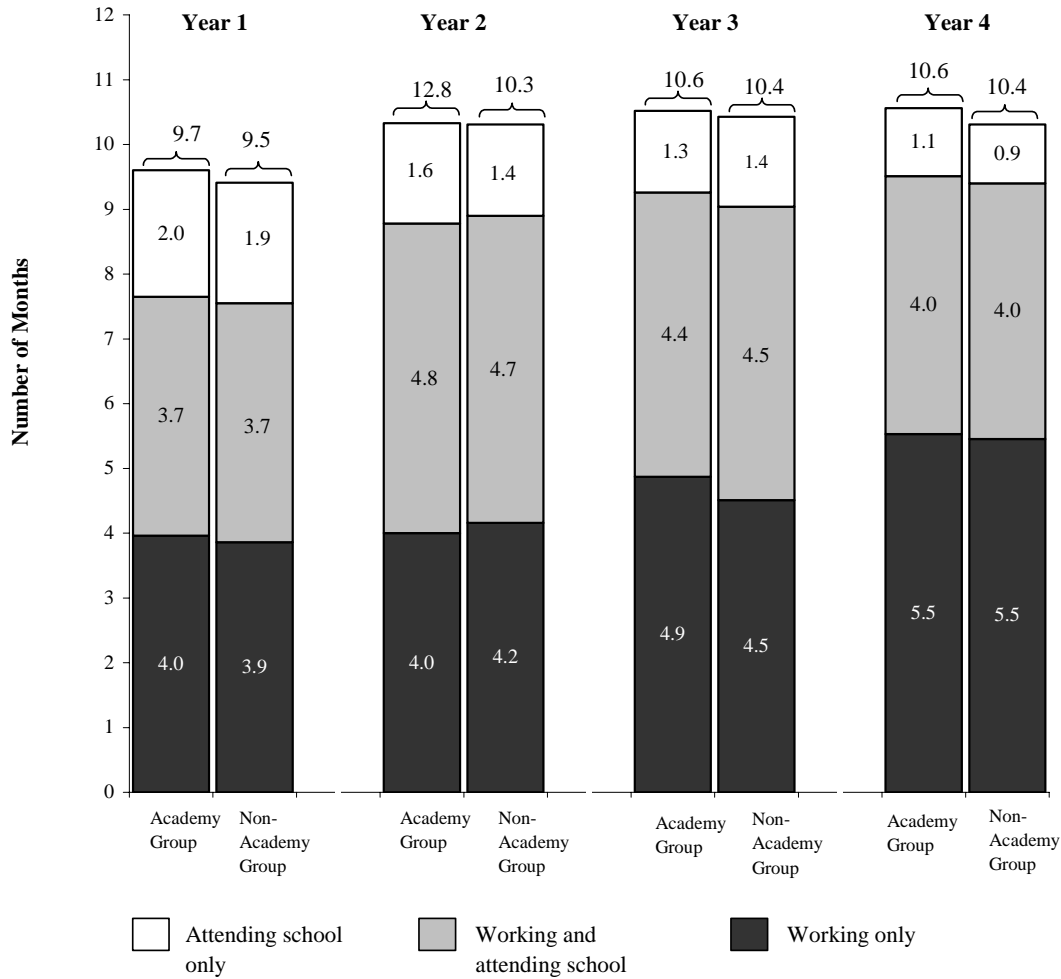
Measures are italicized because they refer only to those students who ever attended a post-secondary education program, and thus do not represent a direct experimental comparison of Academy and non-Academy students.

¹Individuals were asked how the education programs they attended were financed. Because the categories they reported are not mutually exclusive, these percentages do not add up to 100 percent.

²Only students who left the program without completing it were asked about their reason for leaving (n=224).

Career Academies Evaluation

Exhibit 4.8-YW
Year-by-Year Impacts on Months Spent Attending School or Working
for Young Women



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: All measures reflect the average number of months spent in each status during each year of the 48-month follow-up period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the Academy and non-Academy groups. The difference between total months in any activity in year 4 was significant at .1 or lower.

Career Academies Evaluation

Exhibit 4.9-YW

**Impacts on Family Formation, Public Assistance, and Behaviors
for Young Women**

Outcome (%)	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Is a parent	44.3	40.3	4.1	10.1	5.2
Is a custodial single parent	28.4	24.9	3.5	13.9	4.4
Marital Status					
Married	23.0	22.9	0.1	0.3	<i>0.1</i>
Single	73.6	74.4	-0.7	-1.0	<i>-0.9</i>
Divorced, separated, or widowed	3.2	2.6	0.6	23.5	<i>0.8</i>
Lives with parent(s) or guardian(s)	46.4	48.3	-2.0	-4.0	-2.5
Ever gone without health insurance in past year	23.2	27.1	-3.9	-14.5	-5.0
Received TANF or cash assistance in past year	10.0	8.4	1.6	19.1	2.1
Received food stamps in the past year	14.1	11.4	2.8	24.1	3.5
Registered to vote	70.2	65.8	4.4	6.6	5.6
Any recent illegal or drug-related activity ¹	3.6	2.5	1.1	44.0	<i>1.4</i>
Sample size (N=854)	468	386			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses were reported for the end of a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students. See Exhibit 3.6.

¹This measure includes illegal drug use in the past 2 weeks, breaking the law (other than traffic violations) in the past 2 weeks, current gang membership, and any arrests or convictions in the past year.

Career Academies Evaluation

Exhibit 4.1-YWN

Year-by-Year Impacts on Employment and Earnings for Young Women Without Children

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
<u>Years 1-4</u>					
Ever employed (%)	98.3	99.3	-1.1	-1.1	-1.4
Ever employed full-time ¹ (%)	92.4	93.0	-0.6	-0.6	-0.7
Months employed	36.6	37.4	-0.8	-2.1	-1.0
Months employed full-time	26.5	26.5	0.1	0.2	0.1
Average monthly earnings (\$)	1,021.69	1,025.03	-3.35	-0.3	-4.28
Average weekly hours worked	27.2	27.9	-0.7	-2.4	-0.9
Average hourly wage (\$)	9.13	8.94	0.20	2.2	0.26
Total number of jobs held	3.0	3.1	-0.2	-4.9	-0.2
Average job duration, in months	16.8	17.0	-0.2	-0.9	-0.2
<u>Year 1</u>					
Ever employed (%)	83.2	86.3	-3.1	-3.6	-4.0
Ever employed full-time ¹ (%)	57.6	63.9	-6.3	-9.9	-8.1
Months employed	7.7	8.1	-0.4	-5.0	-0.5
Months employed full-time	4.6	5.4	-0.8	-14.0	-1.0
Average monthly earnings (\$)	674.13	713.87	-39.74	-5.6	-50.77
Average weekly hours worked	21.0	22.7	-1.6	-7.2	-2.1
Average hourly wage (\$)	6.59	6.48	0.11	1.8	0.14
<u>Year 2</u>					
Ever employed (%)	89.6	94.0	-4.4 *	-4.7	-5.7
Ever employed full-time ¹ (%)	68.7	74.6	-5.9	-7.9	-7.6
Months employed	8.9	9.6	-0.7 *	-7.2	-0.9
Months employed full-time	6.1	6.6	-0.4	-6.7	-0.6
Average monthly earnings (\$)	924.34	968.16	-43.82	-4.5	-55.99
Average weekly hours worked	26.5	28.2	-1.7	-6.0	-2.2
Average hourly wage (\$)	7.63	7.90	-0.28	-3.5	-0.36
<u>Year 3</u>					
Ever employed (%)	94.1	93.2	0.8	0.9	1.1
Ever employed full-time ¹ (%)	81.2	78.7	2.5	3.2	3.2
Months employed	9.8	9.7	0.2	1.6	0.2
Months employed full-time	7.6	7.0	0.6	9.2	0.8
Average monthly earnings (\$)	1,127.82	1,119.14	8.69	0.8	11.10
Average weekly hours worked	29.9	29.9	0.0	0.1	0.0
Average hourly wage (\$)	8.79	8.55	0.24	2.8	0.31
Sample size (N=490)	256	234			

(continued)

Exhibit 4.1-YWN (continued)

Outcome	<i>Academy Group</i>	<i>Non-Academy Group</i>	<i>Impact</i>	<i>Percent Change</i>	<i>Impact per Enrollee</i>
<u>Year 4</u>					
Ever employed (%)	92.4	94.2	-1.8	-1.9	-2.3
Ever employed full-time ¹ (%)	81.7	77.5	4.3	5.5	5.4
Months employed	10.2	10.0	0.2	1.6	0.2
Months employed full-time	8.1	7.5	0.6	7.6	0.7
Average monthly earnings (\$)	1,342.98	1,289.66	53.32	4.1	68.12
Average weekly hours worked	31.5	30.9	0.6	1.8	0.7
Average hourly wage (\$)	9.88	9.77	0.11	1.2	0.14
<u>Last Quarter</u>					
Ever employed (%)	87.7	86.8	0.9	1.1	1.2
Ever employed full-time ¹ (%)	72.6	68.4	4.2	6.1	5.3
Months employed	2.5	2.5	0.0	0.3	0.0
Months employed full-time	2.0	1.9	0.1	5.7	0.1
Average monthly earnings (\$)	1,386.57	1,370.04	16.53	1.2	21.12
Average weekly hours worked	31.4	31.2	0.2	0.6	0.3
Average hourly wage (\$)	9.77	9.42	0.34	3.6	0.43
Sample size (N=490)	256	234			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. The numbers in this table are italicized because they are nonexperimental.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

For respondents who were never employed during a given month, earnings, hours, and wages are included in these averages as zeros.

¹Students were considered employed full-time if they reported working 30 or more hours per week.

Career Academies Evaluation

Exhibit 4.2-YWN

**Impacts on Educational Attainment
for Young Women Without Children**

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	Impact per Enrollee
Ever enrolled in a Career Academy during high school (%)	88.2	9.9	78.3 ***	--	--
Was enrolled in a Career Academy at the end of scheduled grade 12 (%)	66.7	7.2	59.5 ***	--	--
<u>High school completion status (%)</u>					
Earned high school diploma or GED	98.6	97.3	1.2	1.3	1.6
Earned high school diploma	91.9	94.5	-2.6	-2.8	-3.3
On-time graduate ¹	84.8	85.6	-0.9	-1.0	-1.1
Late graduate	7.2	8.8	-1.6	-18.4	-2.1
Earned a GED	6.6	2.6	4.0 **	152.5	5.1
<u>Post-secondary education enrollment² (%)</u>					
Ever enrolled in post-secondary education	93.0	89.2	3.7	4.2	4.8
Highest post-secondary education enrollment					
Four-year college	37.6	34.1	3.5	10.3	4.5
Two-year college	45.3	44.4	0.9	2.0	1.1
Skills training, technical or trade school	9.8	10.3	-0.5	-5.2	-0.7
Months enrolled in post-secondary education	29.7	28.4	1.3	4.5	1.6
<u>Highest credential completed or in progress³ (%)</u>					
Any post-secondary credential	68.0	63.2	4.8	7.5	6.1
Completed	26.6	25.2	1.4	5.7	1.8
In progress	41.4	38.1	3.3	8.7	4.2
Bachelor's degree	26.8	25.3	1.5	6.0	1.9
Completed	3.7	4.2	-0.5	-11.7	-0.6
In progress	23.2	21.1	2.2	10.3	2.8
Associate's degree	22.6	20.9	1.7	8.1	2.2
Completed	7.8	5.1	2.7	52.2	3.4
In progress	14.7	15.6	-0.9	-5.6	-1.1
Skills training certificate or license	18.2	16.9	1.3	7.6	1.6
Completed	14.8	15.4	-0.6	-3.7	-0.7
In progress	3.3	1.4	1.9	136.0	2.4
<u>Years of schooling completed⁴</u>	13.1	13.1	0.1	0.5	0.1
Sample size (N=490)	256	234			

(continued)

Exhibit 4.2-YWN (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. These numbers in this table are italicized because they are nonexperimental.

¹Students were considered on-time graduates if they graduated in June or earlier of the year they were scheduled to graduate.

²Students must have earned a high school diploma or GED to be considered enrolled in a post-secondary education program.

³A credential was considered "in progress" if the student reported attempting it in a program that he/she was currently attending (within three months of the end of the follow-up period) and expected to complete.

⁴Years of school completed was calculated by assigning 12 years to a completed high school diploma or GED, 14 years to an associate's or 16 years to a completed bachelor's degree. For those who did not complete an associate's or bachelor's degree, years of school completed was calculated as 12 plus the percentage of the degree completed through the end of the follow-up period. For those who did not complete a high school diploma or a GED years of school completed was calculated as a percentage of the 12 years given for a completed high school diploma or a GED.

Career Academies Evaluation

Exhibit 4.1-YWC

Year-by-Year Impacts on Employment and Earnings for Young Women With Children

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
<u>Years 1-4</u>					
Ever employed (%)	97.2	95.5	1.7	1.8	2.2
Ever employed full-time ¹ (%)	95.9	92.6	3.3	3.5	4.3
Months employed	33.2	30.9	2.2	7.3	2.9
Months employed full-time	28.1	26.7	1.3	5.0	1.7
Average monthly earnings (\$)	945.04	838.13	106.91	12.8	138.74
Average weekly hours worked	27.0	24.7	2.3	9.5	3.0
Average hourly wage (\$)	8.35	8.07	0.28	3.5	0.36
Total number of jobs held	3.1	2.9	0.3	8.8	0.3
Average job duration, in months	13.9	13.7	0.2	1.5	0.3
<u>Year 1</u>					
Ever employed (%)	81.2	74.8	6.4	8.5	8.3
Ever employed full-time ¹ (%)	70.4	65.5	4.9	7.5	6.4
Months employed	7.5	6.7	0.7	10.5	0.9
Months employed full-time	5.9	5.6	0.3	5.1	0.4
Average monthly earnings (\$)	682.35	644.08	38.27	5.9	49.66
Average weekly hours worked	23.3	21.1	2.2	10.5	2.9
Average hourly wage (\$)	5.85	5.50	0.35	6.4	0.45
<u>Year 2</u>					
Ever employed (%)	87.4	86.2	1.2	1.4	1.5
Ever employed full-time ¹ (%)	80.9	75.5	5.5	7.2	7.1
Months employed	8.4	7.8	0.6	8.3	0.8
Months employed full-time	7.0	6.6	0.5	6.9	0.6
Average monthly earnings (\$)	930.59	801.85	128.74	16.1	167.06
Average weekly hours worked	27.8	25.1	2.7	10.6	3.5
Average hourly wage (\$)	7.11	6.96	0.15	2.2	0.19
<u>Year 3</u>					
Ever employed (%)	86.7	84.4	2.2	2.7	2.9
Ever employed full-time ¹ (%)	79.3	79.4	-0.1	-0.2	-0.2
Months employed	8.5	8.0	0.5	6.7	0.7
Months employed full-time	7.6	6.9	0.6	9.1	0.8
Average monthly earnings (\$)	1,052.56	880.83	171.72 **	19.5	222.84
Average weekly hours worked	28.7	25.6	3.1	12.1	4.0
Average hourly wage (\$)	7.92	7.43	0.49	6.5	0.64
Sample size (N=363)	211	152			

(continued)

Exhibit 4.1-YWC (continued)

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	Impact per Enrollee
<u>Year 4</u>					
Ever employed (%)	88.2	85.8	2.3	2.7	3.0
Ever employed full-time ¹ (%)	81.0	79.7	1.3	1.7	1.7
Months employed	8.7	8.4	0.4	4.1	0.5
Months employed full-time	7.5	7.6	-0.1	-1.2	-0.1
Average monthly earnings (\$)	1,126.13	1,027.99	98.15	9.6	127.37
Average weekly hours worked	28.3	26.8	1.4	5.3	1.9
Average hourly wage (\$)	8.49	7.88	0.61	7.8	0.79
<u>Last Quarter</u>					
Ever employed (%)	78.2	71.1	7.1	10.0	9.2
Ever employed full-time ¹ (%)	68.4	65.6	2.8	4.3	3.7
Months employed	2.2	2.1	0.1	5.9	0.2
Months employed full-time	1.9	1.9	0.0	0.7	0.0
Average monthly earnings (\$)	1,153.30	1,045.57	107.73	10.3	139.80
Average weekly hours worked	27.9	26.9	1.1	3.9	1.4
Average hourly wage (\$)	7.94	6.88	1.06 *	15.4	1.38
Sample size (N=363)	211	152			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. The numbers in this table are italicized because they are nonexperimental.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

For respondents who were never employed during a given month, earnings, hours, and wages are included in these averages as zeros.

¹Students were considered employed full-time if they reported working 30 or more hours per week.

Career Academies Evaluation
Exhibit 4.2-YWC
Impacts on Educational Attainment
for Young Women With Children

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Ever enrolled in a Career Academy during high school (%)	83.3	6.3	77.1 ***	--	--
Was enrolled in a Career Academy at the end of scheduled grade 12 (%)	41.3	4.2	37.1 ***	--	--
<u>High school completion status (%)</u>					
Earned high school diploma or GED	84.7	83.3	1.5	1.7	1.9
Earned high school diploma	75.2	72.0	3.2	4.5	4.2
On-time graduate ¹	63.5	59.5	4.0	6.8	5.2
Late graduate	10.4	11.4	-1.0	-8.8	-1.3
Earned a GED	10.2	11.8	-1.6	-13.8	-2.1
<u>Post-secondary education enrollment² (%)</u>					
Ever enrolled in post-secondary education	68.0	64.5	3.4	5.3	4.4
Highest post-secondary education enrollment					
Four-year college	13.3	10.5	2.8	27.1	3.7
Two-year college	30.7	29.6	1.1	3.7	1.4
Skills training, technical or trade school	24.1	24.7	-0.6	-2.4	-0.8
Months enrolled in post-secondary education	11.9	12.0	0.0	-0.2	0.0
<u>Highest credential completed or in progress³ (%)</u>					
Any post-secondary credential	42.3	46.1	-3.8	-8.3	-4.9
Completed	25.7	27.0	-1.3	-4.8	-1.7
In progress	16.0	18.6	-2.6	-14.2	-3.4
Bachelor's degree	6.4	5.6	0.9	15.3	1.1
Completed	1.5	0.7	0.8	105.6	1.0
In progress	5.0	4.9	0.1	2.7	0.2
Associate's degree	12.8	13.0	-0.2	-1.5	-0.2
Completed	2.7	2.5	0.1	4.9	0.2
In progress	9.8	10.3	-0.4	-4.0	-0.5
Skills training certificate or license	23.9	28.6	-4.7	-16.5	-6.1
Completed	21.6	23.7	-2.1	-8.8	-2.7
In progress	2.5	5.1	-2.5	-50.1	-3.3
<u>Years of schooling completed⁴</u>	12.1	12.1	0.0	0.3	0.0
Sample size (N=363)	211	152			

(continued)

Exhibit 4.2-YWC (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. The numbers in this table are italicized because they are nonexperimental.

¹Students were considered on-time graduates if they graduated in June or earlier of the year they were scheduled to graduate.

²Students must have earned a high school diploma or GED to be considered enrolled in a post-secondary education program.

³A credential was considered "in progress" if the student reported attempting it in a program that he/she was currently attending (within three months of the end of the follow-up period) and expected to complete.

⁴Years of school completed was calculated by assigning 12 years to a completed high school diploma or GED, 14 years to an associate's or 16 years to a completed bachelor's degree. For those who did not complete an associate's or bachelor's degree, years of school completed was calculated as 12 plus the percentage of the degree completed through the end of the follow-up period. For those who did not complete a high school diploma or a GED years of school completed was calculated as a percentage of the 12 years given for a completed high school diploma or a GED.

Unit 5

Impacts for Risk Subgroups

Career Academies Evaluation

Exhibit 5.1-HR

**Year-by-Year Impacts on Employment and Earnings
for the High-Risk Subgroup**

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	Impact per Enrollee
<u>Years 1-4</u>					
Ever employed (%)	98.6	96.7	1.9	1.9	2.3
Ever employed full-time ¹ (%)	96.1	95.5	0.6	0.7	0.8
Months employed	35.6	33.4	2.2	6.6	2.7
Months employed full-time	30.7	27.8	2.9 *	10.3	3.5
Average monthly earnings (\$)	1,204.27	1,036.20	168.07 *	16.2	204.81
Average weekly hours worked	30.1	27.9	2.2	8.0	2.7
Average hourly wage (\$)	9.28	8.74	0.53	6.1	0.65
Total number of jobs held	3.0	2.9	0.2	5.9	0.2
Average job duration, in months	15.9	15.6	0.4	2.2	0.4
<u>Year 1</u>					
Ever employed (%)	82.0	81.9	0.1	0.1	0.1
Ever employed full-time ¹ (%)	69.7	67.2	2.5	3.7	3.0
Months employed	7.8	7.2	0.7	9.3	0.8
Months employed full-time	6.3	5.5	0.8	14.9	1.0
Average monthly earnings (\$)	847.78	720.40	127.38	17.7	155.23
Average weekly hours worked	25.2	22.6	2.7	11.8	3.2
Average hourly wage (\$)	6.58	6.44	0.14	2.1	0.17
<u>Year 2</u>					
Ever employed (%)	88.1	85.5	2.6	3.0	3.2
Ever employed full-time ¹ (%)	78.3	74.1	4.2	5.7	5.1
Months employed	8.9	8.7	0.3	3.4	0.4
Months employed full-time	7.6	6.9	0.7	10.3	0.9
Average monthly earnings (\$)	1,137.85	996.22	141.63	14.2	172.59
Average weekly hours worked	30.7	28.5	2.2	7.7	2.7
Average hourly wage (\$)	7.91	7.85	0.05	0.7	0.06
<u>Year 3</u>					
Ever employed (%)	92.8	87.0	5.8 *	6.7	7.1
Ever employed full-time ¹ (%)	84.3	80.7	3.6	4.5	4.4
Months employed	9.3	8.8	0.5	5.9	0.6
Months employed full-time	8.1	7.6	0.5	6.8	0.6
Average monthly earnings (\$)	1,321.71	1,173.74	147.97	12.6	180.32
Average weekly hours worked	31.7	30.1	1.6	5.3	1.9
Average hourly wage (\$)	9.23	8.33	0.90 *	10.9	1.10
Sample size (N=360)	206	154			

(continued)

Exhibit 5.1-HR (continued)

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
<u>Year 4</u>					
Ever employed (%)	91.2	84.6	6.6 *	7.8	<i>8.1</i>
Ever employed full-time ¹ (%)	85.1	79.2	5.9	7.4	<i>7.2</i>
Months employed	9.5	8.8	0.7	8.1	<i>0.9</i>
Months employed full-time	8.6	7.8	0.8	10.0	<i>1.0</i>
Average monthly earnings (\$)	1,515.32	1,271.53	243.79 *	19.2	<i>297.09</i>
Average weekly hours worked	32.9	30.7	2.2	7.2	<i>2.7</i>
Average hourly wage (\$)	10.12	8.82	1.30 *	14.8	<i>1.58</i>
<u>Last Quarter</u>					
Ever employed (%)	85.5	76.7	8.8 *	11.5	<i>10.7</i>
Ever employed full-time ¹ (%)	77.4	69.1	8.3 *	12.0	<i>10.1</i>
Months employed	2.4	2.2	0.2	9.0	<i>0.2</i>
Months employed full-time	2.2	2.0	0.2	12.1	<i>0.3</i>
Average monthly earnings (\$)	1,584.88	1,347.85	237.03 *	17.6	<i>288.85</i>
Average weekly hours worked	33.0	30.4	2.6	8.6	<i>3.2</i>
Average hourly wage (\$)	9.99	8.74	1.25	14.3	<i>1.52</i>
Sample size (N=360)	206	154			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. High-risk students (approximately 25 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with the highest likelihood of dropping out.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students. See Exhibit 3.6 for the percentage of the Academy and the non-Academy group ever enrolled in a Career Academy.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

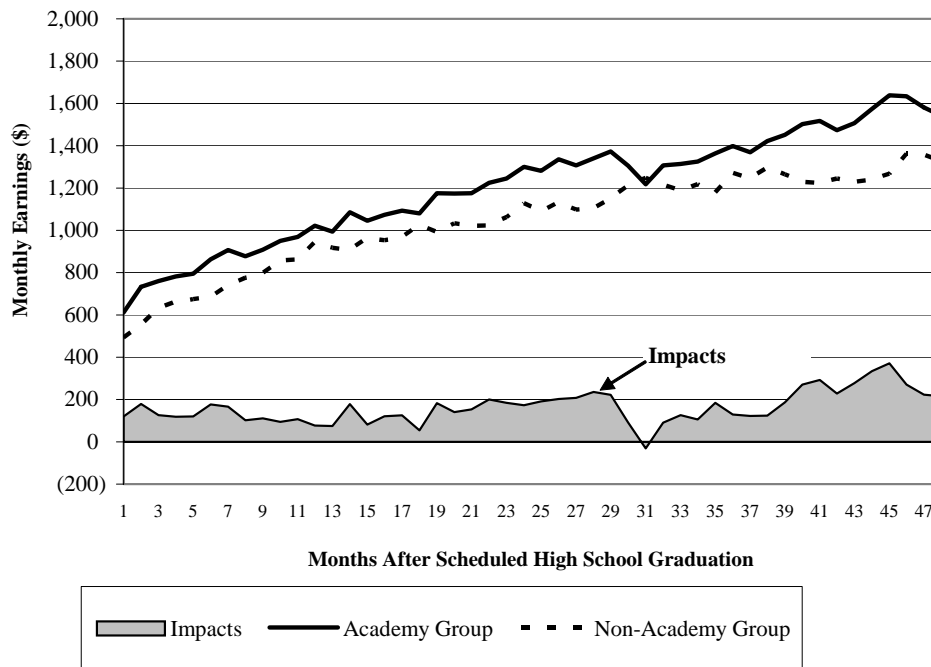
For respondents who were never employed during a given month, earnings, hours, and wages are included in these averages as zeros.

¹Students were considered employed full-time if they reported working 30 or more hours per week.

Career Academies Evaluation

Exhibit 5.2-HR

**Month-by-Month Impacts on Average Earnings
for the High-Risk Subgroup**



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Differences in monthly earnings are significant at the .10 level or lower in 37 out of the 48 months studied.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. High-risk students (approximately 25 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with the highest likelihood of dropping out.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending wage at each job, and this rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average earnings.

For respondents who were never employed during a given month, earnings are included in these averages as zeros.

Career Academies Evaluation

Exhibit 5.3-HR

**Impacts on Educational Attainment
for the High-Risk Subgroup**

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	Impact per Enrollee
Ever enrolled in a Career Academy during high school (%)	83.5	1.4	82.1 ***	--	--
Was enrolled in a Career Academy at the end of scheduled grade 12 (%)	34.6	1.3	33.2 ***	--	--
<u>High school completion status (%)</u>					
Earned high school diploma or GED	82.7	83.2	-0.5	-0.6	-0.6
Earned high school diploma	64.8	64.5	0.3	0.4	0.3
On-time graduate ¹	52.9	49.0	3.9	7.9	4.7
Late graduate	11.6	15.4	-3.8	-24.5	-4.6
Earned a GED	17.7	18.5	-0.8	-4.2	-0.9
<u>Post-secondary education enrollment² (%)</u>					
Ever enrolled in post-secondary education	60.2	71.5	-11.2 **	-15.7	-13.7
Highest post-secondary education enrollment					
Four-year college	9.3	8.9	0.4	4.3	0.5
Two-year college	29.7	43.3	-13.6 **	-31.5	-16.6
Skills training, technical or trade school	21.5	19.3	2.2	11.3	2.7
Months enrolled in post-secondary education	10.8	14.7	-3.9 **	-26.5	-4.8
<u>Highest credential completed or in progress³ (%)</u>					
Any post-secondary credential	39.8	48.9	-9.1	-18.6	-11.1
Completed	24.8	27.9	-3.1	-11.2	-3.8
In progress	15.0	20.9	-5.9	-28.1	-7.1
Bachelor's degree	3.4	6.5	-3.0	-47.0	-3.7
Completed	0.3	0.9	-0.5	-60.7	-0.6
In progress	3.1	5.6	-2.5	-45.0	-3.1
Associate's degree	13.9	17.7	-3.8	-21.4	-4.6
Completed	3.7	6.7	-3.0	-44.1	-3.6
In progress	10.0	11.0	-1.0	-9.2	-1.2
Skills training certificate or license	22.4	24.7	-2.3	-9.4	-2.8
Completed	20.7	20.4	0.3	1.6	0.4
In progress	1.7	4.3	-2.7	-61.8	-3.3
<u>Years of schooling completed⁴</u>	12.0	12.2	-0.2	-1.4	-0.2
Sample size (N=360)	206	154			

(continued)

Exhibit 5.3-HR (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. High-risk students (approximately 25 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with the highest likelihood of dropping out.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

¹Students were considered on-time graduates if they graduated in June or earlier of the year they were scheduled to graduate.

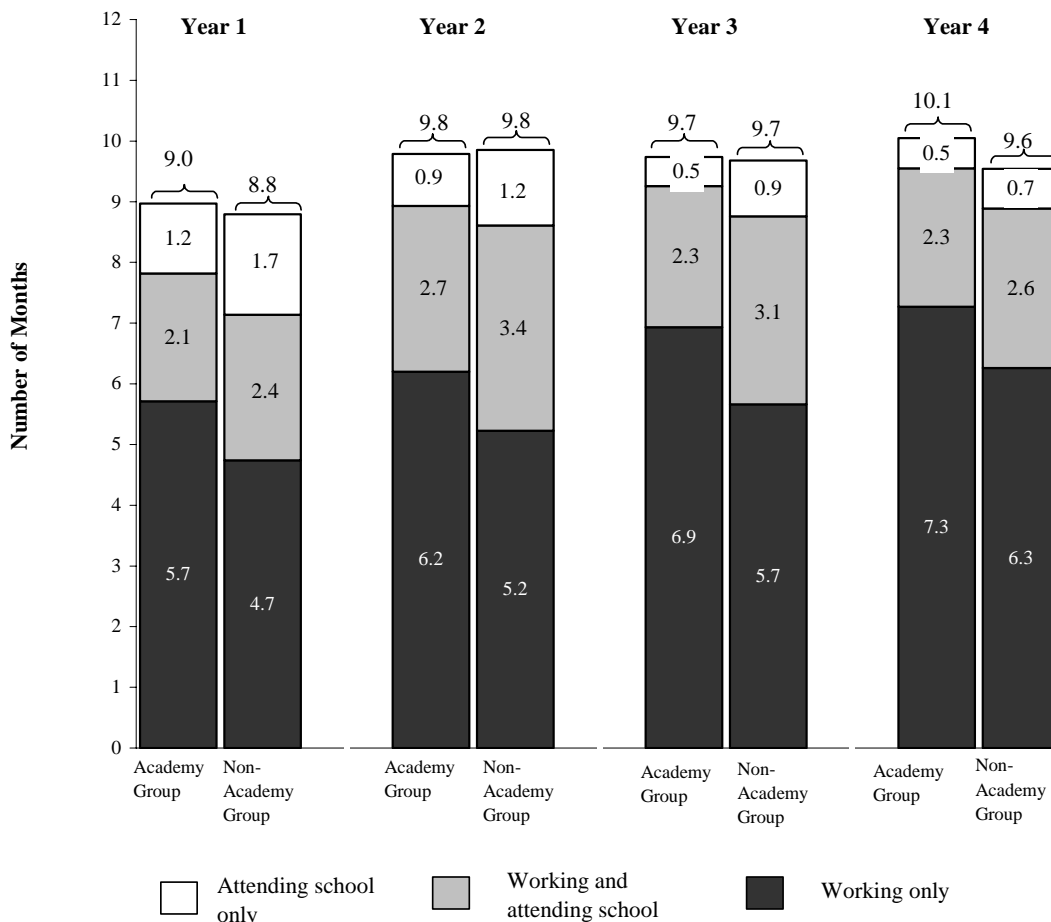
²Students must have earned a high school diploma or GED to be considered enrolled in a post-secondary education program.

⁴Years of school completed was calculated by assigning 12 years to a completed high school diploma or GED, 14 years to an associate's or 16 years to a completed bachelor's degree. For those who did not complete an associate's or a bachelor's degree, years of school completed was calculated as 12 plus the percentage of the degree completed through the end of the follow-up period. For those who did not complete a high school diploma or a GED, years of school completed was calculated as a percentage of the 12 years given for a completed high school diploma or a GED.

Career Academies Evaluation

Exhibit 5.4-HR

Year-by-Year Impacts on Months Spent Attending School or Working for the High-Risk Subgroup



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: All measures reflect the average number of months spent in each status during each year of the 48-month follow-up period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the Academy and non-Academy groups. The difference between total months in any activity in year 4 was significant at .1 or lower.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. High-risk students (approximately 25 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with the highest likelihood of dropping out.

Career Academies Evaluation

Exhibit 5.5-HR

**Impacts on Family Formation, Public Assistance, and Behaviors
for the High-Risk Subgroup**

Outcome (%)	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Is a parent	48.9	45.0	3.9	8.8	4.8
Is a custodial single parent	27.7	22.4	5.3	23.5	6.4
Marital Status					
Married	23.3	20.2	3.1	15.4	3.8
Single	74.9	76.9	-1.9	-2.5	-2.4
Divorced, separated, or widowed	1.7	2.9	-1.2	-40.9	-1.5
Lives with parent(s) or guardian(s)	42.3	51.8	-9.5 *	-18.3	-11.6
Ever gone without health insurance in past year	30.2	32.8	-2.6	-7.9	-3.1
Received TANF or cash assistance in past year	10.4	6.3	4.1	64.1	4.9
Received food stamps in the past year	10.5	9.4	1.1	11.7	1.4
Registered to vote	63.2	56.7	6.5	11.5	7.9
Any recent illegal or drug-related activity ¹	12.6	13.3	-0.7	-5.4	-0.9
Sample size (N=360)	206	154			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled graduation. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: **** = 1 percent; ** = 5 percent; * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. High-risk students (approximately 25 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with the highest likelihood of dropping out.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

¹This measure includes illegal drug use in the past 2 weeks, breaking the law (other than traffic violations) in the past 2 weeks, current gang membership, and any arrests or convictions in the past year.

Career Academies Evaluation

Exhibit 5.1-LR

**Year-by-Year Impacts on Employment and Earnings
for the Low-Risk Subgroup**

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	Impact per Enrollee
<u>Years 1-4</u>					
Ever employed (%)	97.9	96.8	1.2	1.2	1.6
Ever employed full-time ¹ (%)	92.4	85.6	6.7 **	7.9	9.1
Months employed	35.9	36.2	-0.3	-0.8	-0.4
Months employed full-time	25.8	24.3	1.6	6.5	2.1
Average monthly earnings (\$)	1,013.89	987.10	26.78	2.7	36.13
Average weekly hours worked	27.7	26.6	1.1	3.9	1.4
Average hourly wage (\$)	8.95	8.63	0.32	3.8	0.43
Total number of jobs held	3.1	3.1	0.0	-0.9	0.0
Average job duration, in months	16.2	16.5	-0.2	-1.5	-0.3
<u>Year 1</u>					
Ever employed (%)	80.6	85.5	-4.8	-5.7	-6.5
Ever employed full-time ¹ (%)	60.4	62.7	-2.4	-3.8	-3.2
Months employed	7.5	8.1	-0.6	-7.5	-0.8
Months employed full-time	5.1	5.3	-0.2	-4.3	-0.3
Average monthly earnings (\$)	664.38	733.80	-69.42	-9.5	-93.66
Average weekly hours worked	21.7	22.9	-1.3	-5.5	-1.7
Average hourly wage (\$)	6.20	6.45	-0.24	-3.8	-0.32
<u>Year 2</u>					
Ever employed (%)	90.6	90.8	-0.2	-0.2	-0.2
Ever employed full-time ¹ (%)	70.6	69.9	0.7	1.0	1.0
Months employed	9.0	9.1	0.0	-0.2	0.0
Months employed full-time	6.3	6.1	0.2	3.9	0.3
Average monthly earnings (\$)	915.76	931.56	-15.80	-1.7	-21.32
Average weekly hours worked	27.8	26.9	0.9	3.5	1.3
Average hourly wage (\$)	7.50	7.67	-0.17	-2.3	-0.23
<u>Year 3</u>					
Ever employed (%)	92.1	90.4	1.7	1.9	2.3
Ever employed full-time ¹ (%)	79.0	72.5	6.5	8.9	8.7
Months employed	9.6	9.3	0.3	3.3	0.4
Months employed full-time	7.2	6.2	0.9	14.6	1.2
Average monthly earnings (\$)	1,150.24	1,062.94	87.30	8.2	117.78
Average weekly hours worked	30.8	28.2	2.6	9.3	3.5
Average hourly wage (\$)	8.67	8.32	0.35	4.2	0.47
Sample size (N=376)	208	168			

(continued)

Exhibit 5.1-LR (continued)

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
<u>Year 4</u>					
Ever employed (%)	92.2	91.8	0.4	0.4	<i>0.5</i>
Ever employed full-time ¹ (%)	78.1	70.7	7.5	10.6	<i>10.1</i>
Months employed	9.8	9.7	0.0	0.2	<i>0.0</i>
Months employed full-time	7.5	6.7	0.8	11.3	<i>1.0</i>
Average monthly earnings (\$)	1,331.53	1,228.70	102.82	8.4	<i>138.72</i>
Average weekly hours worked	30.8	28.8	2.0	6.8	<i>2.6</i>
Average hourly wage (\$)	9.84	9.36	0.48	5.1	<i>0.65</i>
<u>Last Quarter</u>					
Ever employed (%)	85.4	85.3	0.1	0.1	<i>0.2</i>
Ever employed full-time ¹ (%)	66.7	63.8	2.9	4.5	<i>3.9</i>
Months employed	2.5	2.5	-0.1	-2.2	<i>-0.1</i>
Months employed full-time	1.9	1.8	0.1	3.7	<i>0.1</i>
Average monthly earnings (\$)	1,395.55	1,326.93	68.62	5.2	<i>92.58</i>
Average weekly hours worked	31.0	30.3	0.6	2.0	<i>0.8</i>
Average hourly wage (\$)	9.45	9.00	0.46	5.1	<i>0.62</i>
Sample size (N=376)	208	168			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. Low-risk students (approximately 25 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with the lowest likelihood of dropping out.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students. See Exhibit 3.6 for the percentage of the Academy and the non-Academy group ever enrolled in a Career Academy.

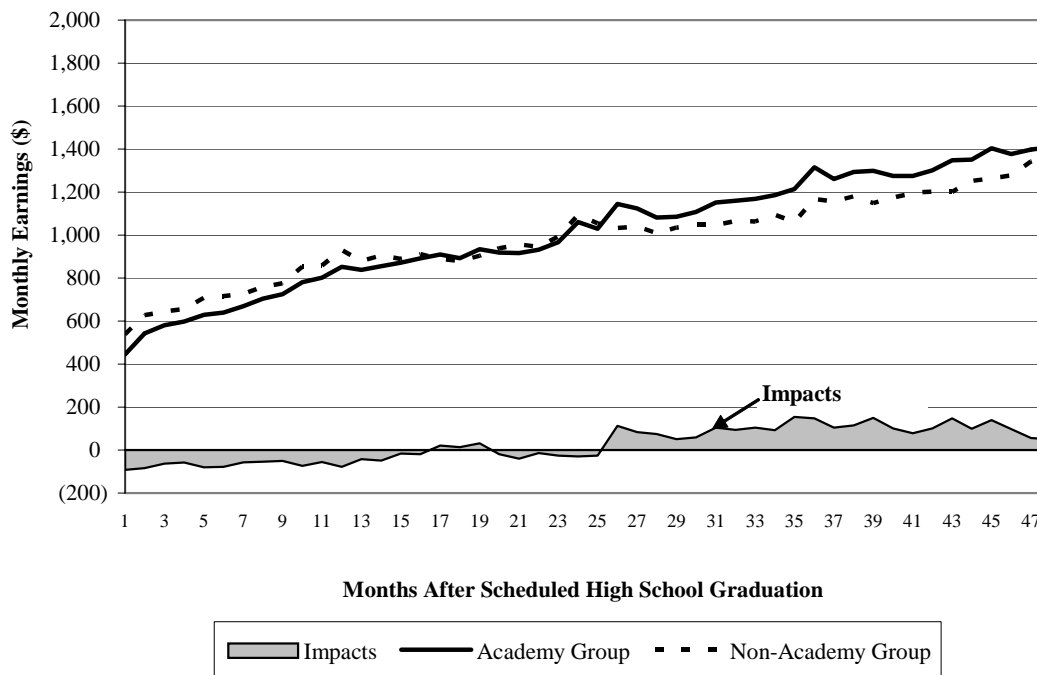
Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

For respondents who were never employed during a given month, earnings, hours, and wages are included in these averages as zeros.

¹Students were considered employed full-time if they reported working 30 or more hours per week.

Career Academies Evaluation
Exhibit 5.2-LR
Month-by-Month Impacts on Average Earnings
for the Low-Risk Subgroup



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Differences in monthly earnings are significant at the .10 level or lower in 37 out of the 48 months studied.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. Low-risk students (approximately 25 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with the lowest likelihood of dropping out. Percent change is defined as the impact divided by the non-Academy group average.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending wage at each job, and this rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average earnings.

For respondents who were never employed during a given month, earnings are included in these averages as zeros.

Career Academies Evaluation
Exhibit 5.3-LR
Impacts on Educational Attainment
for the Low-Risk Subgroup

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Ever enrolled in a Career Academy during high school (%)	86.0	11.9	74.1 ***	--	--
Was enrolled in a Career Academy at the end of scheduled grade 12 (%)	65.3	10.3	55.1 ***	--	--
<u>High school completion status (%)</u>					
Earned high school diploma or GED	100.0	99.4	0.6	0.6	0.8
Earned high school diploma	94.9	97.5	-2.6	-2.7	-3.5
On-time graduate ¹	89.2	91.1	-1.9	-2.1	-2.6
Late graduate	5.7	6.4	-0.7	-10.9	-0.9
Earned a GED	5.0	1.8	3.2	174.8	4.3
<u>Post-secondary education enrollment² (%)</u>					
Ever enrolled in post-secondary education	93.7	91.4	2.3	2.6	3.1
Highest post-secondary education enrollment					
Four-year college	46.9	47.0	-0.1	-0.3	-0.2
Two-year college	37.8	34.7	3.0	8.8	4.1
Skills training, technical or trade school	9.0	9.5	-0.5	-4.8	-0.6
Months enrolled in post-secondary education	30.2	31.5	-1.3	-4.0	-1.7
<u>Highest credential completed or in progress³ (%)</u>					
Any post-secondary credential	68.0	69.1	-1.1	-1.6	-1.5
Completed	25.9	23.8	2.2	9.1	2.9
In progress	42.1	45.5	-3.4	-7.5	-4.6
Bachelor's degree	31.6	37.8	-6.1	-16.2	-8.3
Completed	6.8	4.2	2.5	59.6	3.4
In progress	24.8	33.5	-8.7 *	-25.9	-11.7
Associate's degree	22.0	16.3	5.6	34.4	7.6
Completed	7.6	5.5	2.1	37.3	2.8
In progress	14.0	10.7	3.3	31.2	4.5
Skills training certificate or license	14.9	15.2	-0.3	-1.9	-0.4
Completed	11.5	13.8	-2.3	-16.7	-3.1
In progress	3.3	1.3	2.0	155.3	2.7
<u>Years of schooling completed⁴</u>	13.3	13.4	-0.1	-0.4	-0.1
Sample size (N=376)	208	168			

(continued)

Exhibit 5.3-LR (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. Low-risk students (approximately 25 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with the lowest likelihood of dropping out.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

¹Students were considered on-time graduates if they graduated in June or earlier of the year they were scheduled to graduate.

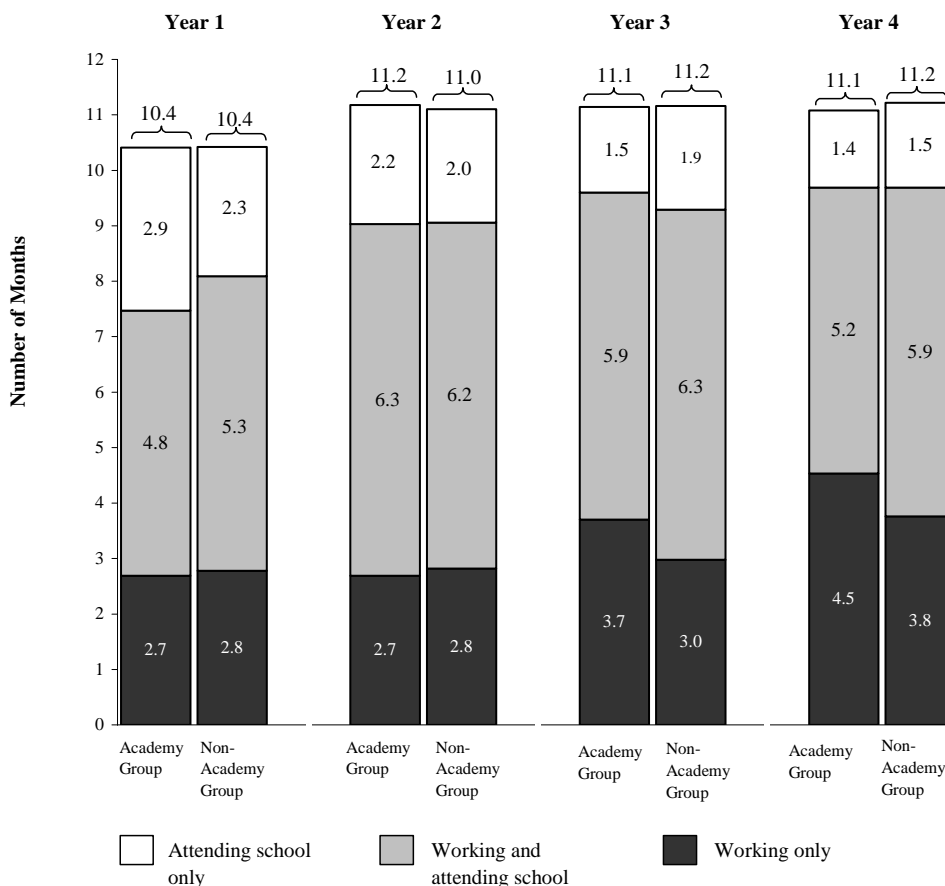
²Students must have earned a high school diploma or GED to be considered enrolled in a post-secondary education program.

⁴Years of school completed was calculated by assigning 12 years to a completed high school diploma or GED, 14 years to an associate's or 16 years to a completed bachelor's degree. For those who did not complete an associate's or a bachelor's degree, years of school completed was calculated as 12 plus the percentage of the degree completed through the end of the follow-up period. For those who did not complete a high school diploma or a GED, years of school completed was calculated as a percentage of the 12 years given for a completed high school diploma or a GED.

Career Academies Evaluation

Exhibit 5.4-LR

Year-by-Year Impacts on Months Spent Attending School or Working for the Low-Risk Subgroup



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: All measures reflect the average number of months spent in each status during each year of the 48-month follow-up period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. The difference between total months in any activity in year 4 was significant at .1 or lower.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. Low-risk students (approximately 25 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with the lowest likelihood of dropping out.

Career Academies Evaluation
Exhibit 5.5-LR
Impacts on Family Formation, Public Assistance, and Behaviors
for the Low-Risk Subgroup

Outcome (%)	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Is a parent	27.2	18.7	8.5 *	45.3	<i>11.5</i>
Is a custodial single parent	14.4	10.2	4.2	40.5	<i>5.6</i>
Marital Status					
Married	17.6	15.6	2.0	12.6	<i>2.7</i>
Single	78.2	82.0	-3.8	-4.6	<i>-5.1</i>
Divorced, separated, or widowed	4.3	2.5	1.8	74.3	<i>2.5</i>
Lives with parent(s) or guardian(s)	51.9	57.3	-5.4	-9.5	<i>-7.3</i>
Ever gone without health insurance in past year	27.2	27.8	-0.5	-2.0	<i>-0.7</i>
Received TANF or cash assistance in past year	4.2	2.6	1.6	63.2	<i>2.2</i>
Received food stamps in the past year	6.4	5.2	1.2	22.2	<i>1.6</i>
Registered to vote	67.0	65.5	1.5	2.3	<i>2.0</i>
Any recent illegal or drug-related activity ¹	4.1	1.5	2.7	181.0	<i>3.6</i>
Sample size (N=376)	208	168			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses reflect a 48-month period ending in June of 2000, 2001, or 2002 the fourth year following scheduled graduation. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. Low-risk students (approximately 25 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with the lowest likelihood of dropping out.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

¹This measure includes illegal drug use in the past 2 weeks, breaking the law (other than traffic violations) in the past 2 weeks, current gang membership, and any arrests or convictions in the past year.

Career Academies Evaluation

Exhibit 5.1-MR

**Year-by-Year Impacts on Employment and Earnings
for the Medium-Risk Subgroup**

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	Impact per Enrollee
<u>Years 1-4</u>					
Ever employed (%)	98.8	97.6	1.2	1.2	1.4
Ever employed full-time ¹ (%)	95.9	94.6	1.4	1.5	1.7
Months employed	37.4	35.5	1.9 *	5.3	2.3
Months employed full-time	30.5	28.3	2.2 *	7.6	2.6
Average monthly earnings (\$)	1,171.31	1,030.08	141.23 **	13.7	170.59
Average weekly hours worked	31.1	28.6	2.5 **	8.7	3.0
Average hourly wage (\$)	9.22	8.69	0.53 **	6.1	0.64
Total number of jobs held	3.1	3.2	0.0	-1.0	0.0
Average job duration, in months	16.0	15.5	0.5	3.4	0.6
<u>Year 1</u>					
Ever employed (%)	89.1	81.3	7.7 ***	9.5	9.3
Ever employed full-time ¹ (%)	74.0	67.3	6.7 *	9.9	8.1
Months employed	8.4	7.6	0.8 **	11.0	1.0
Months employed full-time	6.2	5.7	0.5	8.6	0.6
Average monthly earnings (\$)	855.99	704.75	151.24 ***	21.5	182.68
Average weekly hours worked	26.3	23.2	3.1 **	13.4	3.7
Average hourly wage (\$)	7.15	6.04	1.11 ***	18.4	1.34
<u>Year 2</u>					
Ever employed (%)	92.0	91.7	0.3	0.3	0.4
Ever employed full-time ¹ (%)	81.2	78.4	2.8	3.5	3.3
Months employed	9.5	9.0	0.5	5.4	0.6
Months employed full-time	7.6	7.1	0.6	8.0	0.7
Average monthly earnings (\$)	1,128.96	964.71	164.25 **	17.0	198.39
Average weekly hours worked	31.4	28.9	2.5 *	8.6	3.0
Average hourly wage (\$)	8.08	7.60	0.49 *	6.4	0.59
<u>Year 3</u>					
Ever employed (%)	93.9	91.5	2.4	2.6	2.9
Ever employed full-time ¹ (%)	84.2	79.8	4.5	5.6	5.4
Months employed	9.6	9.5	0.2	2.0	0.2
Months employed full-time	8.2	7.6	0.6 *	8.3	0.8
Average monthly earnings (\$)	1,278.19	1,152.52	125.67	10.9	151.79
Average weekly hours worked	33.2	31.0	2.2	7.0	2.6
Average hourly wage (\$)	8.86	8.32	0.54 *	6.5	0.65
Sample size (N=722)	385	337			

(continued)

Exhibit 5.1-MR (continued)

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
<u>Year 4</u>					
Ever employed (%)	91.7	92.3	-0.7	-0.7	<i>-0.8</i>
Ever employed full-time ¹ (%)	85.8	83.1	2.7	3.3	<i>3.3</i>
Months employed	9.8	9.5	0.4	3.8	<i>0.4</i>
Months employed full-time	8.4	8.0	0.5	5.8	<i>0.6</i>
Average monthly earnings (\$)	1,421.97	1,301.85	120.11	9.2	<i>145.08</i>
Average weekly hours worked	33.5	31.4	2.2	6.9	<i>2.6</i>
Average hourly wage (\$)	9.64	9.42	0.22	2.3	<i>0.27</i>
<u>Last Quarter</u>					
Ever employed (%)	84.0	82.6	1.4	1.7	<i>1.7</i>
Ever employed full-time ¹ (%)	75.6	71.2	4.4	6.2	<i>5.3</i>
Months employed	2.4	2.4	0.0	1.1	<i>0.0</i>
Months employed full-time	2.1	2.0	0.1	4.4	<i>0.1</i>
Average monthly earnings (\$)	1,464.00	1,394.51	69.49	5.0	<i>83.94</i>
Average weekly hours worked	33.1	31.7	1.4	4.3	<i>1.7</i>
Average hourly wage (\$)	9.34	9.00	0.33	3.7	<i>0.40</i>
Sample size (N=722)	385	337			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. Medium-risk students (approximately 50 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with neither a particularly low nor particularly high likelihood of dropping out.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students. See Exhibit 3.6 for the percentage of the Academy and the non-Academy group ever enrolled in a Career Academy.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending or most recent wages and hours worked for each job. This rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average wages and earnings.

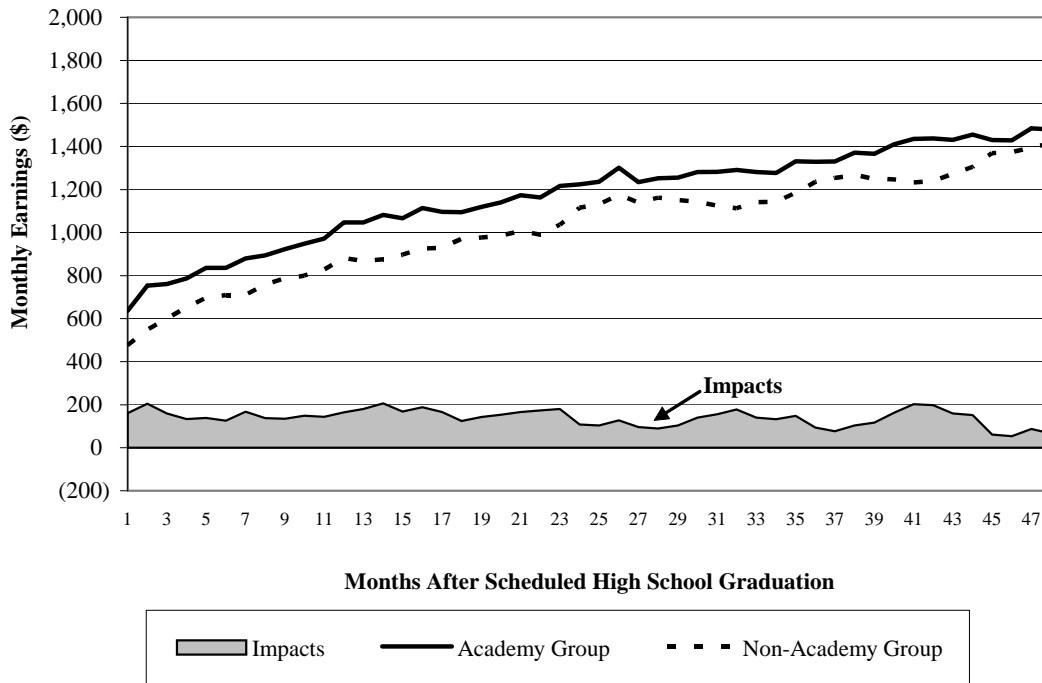
For respondents who were never employed during a given month, earnings, hours, and wages are included in these averages as zeros.

¹Students were considered employed full-time if they reported working 30 or more hours per week.

Career Academies Evaluation

Exhibit 5.2-MR

Month-by-Month Impacts on Average Earnings for the Medium-Risk Subgroup



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Measures reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Differences in monthly earnings are significant at the .10 level or lower in 37 out of the 48 months studied.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. Medium-risk students (approximately 50 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with neither a particularly low nor a particularly high likelihood of dropping out.

Respondents directly reported hours worked per week, weeks worked per month, and hourly wages. Earnings were calculated for each month by multiplying the wage by the hours worked times the number of weeks worked in that month. The maximum number of weeks in each month was capped at 4.

Respondents reported their ending wage at each job, and this rate was assumed to apply to the entire duration of the job. Thus, if wages or hours were lower at the beginning of each job, these measures may overestimate true average earnings.

For respondents who were never employed during a given month, earnings are included in these averages as zeros.

Career Academies Evaluation
Exhibit 5.3-MR
Impacts on Educational Attainment
for the Medium-Risk Subgroup

Outcome	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Ever enrolled in a Career Academy during high school (%)	88.8	6.0	82.8 ***	--	--
Was enrolled in a Career Academy at the end of scheduled grade 12 (%)	55.9	3.2	52.7 ***	--	--
<u>High school completion status (%)</u>					
Earned high school diploma or GED	92.9	92.1	0.7	0.8	0.9
Earned high school diploma	82.0	85.2	-3.3	-3.8	-3.9
On-time graduate ¹	74.2	74.0	0.2	0.3	0.3
Late graduate	7.7	11.2	-3.5	-31.0	-4.2
Earned a GED	10.8	6.9	3.9 *	56.8	4.7
<u>Post-secondary education enrollment² (%)</u>					
Ever enrolled in post-secondary education	80.1	79.2	1.0	1.2	1.2
Highest post-secondary education enrollment					
Four-year college	22.5	22.9	-0.4	-1.9	-0.5
Two-year college	43.3	36.7	6.6 *	18.0	8.0
Skills training, technical or trade school	14.6	19.7	-5.1 *	-25.8	-6.2
Months enrolled in post-secondary education	22.3	20.6	1.7	8.4	2.1
<u>Highest credential completed or in progress³ (%)</u>					
Any post-secondary credential	56.0	55.3	0.7	1.3	0.9
Completed	26.3	30.8	-4.5	-14.6	-5.4
In progress	29.9	24.9	5.1	20.4	6.1
Bachelor's degree	14.2	13.0	1.1	8.7	1.4
Completed	0.7	3.3	-2.6 **	-77.9	-3.1
In progress	13.4	9.8	3.6	37.0	4.4
Associate's degree	19.8	17.2	2.6	15.2	3.2
Completed	5.8	4.7	1.1	23.9	1.3
In progress	14.1	12.6	1.5	12.1	1.8
Skills training certificate or license	21.9	25.0	-3.1	-12.4	-3.8
Completed	19.6	22.6	-3.0	-13.3	-3.6
In progress	2.3	2.4	-0.1	-4.8	-0.1
<u>Years of schooling completed⁴</u>	12.6	12.6	0.0	0.2	0.0
Sample size (N=722)	385	337			

(continued)

Exhibit 5.3-MR (continued)

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses reflect a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. Medium-risk students (approximately 50 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with neither a particularly low nor a particularly high likelihood of dropping out.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students.

¹Students were considered on-time graduates if they graduated in June or earlier of the year they were scheduled to graduate.

²Students must have earned a high school diploma or GED to be considered enrolled in a post-secondary education program.

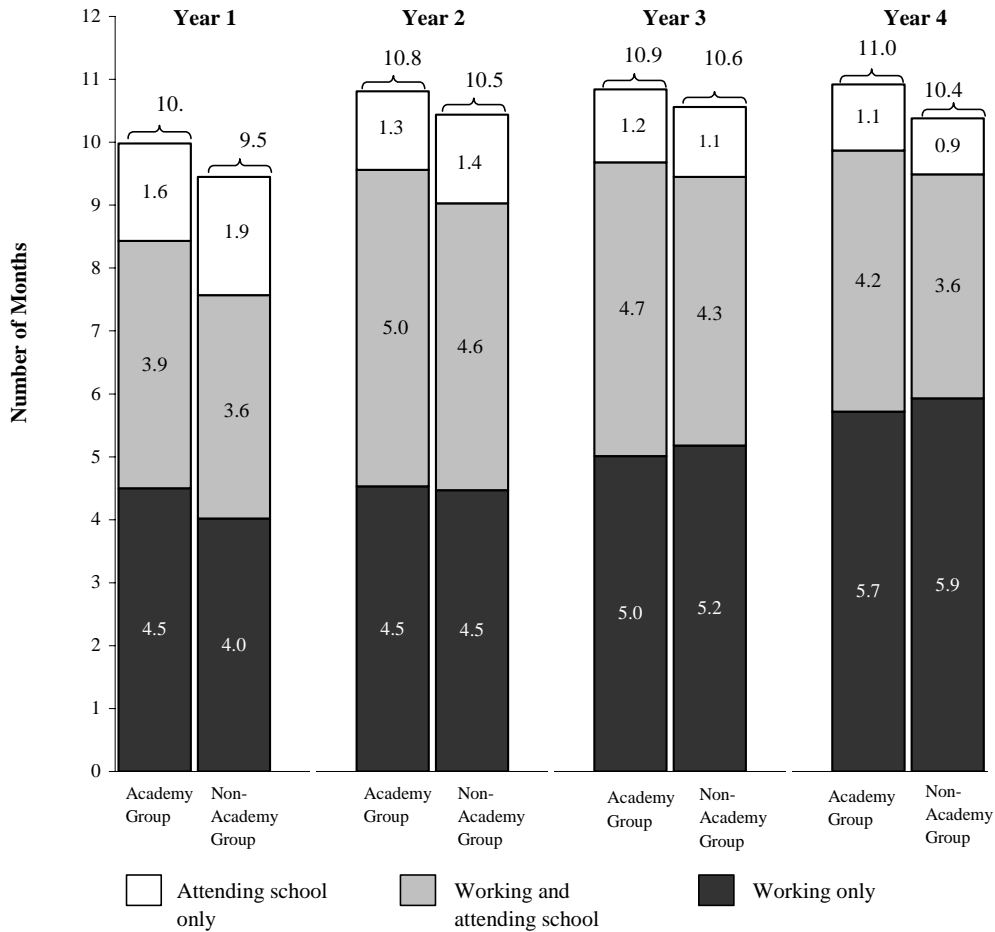
³A credential was considered "in progress" if the student reported attempting it in a program that he/she was currently attending (within three months of the end of the follow-up period) and expected to complete.

⁴Years of school completed was calculated by assigning 12 years to a completed high school diploma or GED, 14 years to an associate's or 16 years to a completed bachelor's degree. For those who did not complete an associate's or a bachelor's degree, years of school completed was calculated as 12 plus the percentage of the degree completed through the end of the follow-up period. For those who did not complete a high school diploma or a GED, years of school completed was calculated as a percentage of the 12 years given for a completed high school diploma or a GED.

Career Academies Evaluation

Exhibit 5.4-MR

Year-by-Year Impacts on Months Spent Attending School or Working for the Medium-Risk Subgroup



SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: All measures reflect the average number of months spent in each status during each year of the 48-month follow-up period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation for each sample member. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the Academy and non-Academy groups. The difference between total months in any activity in year 4 was significant at .1 or lower.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. Medium-risk students (approximately 50 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with neither a particularly low nor a particularly high likelihood of dropping out.

Exhibit 5.5-MR
Impacts on Family Formation, Public Assistance, and Behaviors
for the Medium-Risk Subgroup

Outcome (%)	Academy Group	Non-Academy Group	Impact	Percent Change	<i>Impact per Enrollee</i>
Is a parent	34.7	37.3	-2.6	-7.0	-3.1
Is a custodial single parent	16.9	18.0	-1.1	-6.3	-1.4
Marital Status					
Married	19.1	20.4	-1.4	-6.7	-1.7
Single	77.5	77.3	0.3	0.3	0.3
Divorced, separated, or widowed	3.3	2.1	1.2	57.6	1.5
Lives with parent(s) or guardian(s)	49.4	49.9	-0.6	-1.1	-0.7
Ever gone without health insurance in past year	27.0	33.4	-6.5 *	-19.3	-7.8
Received TANF or cash assistance in past year	7.2	7.3	-0.1	-0.8	-0.1
Received food stamps in the past year	11.3	8.7	2.6	30.3	3.2
Registered to vote	67.2	67.7	-0.6	-0.8	-0.7
Any recent illegal or drug-related activity ¹	5.1	4.7	0.4	9.3	0.5
Sample size (N=722)	385	337			

SOURCE: MDRC calculations from the Career Academies Evaluation Four-Year Post-High School Follow-Up Survey Database.

NOTES: Unless otherwise indicated, statuses were reported for the end of a 48-month period ending in June of 2000, 2001, or 2002: the fourth year following scheduled high school graduation. Estimates are regression-adjusted using maximum likelihood estimation, controlling for background characteristics. Standard errors are adjusted to account for the clustering of students within schools and random assignment years. Rounding may cause slight discrepancies in calculating differences. A two-tailed t-test was applied to differences between the Academy and non-Academy groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The definition of risk subgroups involved identifying background characteristics that best predicted dropping out among students in the non-Academy group. Medium-risk students (approximately 50 percent of both the Academy and the non-Academy groups) have an array of these characteristics associated with neither a particularly low nor a particularly high likelihood of dropping out.

Percent change is the impact divided by the non-Academy group average.

Impact per enrollee is defined as the impact divided by the difference in the percentage of Academy and non-Academy group members ever enrolled in a Career Academy. It is italicized because its calculation does not involve a direct comparison of Academy and non-Academy students. See Exhibit 3.6.

¹This measure includes illegal drug use in the past 2 weeks, breaking the law (other than traffic violations) in the past 2 weeks, current gang membership, and any arrests or convictions in the past year.