Corporation for NATIONAL & COMMUNITY SERVICE

# National Evaluation of Youth Corps: Findings at Follow-up

## Technical Appendices

June 2011


Prepared for
Corporation for National and Community Service
Office of Strategy and Special Initiatives
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This report was prepared by Abt Associates Inc. for the Corporation for National and Community Service, under contract numbers GS10F0086K and CNSHQ09A0010.

Corporation for National and Community Service
Office of Strategy and Special Initiatives
June 2011

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The Corporation contracted with Abt Associates Inc., an independent and nonpartisan research firm, to conduct the study.



The suggested citation is: Price, C., Williams, J., Simpson, L., Jastrzab, J., and Markovitz, C. (2011). *National Evaluation of Youth Corps: Findings at Follow-up.* Prepared for the Corporation for National and Community Service. Cambridge, MA: Abt Associates Inc.

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# National Evaluation of Youth Corps:

# Findings at Follow-up

# Technical Appendices

**June 2011**

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# Appendix A: Details of the Impact Analyses

This appendix provides details on the model specifications for each type of analysis conducted for this report, followed by information on the minimum detectable effect sizes. The model specifications are presented in the same order as the chapters of the report.

The random assignment design of the study allowed the study team to assess the impacts of the youth corps program on participants. The random assignment produced comparable treatment and control groups, thereby establishing a "counterfactual" for what would have happened to treatment group members in the absence of program participation (i.e., the control group). It can therefore be said that differences between the treatment and control groups in the assessed outcomes were due to program participation.

## Main Effects Model (Chapter 3: Impact Results)

For each outcome measure, the study team estimated an analysis model to produce an estimate of the average impact of the intervention across the 21 corps (the treatment effect). In order to improve precision and mitigate potential effects of nonresponse bias, the models included baseline covariates, and when available, a pretreatment score on the outcome measure. Observations were weighted based upon probability of selection and survey nonresponse. Models were fit to the data using the SAS SurveyReg procedure (version 9.2) in order to adjust the standard errors of the treatment effect to account for the sampling design and the use of sampling weights. The general form of the analytic model was[1]:

$$Y_{km} = \beta_0 + \beta_1(T_{km}) + \beta_2(Y_{pre.km}) + \sum_{m=1}^{20} \beta_{m+2}(Corps_m) + \sum_{j=1}^{J} \beta_{m+2+j}(X_{jkm}) + \varepsilon_{km}$$

where

- $Y_{km}$ is the outcome measure for the $k^{th}$ survey respondent from the $m^{th}$ corps.
- $T_{km}$ =1 if respondent was assigned to treatment group, =0 if control group.
- $Y_{pre.km}$ is a baseline (pretest) measure of the same construct or variable used as the outcome measure for the $k^{th}$ survey respondent from the $m^{th}$ corps.
- $Corps_m$ is an indicator variable for the $m^{th}$ (m=1…20) corps, =1 if respondent in corps $m$, =0 else. (Note there are 20 indicator variables to represent nesting of respondents within 21 corps).
- $X_{jkm}$ is the value of the $j^{th}$ baseline demographic covariate (j=1…J) for the $k^{th}$ survey respondent from the $m^{th}$ corps. (List of covariates is provided below.)
- $\beta_1$ is the *intent-to-treat* (ITT) effect.
- $\varepsilon_{km}$ is a residual error term.

[1] Binary outcomes were analyzed in the linear probability models as shown here. Sensitivity analyses showed that fitting similar models, but in a logistic regression framework, produced estimates that were almost identical to the estimates from the linear models. The linear models, however, produced treatment effect estimates that were more easily interpretable.

While providing estimates of the difference between the treatment and control groups, the regression models also tested the hypothesis that this difference is non-zero ($H_0$: $\beta_1=0$). Two-tailed t-tests were used to assess the statistical significance of the estimated impacts. In this report statistically significant differences (where the p-value produced via the regression models is less than 0.05) are marked with an asterisk (*).

The baseline covariates included in all analyses reported upon, indicated by $X_{jkm}$ above, were:

- The baseline measure of the outcome of interest (where available);
- Gender;
- Race;
- Education level;
- Age;
- Marital status; and
- Whether or not the respondent lived in a "stable" housing situation for the three months prior to the baseline survey (stable housing includes having lived in parent or guardians' house, own house, one friend or relative's house, or on a military base).

For a list of the outcome measures for which the study team estimated impacts, see Exhibits 3.1 to 3.12 in the body of the report.

# Subgroup Effects Model (Chapter 4: Subgroup Analyses)

In the subgroup analyses, the study team first tested whether the impacts varied between the levels of a subgroup. For example, the study team tested whether the impact of youth corps on the probability of being employed or in school at the 30-month follow-up was the same for males and females. These tests addressed the question, "*do impacts vary with the characteristics of the participants?*" To answer this question, for each subgroup the study team tested for an interaction between being in the treatment or control group and being in a particular subgroup level. If the interaction was significant, then it was concluded that the impacts of youth corps varied based upon that subgroup characteristic (i.e., the impact of youth corps on the tested outcome was different for males versus females). Models were fit to the data using the SAS SurveyReg procedure (version 9.2) in order to adjust the standard errors to account for the sampling design and the use of sampling weights. The general form of the analytic models for this type of subgroup test was:

$$Y_{km} = \beta_0 + \beta_1(T_{km}) + \beta_2(SubGrp_{km}) + \beta_3(T_{km} * SubGrp_{km}) + \beta_4(Y_{pre.km}) + \sum_{m=1}^{20}\beta_{m+4}(Corps_m) + \sum_{j=1}^{J}\beta_{m+4+j}(X_{jkm}) + \varepsilon_{km}$$

where

| | |
|---|---|
| $Y_{km}$ | is the outcome measure for the $k^{th}$ survey respondent from the $m^{th}$ corps. |
| $T_{km}$ | =1 if respondent was treatment group, =0 if control group. |

| | |
|---|---|
| $SubGrp_{km}$ | =1 if respondent was in the subgroup being tested, =0 if not. |
| $T_{km} * SubGrp_{km}$ | is the interaction term combining treatment/control group assignment with the subgroup classification level. |
| $Y_{pre.km}$ | is a baseline (pretest) measure of the same construct or variable used as the outcome measure for the $k^{th}$ survey respondent from the $m^{th}$ corps. |
| $Corps_m$ | is an indicator variable for the $m^{th}$ (m=1…20) corps, =1 if respondent in corps $m$, = 0 else. (Note there are 20 indicator variables to represent nesting of respondents within 21 corps.) |
| $X_{jkm}$ | is the value of the $j^{th}$ baseline covariate (j=1…J) for the $k^{th}$ survey respondent from the $m^{th}$ corps. |
| $\beta_1$ | is the ITT effect for subgroup = 0. |
| $\beta_1 + \beta_3$ | is the ITT effect for subgroup = 1. |
| $\beta_3$ | is the difference between ITT effects for subgroup =1 and subgroup=0. |
| $\varepsilon_{km}$ | is a residual error term. |

The study team also conducted analyses to estimate impacts within each of the levels of each subgroup. For example, the study team estimated the impact of youth corps on the probability of being employed or in school at the time of the 30-month follow-up survey for individuals who were male. The study team also estimated the impact on individuals who were female. These tests addressed the question, "*does youth corps have an impact for a particular type of participant (e.g., males)?*" For these types of tests the model was the same as the main effects model (above), except that analysis was conducted on specific subsets of the full sample defined by respondent characteristics.

# Program Variation Model (Chapter 5: Variations in Impacts by Program)

Chapter 5 reports on analyses conducted to determine whether treatment effects varied across youth corps programs. These analyses were motivated by questions of whether there were particular programs or particular characteristics of programs that were associated with producing positive impacts on outcomes. For each outcome, the analysis approach involved first a test of whether there were significant differences among programs in the impact of youth corps. For outcomes where the test indicated significant variation of impacts among programs, the next step of the analysis was to produce a graphical display of the impact estimate for each program. The analysis team had originally envisioned a subsequent step where variation in impacts would be modeled to determine whether any program-level characteristics of youth corps programs were significant predictors of the program-level impact estimates. However, the study did not have measures of program-level implementation or measures of service provision, and modeling variation in impacts as a function of program-level demographic characteristics (e.g., the percent of corpsmembers who were male) was conducted but the results were ultimately determined to be uninformative.

The analysis team judged that producing program-level impact estimates and modeling variation of impact estimates would be best accomplished in a hierarchical linear modeling (HLM) framework. The HLM approach is ideal for this type of analysis for two reasons: (1) the empirical Bayes estimators of

individual program impacts are more precise than those arising from a fixed-effects approach; and (2) the HLM approach allows the modeling of program-level impacts in a second level equation where obtaining the correct standard errors for program-level predictors is straightforward, whereas obtaining the correct standard errors in a fixed-effects approach is difficult. To conduct these analyses, HLM Software (Version 6) was used to fit two-level hierarchical linear models (HLMs) of the form shown below.

Level-1 Model:

$$Y_{ij} = \gamma_{0j} + \gamma_{1j}(T_{ij}) + \beta_2(Y_{pre.ij}) + \sum_{m=1}^{M} \beta_{m+2}(x_{m.ij}) + \varepsilon_{ij}$$

Level-2 Model:

$$\gamma_{0j} = \beta_0 + \alpha_{0j}$$
$$\gamma_{1j} = \beta_1 + \alpha_{1j}$$

The estimate of the grand mean treatment effect is $\hat{\beta}_1$, the estimate of the treatment effect at program *j* is $\hat{\gamma}_{1j}$ (i.e., the grand mean treatment estimate plus the deviation from the grand mean for program *j*). The estimates $\hat{\gamma}_{1j}$ and their 95 percent confidence intervals are shown in the exhibits in Chapter 5. A test of whether impacts vary among programs is obtained by testing whether the variance of $\alpha_{1j}$ is equal to zero. When the variance of $\alpha_{1j}$ was significantly greater than zero, the study team then fit models that used program-level characteristics as predictors of the program-level treatment effects (these results are not reported, however, as they were determined to be uninformative). The models were of the form:

$$\gamma_{0j} = \beta_0 + \lambda_{01} SC_j + \alpha_{0j}$$
$$\gamma_{1j} = \beta_1 + \lambda_{11} SC_j + \alpha_{1j}$$

where

| | |
|---|---|
| $SC_j$ | is a program-level characteristic of program *j*. |
| $\lambda_{11}$ | is the parameter relating the measure of the program-level characteristic to the size of the treatment effect in program *j*. |

# Dosage Model (Chapter 6: Length of Time in Youth Corps Program)

The models wherein the research team explored relationships between the length of time spent in the youth corps program and the outcomes of interest were fit only to 954 treatment group members for whom length of time could be determined. See Exhibit 6.2 in Chapter 6.

For models where the dosage measure was either "number of months between program entry and exit" (*Mos_EntryDate_to_EndDate3*), or the dichotomous indicator for whether a treatment group member was in a youth corps program for six months or more (*MosGt6*), the form of the exploratory models was:

$$Y_{km} = \beta_0 + \beta_1(Dosage_{km}) + \sum_{m=1}^{20} \alpha_m(Corps_m) + \beta_2(Y_{pre.km}) + \sum_{j=1}^{J} \beta_{(2+j)}(X_{jkm}) + \varepsilon_{km}$$

where

| | |
|---|---|
| $Y_{km}$ | is the outcome measure for the $k^{th}$ survey respondent from the $m^{th}$ corps. |
| $Dosage_{km}$ | is either *Mos_EntryDate_to_EndDate3* or *MosGt6*. |
| $Y_{pre.km}$ | is a baseline (pretest) measure of the same construct or variable used as the outcome measure for the $k^{th}$ survey respondent from the $m^{th}$ corps. |
| $Corps_m$ | is an indicator variable for the $m^{th}$ (m=1…20) corps, =1 if respondent in corps *m*, = 0 else. (Note there are 20 indicator variables to represent nesting of respondents within 21 corps.) |
| $X_{jkm}$ | is the value of the $j^{th}$ baseline covariate (j=1…J) for the $k^{th}$ survey respondent from the $m^{th}$ corps. |
| $\beta_1$ | is the difference in the outcome measure associated with a one unit increase in the dosage measure.<br>For *Mos_EntryDate_to_EndDate3*, a one unit increase corresponds to one additional month of youth corps.<br>For *MosGt6*, a one unit increase corresponds to being in the group "months >=6," vs. being in the group "months <6." |
| $\varepsilon_{km}$ | is a residual error term. |

Models were fit to the data using the SAS SurveyReg procedure (version 9.2) in order to adjust the standard errors to account for the sampling design and the use of sampling weights.

For the dosage measure wherein the study team combined an indicator for whether respondents were enrolled full-time or part-time with the indicator for having spent six or more months in youth corps, the form of the exploratory models was:

$$Y_{km} = \beta_0 + \beta_1(FullTime\_LT6mos_{km}) + \beta_2(PartTime\_GE6mos_{km}) + \beta_3(FullTime\_GE6mos_{km}) + \sum_{m=1}^{20} \alpha_m(Corps_m) + \beta_2(Y_{pre.km}) + \sum_{j=1}^{J} \beta_{(2+j)}(X_{jkm}) + \varepsilon_{km}$$

where

| | |
|---|---|
| $Y_{km}$ | is the outcome measure for the $k^{th}$ survey respondent from the $m^{th}$ corps. |
| $FullTime\_LT6mos_{km}$ | is a dummy variable indicating being in the group "full-time participant and member was in a youth corps program for less than 6 months." (Note: the group "part-time participant and member was in a youth corps program for less than 6 months" is the omitted group.) |
| $PartTime\_GE6mos_{km}$ | is a dummy variable indicating being in the group "part-time participant and member was in a youth corps program for 6 months or more." (Note: the group "part-time participant and member was in a youth corps program for less than 6 months" is the omitted group.) |
| $FullTime\_GE6mos_{km}$ | is a dummy variable indicating being in the group "full-time participant and member was in a youth corps program for 6 months or more." (Note: the group "part-time participant and member was in a youth corps program for less than 6 months" is the omitted group.) |
| $Y_{pre.km}$ | is a baseline (pretest) measure of the same construct or variable used as the outcome measure for the $k^{th}$ survey respondent from the $m^{th}$ corps. |
| $Corps_m$ | is an indicator variable for the $m^{th}$ (m=1…20) corps, =1 if respondent in corps $m$, = 0 else. (Note there are 20 indicator variables to represent nesting of respondents within 21 corps.) |
| $X_{jkm}$ | is the value of the $j^{th}$ baseline covariate (j=1…J) for the $k^{th}$ survey respondent from the $m^{th}$ corps. |
| $\hat{\beta}_1$ | is the predicted difference in the outcome measure associated with being in the group "full-time participant and member was in a youth corps program for less than 6 months," as compared to being in the omitted group "part-time participant and member was in a youth corps program for less than 6 months." |
| $\hat{\beta}_2$ | is the predicted difference in the outcome measure associated with being in the group "part-time participant and member was in a youth corps program for 6 months or more," as compared to being in the omitted group "part-time participant and member was in a youth corps program for less than 6 months." |
| $\hat{\beta}_3$ | is the predicted difference in the outcome measure associated with being in the group "full-time participant and member was in a youth corps program for 6 months or more," as compared to being in the omitted group "part-time participant and member was in a youth corps program for less than 6 months." |
| $\varepsilon_{km}$ | is a residual error term. |

# AmeriCorps Funding Support Model (Chapter 7: Relationships of AmeriCorps Funding Support to Outcomes)

The models wherein the research team explored relationships between AmeriCorps funding support and the outcomes of interest were fit only to the 989 treatment group members for whom AmeriCorps funding status could be determined. See Appendix E.

In Chapter 7, baseline demographic characteristics and outcomes were compared for individuals who received full AmeriCorps funding, who received a Segal AmeriCorps Education Award and who received no AmeriCorps funding. All means shown are weighted means. The tests of whether means differed by group were obtained from fitting models of the form shown below:

$$Y_{km} = \beta_0 + \beta_1(AC_{km}) + \beta_2(EdOnly_{km}) + \varepsilon_{km}$$

where

| | |
|---|---|
| $Y_{km}$ | is a demographic characteristic or an outcome measured at baseline or 18-month follow-up for the $k^{th}$ survey respondent from the $m^{th}$ corps. |
| $AC_{km}$ | is an indicator for having received full AmeriCorps funding. |
| $EdOnly_{km}$ | is an indicator for having received a Segal AmeriCorps Education Award. |
| $\beta_1$ | is the difference in the outcome measure associated with being fully AmeriCorps-funded, as opposed to being a non-AmeriCorps participant. |
| $\beta_2$ | is the difference in the outcome measure associated with being a receiver of a Segal AmeriCorps Education Award, as opposed to being a non-AmeriCorps participant. |
| $\varepsilon_{km}$ | is a residual error term. |

Models were fit to the data using the SAS SurveyReg procedure (version 9.2) in order to adjust the standard errors to account for the sampling design and the use of sampling weights. The Bonferroni correction was utilized in this analysis to adjust for the multiple pair-wise comparisons between the three groups. This correction was applied to test the underlying null hypothesis that for a particular baseline demographic, or baseline or follow-up outcome measure, the means were equivalent for the three AmeriCorps funding receipt groups. But, three hypothesis tests were used to test this single hypothesis. To be explicit, a significant difference on any of the three tests would be treated as evidence that the hypothesis should be rejected.

# Minimum Detectable Standardized Effect Sizes

Given the actual sample sizes, the study team estimated the minimum detectable effect sizes (MDE) corresponding to 80 percent power.[2] MDEs were estimated for one key item from the 18-month follow-up survey, and for two key items from the 30-month follow-up survey. For the 18-month follow-up survey

[2] MDSES = $(t_{\alpha/2} + t_{\beta})s.e.(\hat{\theta})$. Using a two-tailed test with alpha equal to 0.05, and 80 percent power.

outcome “whether or not the respondent volunteered through or for an organization in the year prior to the 18-month follow-up survey” the study had 80 percent power to detect an effect of 10.3 percentage points or larger. For the 30-month survey outcome “respondent is employed or in school at the time of the 30-month follow-up survey” the study had 80 percent power to detect an effect of 9.6 percentage points or larger. For the “respondent had attained a high school diploma or GED at the time of the 30-month tracking survey” the study has 80 percent power to detect an effect of 7.5 percentage points or larger.

In summary, the study was powered to detect approximately an 8 to 10 percentage point impact on yes-no outcomes in both the 18-month follow-up and the 30-month follow-up surveys.

# Appendix B: Construct Measures of Attitudes or Behaviors

This appendix describes the outcome measures that were built from multiple survey items and were intended to measure an underlying construct of respondent attitudes or behaviors. An example is the outcome "connection to community," which represents the respondent's opinion about the strength of his or her connection to the community. These outcome measures are referred to as constructs. They were created to align with the same measures used in 2008 impact evaluation of AmeriCorps. Each of the construct measures were developed in collaboration with the Corporation.

Exhibit B.1 shows the individual survey items that were used in construction of each of the construct measures of attitudes or behaviors. The creation of each construct began with the identification of a pool of survey items that were believed to measure a common underlying dimension of an attitude or behavior. The choice of which items to include in the pool of items for a particular measure was primarily based on use of the same or similar items that had been used to create measures for the Longitudinal Study of AmeriCorps.[3] Using data from the baseline and 18-month follow-up surveys, the Cronbach's alpha reliability index was calculated using all items in the original pool. When the reliability could be improved by dropping an item from a construct, the item was dropped. Likewise, when the reliability could be improved by adding an item to a construct, the item was added (Exhibit B.1).

[3] Yamaguchi et al., 2008.

**Exhibit B.1**
**Comparing Constructs Items from the AmeriCorps Study to the Youth Corps Study**

| Construct | Does the construct for Youth Corps differ from AmeriCorps? | If so, how and why? |
|---|---|---|
| Importance of Service-Oriented Careers | Yes | Youth corps survey did not ask "Having a job that involves working with other people." |
| Civic Obligations | Yes | Youth corps combined Civic Obligations and Neighborhood Obligations constructs to achieve higher Cronbach's alpha. |
| Neighborhood Obligations | Yes | Youth corps combined Civic Obligations and Neighborhood Obligation constructs to achieve higher Cronbach's alpha. |
| Community-Based Activism | Yes | The youth corps survey included additional questions that were not asked in the AmeriCorps survey. By including these questions, the construct had a higher Cronbach's alpha. |
| Connection to Community | No | |
| Social Trust | Yes | This is a new construct included in the youth corps study. |
| Engagement in the Political Process | Yes | The youth corps survey included additional questions that were not asked in the AmeriCorps survey. By including these questions, the construct had a higher Cronbach's alpha. |
| Local Civic Efficacy | No | |
| National Voting Participation | Yes | This is a new construct included in the youth corps study. |
| Decision-Making Skills | Yes | This is a new construct included in the youth corps study. |
| Appreciation of Cultural and Ethnic Diversity | Yes | Only some questions from the AmeriCorps survey were asked on the youth corps survey. If the questions were asked then they were included, but this construct did not include other similar youth corps questions. |
| Leadership Qualities | Yes | These questions were included in the Decision Making construct, resulting in a higher Cronbach's alpha for that construct. Their alpha was not high enough without the other questions. |
| Risky Behaviors | Yes | This is a new construct included in the youth corps study. |

A common question is, “how large must a reliability coefficient be to be considered acceptable?” A widely used rule of thumb of 0.70 has been suggested by Nunnally (1978) to be considered acceptable. In the social sciences literature, however, analyses based on variables with alpha reliabilities under 0.70 and sometimes even under 0.60 are not uncommon.[4] For the current study, the Cronbach’s alpha reliability coefficients ranged from 0.52 to 0.76 (Exhibit B.2).

Once the final items assigned to each construct were identified, the individual items were standardized to have a mean of zero and a standard deviation of one. A preliminary construct score was calculated at the mean of the standardized scores of all items in the construct. The constructs were then rescaled such that the control group mean and standard deviation would be 50 and 10, respectively.

[4] Hatcher (1994, p. 137)

## Exhibit B.2
## Constructs, Corresponding Survey Items, and Cronbach's Alpha

| | Constructs and Corresponding Survey Items | Unit of Measurement | Cronbach's Alpha Statistic (from 18-month follow-up survey) |
|---|---|---|---|
| **Importance of Service-Oriented Careers** (Attitude) *represents the respondent's opinion about the importance of working in a position that contributes to others.* | | | |
| 1 | Importance of working to correct social and economic inequalities. | 1=Not at all important; 2=Somewhat important; 3=Very Important | 0.52 |
| 2 | Importance of working in a job where I am of direct service to people. | 1=Not at all important – 3=Very Important | |
| **Neighborhood and Civic Obligation** (Attitude) *represents the respondent's opinion about the importance of being active in his/her neighborhood and participating in various civic activities, including serving on a jury, reporting crimes, keeping the neighborhood clean and safe, participating in neighborhood organizations.* | | | |
| 1 | Likelihood of serving on a jury if called. | 1=Not at all likely; 2=Not too likely; 3=Not sure how likely; 4=Somewhat likely; 5=Very likely | 0.72 |
| 2 | Likelihood of reporting a crime that you may have witnessed. | 1=Not at all likely – 5=Very likely | |
| 3 | Likelihood of participating in neighborhood organizations. | 1=Not at all likely – 5=Very likely | |
| 4 | Likelihood of voting in elections. | 1=Not at all likely – 5=Very likely | |
| 5 | Likelihood of helping to keep the neighborhood safe. | 1=Not at all likely – 5=Very likely | |
| 6 | Likelihood of helping to keep the neighborhood clean and beautiful. | 1=Not at all likely – 5=Very likely | |
| 7 | Likelihood of helping those who are less fortunate. | 1=Not at all likely – 5=Very likely | |
| **Community-Based Activism** (Behavior) *provides respondent's reports of the frequency with which he/she participates in community-based activities, including attending community meetings and writing newspapers to voice opinions.* | | | |
| 1 | In the last 12 months, how often have you worked with other people in your neighborhood to fix or improve something? | 1=Never; 2=Rarely; 3=Sometimes; 4=Often; 5=Always | 0.79 |
| 2 | In the last 12 months, how often have you attended any public meeting where there was a discussion of community affairs? | 1=Never – 5=Always | |
| 3 | In the last 12 months, how often have you attended any club or organizational meeting? | 1=Never – 5=Always | |
| 4 | How often do you participate in community events such as community meetings, celebrations, or activities? | 1=Never – 5=Always | |
| 5 | How often do you join organizations that support issues that are important to you? | 1=Never – 5=Always | |
| 6 | How often do you write or e-mail newspapers or organizations to voice your views on an issue? | 1=Never – 5=Always | |

## Exhibit B.2
## Constructs, Corresponding Survey Items, and Cronbach's Alpha

| | Constructs and Corresponding Survey Items | Unit of Measurement | Cronbach's Alpha Statistic (from 18-month follow-up survey) |
|---|---|---|---|
| **Connection to Community** (Attitude) *represents the respondent's opinion about the strength of his/her connection to the community, as represented by the strength of feelings toward the community, including attachment, awareness, and commitment.* | | | |
| 1 | Agreement with I have a strong attachment to my community. | 1=Strongly disagree; 2=Disagree; 3=Neither agree nor disagree; 4=Agree; 5=Strongly agree | 0.77 |
| 2 | Agreement with I often discuss and think about how larger political and social issues affect my community. | 1=Strongly disagree – 5=Strongly agree | |
| 3 | Agreement with I am aware of what can be done to meet the important needs in my community. | 1=Strongly disagree – 5=Strongly agree | |
| 4 | Agreement with I have the ability to make a difference in my community. | 1=Strongly disagree – 5=Strongly agree | |
| 5 | Agreement with I try to find the time to make a positive difference in my community. | 1=Strongly disagree – 5=Strongly agree | |
| **Social Trust** (Attitude) *represents the respondent's opinion about the degree to which he/she can trust people and members of his/her community, including the local police.* | | | |
| 1 | Agreement with most people can be trusted. | 1=Strongly disagree – 5=Strongly agree | 0.60 |
| 2 | Agreement with I trust people in my neighborhood. | 1=Strongly disagree – 5=Strongly agree | |
| 3 | Agreement with I trust the local police. | 1=Strongly disagree – 5=Strongly agree | |
| **Engagement in the Political Process** (Behavior) *provides respondent's reports of the frequency with which he/she participates in activities intrinsic to the political process, including talking with others about politics.* | | | |
| 1 | Agreement with I think that I am better informed about politics and government than most people. | 1=Strongly disagree – 5=Strongly agree | 0.77 |
| 2 | Agreement with I consider myself well qualified to participate in politics. | 1=Strongly disagree – 5=Strongly agree | |
| 3 | Generally speaking, how interested are you in politics? | 1=Not at all – 3=A great deal | |
| 4 | How many days in the past year did you talk about politics with your friends, parents or other adults. | Number of days (0 – 7) | |
| 5 | How often do you vote in local elections? | 1=Never – 5=Always | |
| 6 | How often do you try to learn as much as you can about candidates or ballot questions before voting? | 1=Never – 5=Always | |
| 7 | Likelihood of keeping informed about news and public issues. | 1=Not at all likely – 5=Very likely | |

## Exhibit B.2
## Constructs, Corresponding Survey Items, and Cronbach's Alpha

| Constructs and Corresponding Survey Items | Unit of Measurement | Cronbach's Alpha Statistic (from 18-month follow-up survey) |
|---|---|---|
| **Local Civic Efficacy** (Attitude) *represents the respondent's opinion about the feasibility of working with local or state government to meet a range of community needs, such as fixing a pothole or getting an issue on a statewide ballot.* | | |
| 1 Ability to get the local government to fix a pothole in my street. | 1=Not be able to get done; 2=Might be able to get done; 3=Would be able to get done; 4=Has done in the last 12 months | 0.63 |
| 2 Ability to get the local government to build an addition to the community center. | 1=Not be able to get done – 4=Has done in the last 12 months | |
| 3 Ability to get an issue on the ballot for statewide election. | 1=Not be able to get done – 4=Has done in the last 12 months | |
| **Grass Roots Efficacy** (Attitude) *represents the respondent's opinion about the feasibility of starting a grassroots effort to meet a range of community needs, such as starting an after-school program or organizing a park cleanup program.* | | |
| 1 Ability to organize an event to benefit a charity or religious organization. | 1=Not be able to get done – 4=Has done in the last 12 months | 0.65 |
| 2 Ability to start an after-school program for children whose parents work. | 1=Not be able to get done – 4=Has done in the last 12 months | |
| 3 Ability to organize an annual clean-up program for the local park. | 1=Not be able to get done – 4=Has done in the last 12 months | |
| **National Voting Participation** (Behavior) *represents whether the respondent voted in the 2006 national election, and plans to vote in the 2008 national election.* | | |
| 1 Are you currently registered to vote? | 0=No; 1=Yes | 0.63 |
| 2 Did you vote in the most recent 2006 elections? | 0=No; 1=Yes | |
| 3 Do you think you will vote in the 2008 presidential elections? | 1=No; 2=Not sure; 3=Yes | |
| **Decision-Making Skills** (Attitude) *provides the respondent's report of his/her ability to make sound decisions and judgments.* | | |
| 1 Agreement with I take responsibility for my own actions. | 1=Strongly disagree – 5=Strongly agree | 0.73 |
| 2 Agreement with I set long term goals for myself. | 1=Strongly disagree – 5=Strongly agree | |
| 3 Agreement with I am confident about my ability to lead. | 1=Strongly disagree – 5=Strongly agree | |
| 4 Agreement with I achieve anything I set out to do. | 1=Strongly disagree – 5=Strongly agree | |
| 5 Agreement with I know how to plan projects. | 1=Strongly disagree – 5=Strongly agree | |
| 6 Agreement with I feel comfortable talking in front of groups. | 1=Strongly disagree – 5=Strongly agree | |

## Exhibit B.2
## Constructs, Corresponding Survey Items, and Cronbach's Alpha

| | Constructs and Corresponding Survey Items | Unit of Measurement | Cronbach's Alpha Statistic (from 18-month follow-up survey) |
|---|---|---|---|
| **Appreciation of Cultural and Ethnic Diversity** (Attitude) *represents the respondent's opinions about the importance and desirability of relationships between people who do not share the same cultural and/or ethnic background.* | | | |
| 1 | Agreement with diverse viewpoints bring creativity and energy to a work group. | 1=Strongly disagree – 5=Strongly agree | 0.76 |
| 2 | Agreement with multicultural teams can be stimulating and fun. | 1=Strongly disagree – 5=Strongly agree | |
| 3 | Agreement with people are motivated and productive when they feel accepted for who they are. | 1=Strongly disagree – 5=Strongly agree | |
| 4 | Agreement with diversity improves the work of organizations. | 1=Strongly disagree – 5=Strongly agree | |
| 5 | Agreement with diversity brings many perspectives to problem-solving. | 1=Strongly disagree – 5=Strongly agree | |
| 6 | Agreement with I am comfortable interacting with people from a different racial or ethnic background. | 1=Strongly disagree – 5=Strongly agree | |
| **Risky Behaviors** (Behavior) *represents the respondent's engagement in petty crime, theft, physically violent behavior, or gambling. (NOT MEASURED AT BASELINE)* | | | |
| 1 | In the last year, have you ever intentionally damaged or destroyed property that did not belong to you? | 0=No; 1=Yes | 0.67 |
| 2 | In the last year, have you ever gotten into a fight at school or work? | 0=No; 1=Yes | |
| 3 | In the last year, have you ever hurt someone badly enough to need bandages or a doctor? | 0=No; 1=Yes | |
| 4 | In the last year, have you ever taken something from a store without paying for it? | 0=No; 1=Yes | |
| 5 | In the last year, have you ever other than from a store, taken something not belonging to you? | 0=No; 1=Yes | |
| 6 | In the last year, have you ever knowingly sold or held stolen goods? | 0=No; 1=Yes | |
| 7 | In the last year, have you ever used force to get money or things from someone else? | 0=No; 1=Yes | |
| 8 | In the last year, have you ever hit or seriously threatened to hit someone? | 0=No; 1=Yes | |
| 9 | In the last year, have you ever taken a vehicle without the owner's permission? | 0=No; 1=Yes | |
| 10 | In the last year, have you ever broken into a building or vehicle to steal something or to just look around? | 0=No; 1=Yes | |
| 11 | In the last year, have you ever helped in a gambling operation, like running numbers or books? | 0=No; 1=Yes | |
| 12 | In the last year, have you ever attacked someone with the idea of seriously hurting of killing them? | 0=No; 1=Yes | |

# Appendix C: Details on Subgroup Analyses

This evaluation includes an extensive set of subgroup analyses for different groups of corps participants. Two questions motivated these analyses. First, because the 1996 random assignment study of the Conservation and Youth Service Corps (Jastrzab et al. 1996) found significant beneficial treatment effects for several outcomes for subgroups defined by race and ethnicity and gender, the current study examines impacts for those subgroups. The second question was whether there was evidence of particularly beneficial effects for any of several subgroups that were deemed to be of interest to the Corporation. The subgroups are listed in Exhibit C.1. Some of these subgroups were selected because of particular policy interest in disadvantaged groups. Other subgroups were selected because, given the nature of the program, one might expect to see differences in impacts (e.g., applied to youth corps as a full-time rather than as a part-time participant).

It is expected that many statistically significant results will be found by chance due to the large numbers of subgroups and outcomes, which result in a large number of statistical tests. Currently, the evaluation field lacks a clear consensus on an adequate approach to deal with the problem of the potential for spurious findings when many subgroup analyses are performed for many outcome measures. Methods that attempt to formally control the type I error rate (i.e., limit the number of spurious test results) do so with the cost of loss of power to detect patterns of findings that might suggest future directions of inquiry. For the current subgroup analyses, the study team adopted an approach that is more oriented towards allowing opportunities to observe patterns of results in subgroups, and less oriented toward formally controlling the type I error rate. Thus, when a pattern of results is observed that suggests that there is particular benefit (or harm) from youth corps participation for a particular subgroup, one must view the results as exploratory rather than confirmatory. Exploratory results are appropriately used to generate hypotheses and to guide future and ongoing research, but should not be the basis for policy decisions. With the approach used, when no pattern is found that suggests particular benefit (or harm) for a particular subgroup, one can be reasonably confident that an approach that formally controls the type I error rate would likewise have found no evidence of particular benefit (or harm).

The subgroup analyses involved a two-phase testing strategy. The research team first tested whether the impacts varied between the levels of a subgroup. For example, the study team tested whether the impact of youth corps on a respondent's personal annual income was equivalent for males and females. These tests address the question "do impacts vary with the characteristics of the participants?" To answer this question, for each subgroup the study team tested for an interaction between being in the treatment or control group and being in a particular subgroup level. For details on the models specifications, see Appendix A.

When the interaction test indicated that impacts varied across the levels of a subgroup, the study team next conducted analyses to estimate impacts within each of the levels of each subgroup. For example, when a test indicated that the impacts of youth corps on personal income were significantly different for male and females, the study team then conducted separate tests to determine whether there was a significant impact for males, and whether there was a significant impact for females. These tests address the question "does youth corps have an impact for a particular type of participant (e.g., males)?" For these types of tests the model is the same as that used in the full sample analysis, except that analysis was conducted on specific subsets of the full sample defined by respondent characteristics.

The subgroup analysis strategy adopted results in a large number of statistical tests. So that a small number of favorable subgroup findings do not overly influence the interpretation of the results, the research team adopted a two-step strategy. First, all results for each subgroup analysis are summarized in a single table, including unfavorable findings and insignificant estimates. Second, in describing the significant subgroup findings, the number of significant subgroup findings that one would find purely by chance is indicated, and then it is determined whether the number of significant findings exceeds that number. In these ways, readers will be discouraged from drawing on a small number of favorable subgroup findings to make claims about program effectiveness that are not supported by the weight of the evidence.

**Exhibit C.1**
**Subgroups Included in the Analysis**

| Subgroup | Levels |
|---|---|
| Race and ethnicity | African American, Hispanic, White |
| Gender | Male, Female |
| Race/Ethnicity and Gender | African American Male, Female<br>Hispanic Male, Female<br>White Male, Female |
| Baseline education level | Less than HS, HS/GED, More than HS/GED |
| Disadvantaged growing up | Yes, No |
| Disadvantaged now (within the 12 months prior to the baseline survey) | Yes, No |
| Full-time youth corps program | Yes, No |
| Age < 22 years | Yes, No |
| Joined youth corps for education/employment | Yes, No |
| Joined youth corps for service | Yes, No |

Note: All subgroups were defined based on characteristics measured at baseline.

# Subgroups: Race and Ethnicity

The 1996 random assignment study of the Conservation and Youth Service Corps (Jastrzab et al. 1996) reported significant beneficial treatment effects for several outcomes for African Americans and Hispanics. Across all outcome domains the study team conducted 55 tests for interactions between treatment and race/ethnicity; for this number of tests, the expected number of tests that would be significant by chance is 2.75. Three significant interactions were found (Exhibit C.2). The results for the three race/ethnicity subgroups indicate that:

- There was no evidence that youth corps was especially beneficial for African Americans.
  - In the employment, education, and earnings domains, there were no significant treatment effects for African Americans.
  - In the civic engagement and life skills domains, the estimated impact of youth corps on social trust for African Americans was negative and statistically significant.
- There were no significant impacts for Hispanics.
- For whites, there was no consistent pattern of impacts.
  - For one outcome (respondent discussed going to college or vocational school with anyone in the prior 12 months) the impact favored the treatment group, for another outcome (respondent worked in a regular job in the prior 12 months) the impact favored the control group.

**Exhibit C.2**

**Subgroup: Race/Ethnicity—Summary of Subgroup Analyses**

| Impact Varies by Subgroup[a] | Subgroup Levels | Positive and Significant Impact | No Significant Impact | Negative and Significant Impact |
|---|---|---|---|---|
| **Education, Employment, and Earnings Domains (23 outcomes tested)** | | | | |
| In the past 12 months, respondent has discussed going to college or vocational schools with anyone | African American | | X | |
| | Hispanic | | X | |
| | White | X | | |
| Respondent worked in a regular job in the last 12 months | African American | | X | |
| | Hispanic | | X | |
| | White | | | X |
| **Civic Engagement and Life Skills Domains (22 outcomes tested)** | | | | |
| Social Trust (α=0.60) | African American | | | X |
| | Hispanic | | X | |
| | White | | X | |
| **Reduction in Risky Behaviors Domain (10 outcomes tested)** | | | | |
| None | African American | | | |
| | Hispanic | | | |
| | White | | | |

*Source*: Baseline, 18-month follow-up, and 30-month follow-up surveys.

For a full list of all outcomes in the education, employment and earnings domains, see Exhibits 3.1, 3.5 and 3.7.
For a full list of all outcomes in the civic engagement and life skills domains, see Exhibits 3.1 and 3.11.
For a full list of all outcomes in the reduction in the risky behaviors domain, see Exhibit 3.12.

[a] Outcomes where there was significant variation of treatment impacts between subgroups are shown in this column.

*Table reads:* The treatment impact on the probability that a respondent had discussed going to college or vocational schools with anyone varied significantly among the racial/ethnic subgroups ($p<0.05$). Among whites, there was a positive impact of treatment on this outcome. Among African Americans and Hispanics, there were no significant treatment effects on this outcome.

# Subgroups: Gender

Across all outcome domains the study team conducted 55 tests for interactions between treatment and gender; therefore, the expected number of tests that would be significant by chance is 2.75. The number of significant interactions found was 3 (Exhibit C.3). For the three outcomes where the interaction test showed significant differences between the impacts for males and females, estimates of the impacts within each subgroup indicate that:

- There were significant impacts on hourly wages and income for males, but not for females.
- For males, there was one outcome in the risky behaviors domain indicating that, among those who had ever had more five or more alcoholic drinks in one sitting in the 30 days prior to the 18-month follow-up interview, the number of days that that behavior had occurred was greater in the treatment group than the control group.

The main analyses reported in Chapter 3 showed significant impacts of youth corps treatment on measures of earnings, income, number of employers, and ability to make ends meet. In the subgroup analyses, there was significant variation in treatment impacts between males and females on two of those measures. The impacts on hourly wages and income were larger for males than females, and were positive and significantly different than zero for males, but not for females. Given that the overall number of tests indicating significant interactions between gender and treatment was close to what would be expected by chance, there is only weak evidence that youth corps treatment may be more beneficial to the economic well being of males than females.

## Exhibit C.3
## Subgroup: Gender—Summary of Subgroup Analyses

| Impact Varies by Subgroup[a] | Subgroup Levels | Positive and Significant Impact | No Significant Impact | Negative and Significant Impact |
|---|---|---|---|---|
| **Education, Employment, and Earnings Domains (23 outcomes tested)** | | | | |
| Among those who worked for pay in the last 12 months, amount respondent was paid per hour in his/her regular job[b] | Male | X | | |
| | Female | | X | |
| Respondent's total personal income in the last year | Male | X | | |
| | Female | | X | |
| **Civic Engagement and Life Skills Domains (22 outcomes tested)** | | | | |
| None | Male | | | |
| | Female | | | |
| **Reduction in Risky Behaviors Domain (10 outcomes tested)** | | | | |
| Among those that drank in past 30 days, number of days that respondent had 5 or more drinks of wine, beer, or liquor during the past 30 days (fewer is better)[c] | Male | X | | |
| | Female | | X | |

*Source*: Baseline, 18-month follow-up, and 30-month follow-up surveys.

For a full list of all outcomes in the education, employment and earnings domains, see Exhibits 3.1, 3.5 and 3.7.
For a full list of all outcomes in the civic engagement and life skills domains, see Exhibits 3.1 and 3.11.
For a full list of all outcomes in the reduction in the risky behaviors domain, see Exhibit 3.12.

[a] Outcomes where there was significant variation of treatment impacts between subgroups are shown in this column.

[b] This item was only asked of those who had worked for pay in the prior 12 months. These outcomes were constructed from survey items that asked about all the places respondents had ever worked for at least two consecutive weeks, and the outcomes were constructed to be restricted to the prior 12 months. Youth corps treatment group members were instructed to not include work in youth corps in their responses to these items. Because whether or not a sample member was working for pay at follow-up is endogenously determined—that is, it may not have been affected by youth corps—the impact reported here is not a true experimental impact estimate.

[c] This item was only asked of those who had had 5 or more drinks in one sitting in the prior 30 days (at 18 months after random assignment). Because whether or not a sample member having 5 or more drinks in one sitting is endogenously determined, the impact reported here is not a true experimental impact estimate.

*Table reads:* The treatment impact on the amount a respondent was paid per hour in his/her regular job varied significantly between males and females ($p<0.05$). Among males there was a positive impact of treatment on this outcome. Among females there were no significant treatment effects on this outcome.

# Subgroups: Race and Ethnicity and Gender

The 1996 random assignment study of the Conservation and Youth Service Corps (Jastrzab et al. 1996) reported significant beneficial treatment effects for African American males on measures of personal and social responsibility, receipt of an associate's degree, and educational aspirations. That study also reported decreased pregnancy among unmarried African American females, and positive impacts on White females on the attainment of an associate's degree, educational aspirations, and reduced use of alcohol. The 1996 study reported significant negative impacts for white males on average monthly earnings and current employment.

The positive impacts reported in the 1996 study for African American males, African American females, and white females were not replicated in the current study. The results provide no evidence that youth corps was particularly beneficial for those subgroups (Exhibit C.4). Nor were the negative impacts reported in the 1996 study for white males replicated in the current study. In the current study, there was a significant positive impact on hourly wages for white males (Exhibit C.4).

**Exhibit C.4**

**Subgroup: Race/Ethnicity and Gender—Summary of Subgroup Analyses**

| Impact Varies by Subgroup[a] | Subgroup Levels | Positive and Significant Impact | No Significant Impact | Negative and Significant Impact |
|---|---|---|---|---|
| **Education, Employment, and Earnings Domains (23 outcomes tested)** | | | | |
| Respondent plans to continue education in the future | African American Male | | | X |
| | African American Female | | X | |
| | Hispanic Male | | X | |
| | Hispanic Female | | X | |
| | White Male | | X | |
| | White Female | | X | |
| Among those who had worked for pay in past 12 months: Amount respondent was paid per hour in his/her regular job[b, c] | African American Male | | X | |
| | African American Female | | X | |
| | Hispanic Male | | X | |
| | Hispanic Female | | X | |
| | White Male | X | | |
| | White Female | | X | |
| Respondent would like to be working 2 years from now | African American Male | | X | |
| | African American Female | | | X |
| | Hispanic Male | X | | |
| | Hispanic Female | | X | |
| | White Male | | | X |
| | White Female | | X | |
| **Civic Engagement and Life Skills Domains (22 outcomes tested)** | | | | |
| Social Trust (α=0.60) | African American Male | | X | |
| | African American Female | | | X |
| | Hispanic Male | | X | |
| | Hispanic Female | | X | |
| | White Male | | X | |
| | White Female | | X | |
| **Reduction in Risky Behaviors Domain (10 outcomes tested)** | | | | |
| None | | | | |

*Source*: Baseline, 18-month follow-up, and 30-month follow-up surveys.

For a full list of all outcomes in the education, employment and earnings domains, see Exhibits 3.1, 3.5 and 3.7.
For a full list of all outcomes in the civic engagement and life skills domains, see Exhibit 3.11.
For a full list of all outcomes in the reduction in the risky behaviors domain, see Exhibits 3.1 and 3.12.

[a] Outcomes where there was significant variation of treatment impacts between subgroups are shown in this column.

[b] This item was only asked of those who had worked for pay in the prior 12 months. Because working for pay is endogenously determined, the impact reported here is not a true experimental impact estimate,

[c] The hourly rate was calculated as a weighted average over all jobs in the prior 12 months. Wages were weighted by the number of hours worked at each job.

*Table reads:* The treatment impact on the probability that a respondent had discussed going to college or vocational schools with anyone varied significantly among the racial/ethnic subgroups ($p<0.05$). Among whites, there was a positive impact of treatment on this outcome. Among African Americans and Hispanics, there were no significant treatment effects on this outcome.

# Subgroups: Baseline Education Level

Across all outcome domains, the study team conducted 55 tests for interactions between treatment and baseline education level. For this number of tests, the expected number of tests that would be significant by chance is 2.75. The number of significant interactions found was 3 (Exhibit C.5). There was significant variation across education levels of treatment impacts on personal annual income, ability to make ends meet, and the likelihood of having worked in a regular job in the 12 months prior to the 18-month follow-up survey. The results for the baseline education level subgroups indicate that:

- For those with less than a high school diploma, results were mixed.
  - A significant positive impact was found on personal annual income.
  - A significant negative impact was found on ability to make ends meet.
- For those with a high school diploma or GED, results were positive for two outcomes.
  - A significant positive impact was found on personal annual income.
  - A significant positive impact was found on ability to make ends meet.
- For those with some college or above, the impact was negative for one outcome.
  - A significant negative impact was found on having worked in a regular job in the 12 months prior to the 18-month follow-up survey.

While these results are suggestive of a general pattern of more positive treatment effects on income and earnings for program applicants with lower education levels, the mixed results for those without a high school diploma or GED, and the lack of significant impacts for a greater number of measures of economic well-being, caution the reader that it is not a clear or consistent pattern.

## Exhibit C.5

## Subgroup: Baseline Education Level—Summary of Subgroup Analyses

| Impact Varies by Subgroup[a] | Subgroup Levels | Positive and Significant Impact | No Significant Impact | Negative and Significant Impact |
|---|---|---|---|---|
| **Education, Employment, and Earnings Domains (23 outcomes tested)** | | | | |
| Respondent's total personal income in the last year | Less than HS | X | | |
| | HS Diploma/GED | X | | |
| | More than a HS Diploma/GED | | X | |
| At the end of the month, respondent usually has some money left over | Less than HS | | | X |
| | HS Diploma/GED | X | | |
| | More than a HS Diploma/GED | | X | |
| Respondent worked in a regular job in the last 12 months | Less than HS | | X | |
| | HS Diploma/GED | | X | |
| | More than a HS Diploma/GED | | | X |
| **Civic Engagement and Life Skills Domains (22 outcomes tested)** | | | | |
| None | Less than HS | | | |
| | HS Diploma/GED | | | |
| | More than a HS Diploma/GED | | | |
| **Reduction in Risky Behaviors Domain (10 outcomes tested)** | | | | |
| None | Less than HS | | | |
| | HS Diploma/GED | | | |
| | More than a HS Diploma/GED | | | |

*Source*: Baseline, 18-month follow-up, and 30-month follow-up surveys.

For a full list of all outcomes in the education, employment and earnings domains, see Exhibits 3.1, 3.5 and 3.7.
For a full list of all outcomes in the civic engagement and life skills domains, see Exhibits 3.1 and 3.11.
For a full list of all outcomes in the reduction in the risky behaviors domain, see Exhibit 3.12.

[a] Outcomes where there was significant variation of treatment impacts between subgroups are shown in this column.

*Table reads:* The treatment impact on a respondent's total personal income in the last year varied significantly among the baseline education level subgroups ($p<0.05$). Among participants with less than a high school diploma and those with a high school diploma or GED there was a positive impact of treatment on this outcome. Among those with more than a high school diploma or GED there were no significant treatment effects on this outcome.

## Subgroups: Disadvantaged While Growing Up

Across all outcome domains, the study team conducted 55 tests for interactions between treatment and an indicator for whether respondents were disadvantaged while growing up.[5] There were no significant interaction effects.

## Subgroups: Disadvantaged Now

Across all outcome domains, the study team conducted 55 tests for interactions between treatment and an indicator for whether respondents were disadvantaged now (i.e., at the time of the baseline survey).[6] For this number of tests, the expected number of tests that would be significant by chance is 2.75. The number of significant interactions found was 4 (Exhibit C.6). The results for the disadvantaged and not disadvantaged subgroups indicate that:

- For the disadvantaged subgroup, there was no clear pattern of impacts.
  - There was a significant positive impact on attendance at clubs or organizational meetings.
  - There was no significant impact of treatment on the probability of having used illegal drugs in the 30 days prior to the 18-month follow-up survey, but
    - Among those who had used illegal drugs, there was a significant positive impact (i.e., the treatment group respondents had fewer average number of days when they used drugs).
- For the nondisadvantaged group,
  - There was a significant positive impact on illegal drug use (i.e., youth corps members were more likely to report having used illegal drugs in the 30 days prior to the 18-month follow-up interview).

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5 "Disadvantaged growing up" was defined by the respondent's answer to baseline survey question 59, "What government support services do you receive now, and/or did you or your family receive growing up?: a) public assistance (TANF, welfare); b) public housing/Section 8/other housing vouchers; c) foster care; d) free or reduced price school lunch; e) WIC; f) food stamps; g) social security; h) unemployment insurance, workers' compensation, disability insurance." If respondents selected any of these answers for the "services received growing up" portion of the question, then they are classified as disadvantaged while growing up. Respondents who answered the question but did not indicate receipt of any of these services while growing up are classified as not disadvantaged while growing up.

6 "Disadvantaged now" is defined by the respondent's answer to baseline survey question 14, "In the last 12 months did you have income from any of the following sources?" Respondent selecting "public assistance, welfare, or food stamps," or "unemployment insurance, workers' compensation, disability, or social security benefits," were classified as "disadvantaged at the time of the baseline survey." Respondents could also have been classified as "disadvantaged now" based upon baseline survey question 59, "What government support services do you receive now, and / or did you or your family receive growing up?: a) public assistance (TANF, welfare); b) public housing/Section 8/other housing vouchers; c) foster care; d) free or reduced price school lunch; e) WIC; f) food stamps; g) social security; h) unemployment insurance, workers' compensation, disability insurance." Respondents selecting any of these answers for the "services received now" portion of the question were classified as "disadvantaged at the time of the baseline survey."

## Exhibit C.6

## Subgroup: Disadvantaged Now (Within the 12 Months Prior to the Baseline Survey)—Summary of Subgroup Analyses

| Impact Varies by Subgroup[a] | Subgroup Levels | Positive and Significant Impact | No Significant Impact | Negative and Significant Impact |
|---|---|---|---|---|
| **Education, Employment, and Earnings Domains (23 outcomes tested)** | | | | |
| None | | | | |
| **Civic Engagement and Life Skills Domains (22 outcomes tested)** | | | | |
| In the last 12 months, how often has respondent attended any club or organizational meeting (1-Never 5-Always) | Disadvantaged Now = Yes | X | | |
| | Disadvantaged Now = No | | X | |
| **Reduction in Risky Behavior Domain (10 outcomes tested)** | | | | |
| In the past 30 days, respondent used any illegal drugs | Disadvantaged Now =Yes | | X | |
| | Disadvantaged Now =No | | | X |
| Among those who used illegal drugs, number of days that respondent used illegal drugs during the past 30 days[b] | Disadvantaged Now =Yes | X | | |
| | Disadvantaged Now =No | | X | |
| During the past 12 months, respondent ever felt so sad or hopeless almost every day for two weeks or more in a row that he/she stopped doing some usual activities | Disadvantaged Now = Yes | | X | |
| | Disadvantaged Now = No | | X | |

*Source*: Baseline, 18-month follow-up, and 30-month follow-up surveys.

For a full list of all outcomes in the education, employment and earnings domains, see Exhibits 3.1, 3.5 and 3.7.
For a full list of all outcomes in the civic engagement and life skills domains, see Exhibits 3.1 and 3.11.
For a full list of all outcomes in the reduction in the risky behaviors domain, see Exhibit 3.12.

[a] Outcomes where there was significant variation of treatment impacts between subgroups are shown in this column.

[b] This item was only asked of those who had used illegal drugs in the prior 30 days. Because the status of having used illegal drugs is endogenously determined, the impact reported here is not a true experimental impact estimate.

*Table reads:* The treatment impact on how often a respondent had attended any club or organizational meeting within the last 12 months varied significantly among the "disadvantaged now" subgroups ($p<0.05$). Among those currently disadvantaged (at the time of the baseline survey), there was a positive impact of treatment on this outcome. Among those not currently disadvantaged, there were no significant treatment effects on this outcome.

# Subgroups: Full-time vs. Part-time Applicants

Across all outcome domains, the study team conducted 55 tests for interactions between treatment and an indicator for whether respondents applied to be full-time or part-time corpsmembers.[7] For this number of tests, the expected number of tests that would be significant by chance is 2.75. The number of significant interactions found was 1 (Exhibit C.7). The results for the full-time and part-time subgroups indicate a significant positive impact on part-time applicants, in that the members of the treatment group were more likely to have been fired from a job in the 12 months prior to the 18-month follow-up survey. However, the study team would have expected more significant findings by chance, which suggests that this may be a spurious finding.

**Exhibit C.7**

**Subgroup: Full-Time Youth Corps Program—Summary of Subgroup Analyses**

| Impact Varies by Subgroup[a] | Subgroup Levels | Positive and Significant Impact | No Significant Impact | Negative and Significant Impact |
|---|---|---|---|---|
| **Education, Employment, and Earnings Domains (23 outcomes tested)** | | | | |
| Respondent has been fired from a job in the last 12 months | Full-time | | X | |
| | Part-time | X | | |
| Respondent plans to continue education in future | Full-time | | X | |
| | Part-time | | | X |
| **Civic Engagement and Life Skills Domains (22 outcomes tested)** | | | | |
| None | Full-time | | | |
| | Part-time | | | |
| **Reduction in Risky Behaviors Domain (10 outcomes tested)** | | | | |
| None | Full-time | | | |
| | Part-time | | | |

*Source*: Baseline, 18-month follow-up, and 30-month follow-up surveys.

For a full list of all outcomes in the education, employment and earnings domains, see Exhibits 3.1, 3.5 and 3.7.
For a full list of all outcomes in the civic engagement and life skills domains, see Exhibits 3.1 and 3.11.
For a full list of all outcomes in the reduction in the risky behaviors domain, see Exhibit 3.12.

[a] Outcomes where there was significant variation of treatment impacts between subgroups are shown in this column.

*Table reads:* The treatment impact on the probability that a respondent had been fired from a job in the last 12 months varied significantly among the full-time subgroups ($p<0.05$). Among part-time participants there was a positive impact of treatment on this outcome (treatment group members were more likely to have been fired). Among full-time there were no significant treatment effects on this outcome.

[7] At the time of random assignment corps identified individuals as being full-time, part-time, or reduced part-time applicants. Due to the small number of applicants classified as reduced part-time, the study team combined part-time and reduced part-time into one "part-time" group. Follow-up respondents: full-time 72 percent, part-time 28 percent.

## Subgroups: Age Groups

Across all outcome domains the study team conducted 55 tests for interactions between treatment and an indicator for whether respondents were less than 22 years old or 22 or older. There were no significant interaction effects.

## Subgroups: Applied to Youth Corps for Civic Engagement

The Corporation expressed interest in exploring whether impacts were different for those who joined for educational and employment reasons versus those who joined for service reasons. However, respondents to the baseline survey could list more than one reason for applying to youth corps, and among those who responded to the 18-month follow-up survey, 96 percent had indicated at baseline that they joined for employment or educational reasons—that is, they listed at least one of the following reasons for applying to youth corps:

- To earn an education scholarship;
- To get a high school degree/GED or equivalent;
- To gain skills for getting a better job/career;
- To get a job/earn money;
- To explore future job/education interests; and
- To have an experience that would look good on their resume.

Due to the small number who did not join for education or employment reasons, the study team did not test for differences in impacts between those who did and did not join for education or employment.

Only 30 percent of 18-month follow-up respondents, however, indicated on the baseline survey that civic engagement reasons were among their reasons for applying. That is, they listed at least one of the following reasons for applying to youth corps:

- To help other people/perform a community service;
- To learn about or work with different ethnic/cultural groups; and
- To get involved in issues.

The research team therefore created two subgroups based on whether or not the reasons for applying for youth corps included civic engagement reasons. Across all outcome domains the study team conducted 55 tests for interactions between treatment and an indicator for whether respondents applied to youth corps for civic engagement reasons. For this number of tests, the expected number of tests that would be significant by chance is 2.75. The number of significant interactions found was 2 (Exhibit C.8). The results indicate that:

- Among those who joined for civic engagement reasons:
  - There was a significant negative impact on attainment of a high school diploma or GED or above.

- There was a significant positive impact on binge drinking (i.e., treatment group members were more likely to have consumed five or more alcoholic drinks in one sitting in the 30 days prior to the 18-month follow-up interview).

**Exhibit C.8**

**Subgroup: Joined Youth Corps for Civic Engagement—Summary of Subgroup Analyses**

| Impact varies by Subgroup[a] | Subgroup Levels | Positive and Significant Impact | No Significant Impact | Negative and Significant Impact |
|---|---|---|---|---|
| **Education, Employment, and Earnings Domains (23 outcomes tested)** | | | | |
| Highest level of education respondent has attained at 30-month follow-up: HS/GED or above (vs. some high school) | Joined for Civic Engagement = Yes | | | X |
| | Joined for Civic Engagement = No | | X | |
| **Civic Engagement and Life Skills Domains (22 outcomes tested)** | | | | |
| None | | | | |
| **Reduction in Risky Behaviors Domain (10 outcomes tested)** | | | | |
| In past 30 days, respondent ever drank 5 or more drinks of wine, beer, or liquor at one time or in one sitting | Joined for Civic Engagement = Yes | X | | |
| | Joined for Civic Engagement = No | | X | |

*Source*: Baseline, 18-month follow-up, and 30-month follow-up surveys.

For a full list of all outcomes in the education, employment and earnings domains, see Exhibits 3.1, 3.5 and 3.7.
For a full list of all outcomes in the civic engagement and life skills domains, see Exhibits 3.1 and 3.11.
For a full list of all outcomes in the reduction in risky behavior, see Exhibit 3.12.

[a] Outcomes where there was significant variation of treatment impacts between subgroups are shown in this column.

*Table reads:* The treatment impact on the probability that a respondent's highest level of attained education at follow-up was HS or GED varied significantly among the joined for service subgroups ($p<0.05$). Among participants who joined for service there was a negative impact of treatment on this outcome. Among those who did not join for service there were no significant treatment effects on this outcome.

# Appendix D: Rules for Assigning Entry and Exit Date

In order to conduct the exploratory analyses on dosage described in Chapter 6, it was necessary to create a measure of time spent in the youth corps program. Although participants were asked to provide their program entry and exit dates on the 18-month follow-up survey, inspection of respondents' answers proved that these items were subject to recall error, and many responses were implausible. For example, some respondents provided an entry date that was prior to their random assignment date. Therefore, the study team, along with the Corporation and The Corps Network, determined rules for assigning entry and exit dates to participants that would yield plausible program participation dates and lengths.

***Entry date.*** Each participant was asked to provide his/her entry date on 18-month follow-up survey question #1 (Q1). However, after review of the data, it was found that this item was subject to considerable error. For those with unrealistic dates, their entry date was either prior to their random assignment date (which would not be possible under the design of this study), or their entry date was more than 12 months after random assignment. It was decided via conversations with the Corporation and The Corps Network that a program entry date more than 12 months after random assignment was not likely, and therefore that the respondent most likely misreported their year of entry. In order to correct these discrepancies the study team corrected the entry dates based upon the following rules:[8]

1. If Q1 was missing, the study team used the random assignment date as the entry date.
2. If the Q1 date was prior to the random assignment date, the study team used the random assignment date as the entry date.
3. If the Q1 date was 0 to 11 months after the random assignment date, the study team used the Q1 date.
4. For those where the Q1 date was more than 12 months after the random assignment date, the study team assumed that the wrong year was given in Q1, so the study team subtracted 1 year and used that as the entry date.

***End date.*** Each participant was asked to provide his/her end date on 18-month follow-up survey question #2 (Q2). Each participant's end date was created based upon whether he/she was still enrolled in the program, left before completing, or completed service (this information also came from 18-month follow-up question #2). The following rules were utilized in order to create the best possible measure of program end date:

1. For those participants still enrolled in their first term in youth corps (2% of the 18-month follow-up sample), end date is their 18-month follow-up survey date. The follow-up survey date is used for these respondents because their outcomes can only be attributed to the length of time they had spent in youth corps up to the point when they completed the 18-month follow-up survey.
2. For those participants who completed their first term and enrolled in a second term (5% of the 18-month follow-up sample), end date is the date they completed their first term with youth corps

[8] The study team decided not to simply use the random assignment date as the entry date because in many corps participants were randomly assigned well before they began participation in the program.

(Q2a2). The first term end date is used because only first terms of service are pertinent to this study, and that is what the respondent was instructed to consider when completing the survey.

3. For those participants who left before completing (41% of the 18-month follow-up sample), end date is the date they left youth corps (Q2b).
4. For those participants who completed their service (36% of the 18-month follow-up sample), end date is the date they completed their first term with youth corps (Q2c).
5. Participants who did not answer 18-month follow-up survey question #2 are excluded from this analysis (16% of the 18-month follow-up sample).

***Months from entry to end.*** Months from entry to exit was calculated as a subtraction of entry date from end date, divided by the average number of days per month in order to put the measure into months:

Months in Program = (EndDate – Entrydate)/30.42

After calculating the number of months of program participation, 6 percent of the sample was found to have an end date prior to their entry date. For these participants the study team assumed that the year on their end date was incorrect and thus added 12 months to the measure of months from entry to end. So, for instance, if a participant had -3 months from entry to end, the study team added 12 to this measure and their final number of months from entry to end became 9.

# Appendix E: AmeriCorps Status Analyses

## Determining AmeriCorps Status: Data Sources

The study team utilized four sources of information in order to determine the AmeriCorps status of each treatment group member. The four sources used are:

1. Record matches from the Corporation's eSPAN data base.
2. Record matches from The Corps Network's data.
3. The 18-month follow-up survey question "Did you qualify to receive an AmeriCorps education award?" hereafter referred to as "Q4."
4. Corps-level information on the AmeriCorps status of the members, hereafter referred to as "Corps AmeriCorps Status." Via phone calls to the corps, the study team gave each corps one of the following labels:
   - At least some members were AmeriCorps-stipended (received both AmeriCorps stipend and Segal AmeriCorps Education Award);
   - At least some members were EAP (received Segal AmeriCorps Education Award only);
   - At least some members were AmeriCorps-stipended or EAP; or
   - No members were AmeriCorps-stipended or EAP.

The primary (and the most relied upon) data source for making the determination of whether each individual received AmeriCorps funding support was the Corporations' eSPAN data base, where receipts of AmeriCorps awards are recorded. The study team first matched the person names, corps names, and the random assignment dates of treatment group members to records in the eSPAN data base. Of the 1,055 treatment group members who responded to the 18-month follow-up survey, the study team identified 504 in eSPAN as having received an AmeriCorps stipend or a Segal AmeriCorps Education Award. eSPAN was the primary data source because the study team and the Corporation have a high degree of trust in this data base; therefore, if a study participant was found in this data base, and his/her record indicated AmeriCorps funding, then one can be confident that this respondent received AmeriCorps funding. However, because matching names in databases is not a precise method of matching (as people change their names, and use different spellings and variants on their names at different times), the study team used additional data sources to determine AmeriCorps status, as described below.

The second (and the second most relied upon) data source was a listing of individuals who had received AmeriCorps support that was provided by The Corps Network. Via this data source, the study team identified 12 additional treatment group members who had not been found in eSPAN who had received AmeriCorps support (in the form of Segal AmeriCorps Education Awards) and had completed the 18-month follow-up survey. The Corps Network's data is the second most relied upon data source because the study team had confidence that if participants were found in this data base then they truly did receive the Segal AmeriCorps Education Award. However, the study team was unsure if all participants who received the Segal AmeriCorps Education Award would be listed in this data source.

The third and fourth (and last relied upon) data sources were (1) survey responses to an item on the 18-month follow-up survey that asked "did you qualify for an AmeriCorps education award?" and (2) corps-level information about whether corps had most, any, or no members who were supported by AmeriCorps

funding. While responses to the survey question were accurate for some respondents, there were also some respondents who did not know the answer to the question, and some who were in corps where there was no opportunity to obtain such an award who had responded affirmatively to the question. Therefore, by itself, the response to this item did not appear to be a reliable indicator of receipt of AmeriCorps support. The study team therefore combined the information from this survey item with the corps-level AmeriCorps information. This corps-level information was obtained via phone calls to the corps that were made after the study team obtained the baseline survey data. Through these two data sources, a combined indicator of AmeriCorps funding support was created that was utilized in conjunction with the indicators obtained from the eSPAN data base and The Corps Network data to assign a "final" AmeriCorps status. This "final" AmeriCorps status was used in the AmeriCorps analyses described later in this appendix and in Chapter 7 of the report.

# Determining AmeriCorps Status: Assigning Status

The study team investigated whether an individual received AmeriCorps funding support, and the level of that support (hereafter referred to as "AmeriCorps status"), for all treatment group members in the 18-month follow-up sample (n=1,055). A participant could have had one of three types of AmeriCorps support:

1. Full AmeriCorps funding wherein the participant's stipend is paid for with AmeriCorps monies and wherein the participant is eligible for a Segal AmeriCorps Education Award ("AmeriCorps-stipended");
2. Receipt of a Segal AmeriCorps Education Award only with no other type of AmeriCorps funding ("EAP") or;
3. No AmeriCorps support ("non-AmeriCorps").

The level of AmeriCorps support was determined for 989 participants. The 66 participants for whom AmeriCorps status could not be reliably determined were excluded from the AmeriCorps analysis. Additionally, AmeriCorps status could not be determined for control group members because the study team was unable to identify at the time of application who would be eligible for a Segal AmeriCorps Education Award, nor could the study team identify who would have received full AmeriCorps funding.

The decision chart depicted in Exhibit E.1 provides a graphic representation of how AmeriCorps status was determined using the four items described above. In summary:

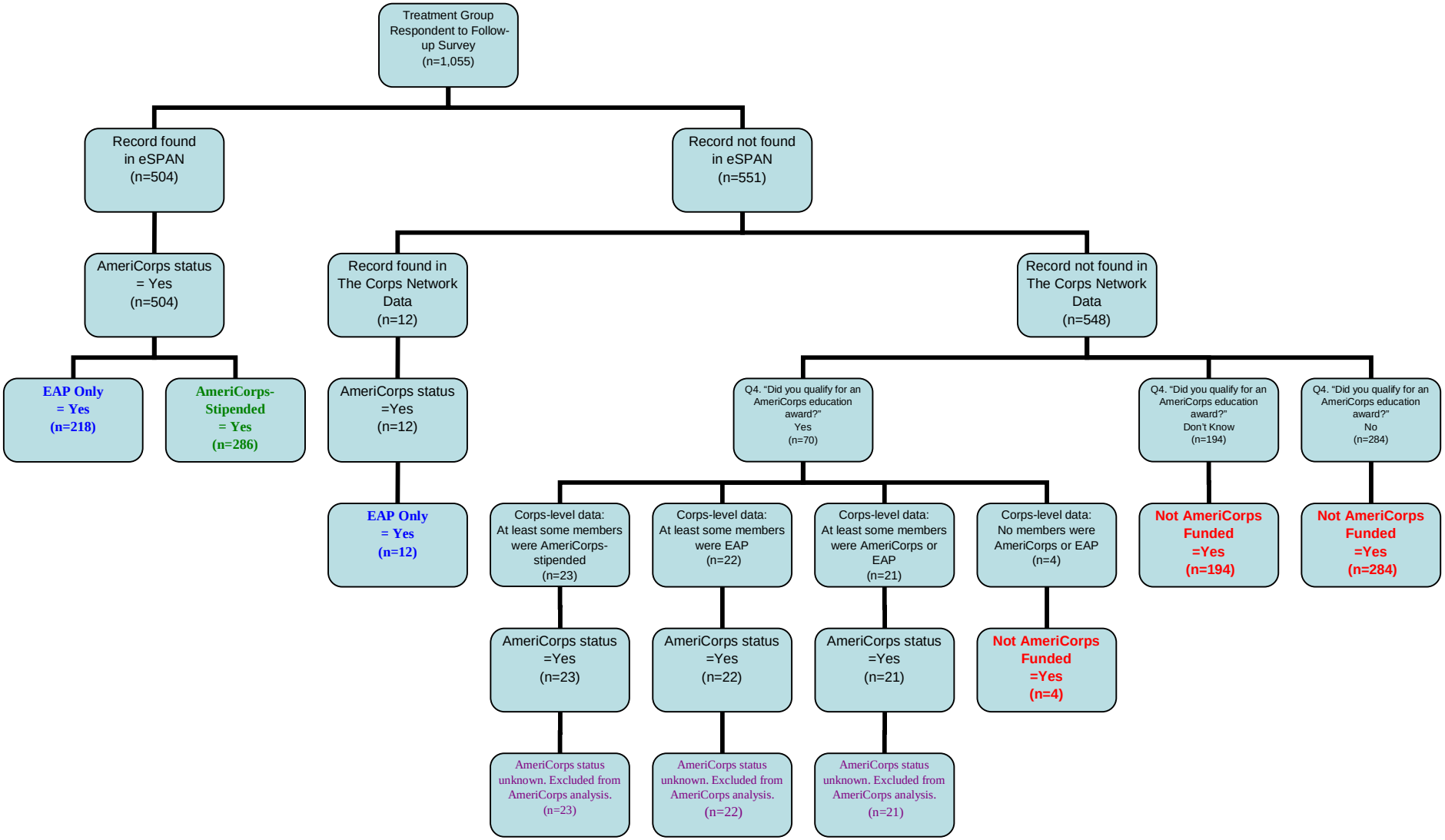
1. If a record was found in eSPAN and the dates of the youth corps program matched the dates of the program in eSPAN, then either AmeriCorps-stipended=Yes or EAP=Yes, depending on the level of AmeriCorps support indicated in eSPAN. (Recall that the eSPAN data was the primary data source for determining AmeriCorps status.)
2. If a record was not found in eSPAN, then the study team relied upon the following sources and rules to determine AmeriCorps status (recall that the study team determined that eSPAN could not be the only source of AmeriCorps status information because the method of matching participants is not precise):
   a. If the record was found in The Corps Network's data, and the record indicated EAP funding, then EAP=Yes (only EAP awards are in The Corps Network's data).

b. If the record was not found in The Corps Network's data, then the study team utilized Q4 and Corps AmeriCorps Status. The following rules were applied:
   i. If Q4 is "No" then non-AmeriCorps=Yes.
   ii. If Q4 is "Don't know" then non-AmeriCorps=Yes.
   iii. If Q4 is "Yes" and Corps AmeriCorps Status is "no members were AmeriCorps or EAP," then non-AmeriCorps=Yes.[9]
   iv. If Q4 is "Yes" and Corps AmeriCorps Status is (1) "at least some members were AmeriCorps-stipended," (2) "at least some members were EAP," or (3) "at least some members were AmeriCorps or EAP," then AmeriCorps status could not be determined and the record was excluded from the AmeriCorps analysis. The record was excluded because the level of the AmeriCorps funding (EAP vs. AmeriCorps-stipended) could not be determined.

After applying these rules, the study team identified 286 treatment group respondents to the 18-month follow-up survey who were AmeriCorps-stipended, 230 treatment group respondents who were eligible for a Segal AmeriCorps Education Award only, 473 treatment group respondents who did not receive any form of AmeriCorps funding, and 66 treatment group respondents for whom AmeriCorps status could not be determined.

[9] Although the participants indicated on the follow-up survey that they qualified to receive an AmeriCorps education award (Q4), these participants were marked as non-AmeriCorps corpsmembers because they were not identified as AmeriCorps members in the three other more reliable sources of information: (1) they were not found in eSPAN, (2) they were not found in the The Corps Network data, and (3) their corps indicated that no members received any form of AmeriCorps support. Additionally, the study team determined that responses to Q4 were not completely reliable and it is possible that respondents did not understand what qualified as an AmeriCorps education award.

## Exhibit E.1: Decision Chart for Classifying Individuals as AmeriCorps Funding = AmeriCorps-Stipended; EAP Only; or Not AmeriCorps-Funded




Definitions of AmeriCorps funding:

1. AmeriCorps-Stipended = full AmeriCorps funding wherein the participant's stipend is paid for with AmeriCorps monies and the participant is eligible for the Segal AmeriCorps Education Award.
2. EAP Only = receipt of a Segal AmeriCorps Education Award only with no other type of AmeriCorps funding.
3) Not AmeriCorps-Funded = did not receive any form of AmeriCorps support.

# AmeriCorps Status Analysis Results

This section presents the complete results of the AmeriCorps status analyses. All outcomes are reported in the following tables, whereas in Chapter 7 of the report only the statistically significant outcomes are reported. Note that for the AmeriCorps status analysis, the Bonferroni correction was utilized to adjust for the multiple pair-wise comparisons between the groups (see Appendix A for more details on the AmeriCorps analyses).

**Exhibit E.2**

**Comparison of Outcomes (at Baseline) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded**

| Item | Means | | | p-Values | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | | EAP Only vs. Not AmeriCorps—Funded | | AmeriCorps-Stipended vs. EAP Only | |
| **Working or in School at Baseline** | | | | | | | | | |
| Respondent is working or in school at baseline | 74.8 | 47.1 | 43.8 | <0.003 | ** | 0.59 | | <0.003 | ** |
| **Educational Expectations and Attainment Items** | | | | | | | | | |
| Highest level of education respondent has attained at baseline | ---- | ---- | ---- | ---- | -- | ---- | -- | ---- | -- |
| HS/GED or above (vs. some high school) | 77.4 | 62.3 | 49.8 | <0.003 | ** | 0.06 | | 0.02 | |
| Some college or above | 57.1 | 25.1 | 19.0 | <0.003 | ** | 0.25 | | <0.003 | ** |
| Associate's degree or above | 34.6 | 10.0 | 8.1 | <0.003 | ** | 0.59 | | <0.003 | ** |
| Bachelor's degree or above | 32.4 | 9.1 | 6.9 | <0.003 | ** | 0.50 | | <0.003 | ** |
| Graduate degree | 0.7 | 0.0 | 0.4 | 0.54 | | 0.17 | | 0.09 | |
| Highest level of education respondent expects to complete | ---- | ---- | ---- | ---- | -- | ---- | -- | ---- | -- |
| HS/GED or above (vs. some high school) | 97.9 | 89.2 | 94.1 | 0.02 | | 0.18 | | 0.02 | |
| Some college or above | 91.0 | 71.2 | 67.1 | <0.003 | ** | 0.45 | | <0.003 | ** |
| Associate's degree or above | 82.1 | 49.9 | 45.1 | <0.003 | ** | 0.40 | | <0.003 | ** |
| Bachelor's degree or above | 73.6 | 32.3 | 26.6 | 0.00 | ** | 0.28 | | <0.003 | ** |
| Graduate degree | 46.6 | 14.0 | 16.9 | <0.003 | ** | 0.46 | | <0.003 | ** |

**Exhibit E.2**

**Comparison of Outcomes (at Baseline) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded**

| | Means | | | p-Values | | | | |
|---|---|---|---|---|---|---|---|---|
| Item | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | | EAP Only vs. Not AmeriCorps—Funded | AmeriCorps-Stipended vs. EAP Only | |
| Respondent plans to continue education in the future | 97.5 | 98.2 | 96.4 | 0.57 | | 0.24 | 0.71 | |
| In the past 12 months, respondent has discussed going to college or vocational schools with someone | 92.4 | 93.6 | 95.8 | 0.18 | | 0.45 | 0.74 | |
| Respondent would like to be attending school 2 years from now | 81.6 | 72.5 | 62.9 | <0.003 | ** | 0.05 | 0.07 | |
| **Employment and Earnings Items** | | | | | | | | |
| In the last 12 months, respondent has worked for pay | 90.1 | 92.9 | 90.3 | 0.93 | | 0.34 | 0.43 | |
| Respondent worked in a regular job in the last 12 months | 84.8 | 87.7 | 81.0 | 0.36 | | 0.08 | 0.50 | |
| Respondent has ever been promoted on a job | 43.4 | 20.1 | 25.4 | <0.003 | ** | 0.22 | <0.003 | ** |
| Among those that had worked for pay in past 12 months: Amount respondent was paid per hour in his/her regular job [a] | 9.5 | 8.2 | 8.3 | 0.05 | | 0.82 | 0.04 | |
| Respondent would like to be working 2 years from now | 61.3 | 84.0 | 84.7 | <0.003 | ** | 0.87 | <0.003 | ** |
| Among those that had worked for pay in past 12 months: Number of employers worked for in the last 12 months | 2.0 | 1.9 | 1.9 | 0.38 | | 0.95 | 0.42 | |
| Respondent has ever been fired from a job | 16.3 | 20.4 | 24.2 | 0.06 | | 0.42 | 0.39 | |

## Exhibit E.2

## Comparison of Outcomes (at Baseline) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded

| Item | Means | | | p-Values | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | | EAP Only vs. Not AmeriCorps—Funded | | AmeriCorps-Stipended vs. EAP Only | |
| Respondent participated in any job readiness training in the last 12 months | 40.5 | 23.2 | 32.0 | 0.09 | | 0.06 | | <0.003 | ** |
| Respondent's total personal income in the last year [a] | 1.9 | 1.9 | 1.9 | 0.96 | | 0.76 | | 0.70 | |
| At the end of the month, respondent usually has: | --- | --- | --- | --- | -- | --- | -- | --- | -- |
| Just enough to make ends meet or above (vs. not enough to make ends meet) | 82.5 | 69.3 | 71.3 | 0.01 | * | 0.68 | | 0.02 | |
| Some money left over | 52.3 | 39.1 | 36.3 | <0.003 | ** | 0.61 | | 0.03 | |
| Respondent would like to work in a service field (healthcare/social services/education) job in 2 years | 42.0 | 44.2 | 37.8 | 0.41 | | 0.26 | | 0.71 | |
| **Civic Engagement-Related Items** | | | | | | | | | |
| Respondent volunteered through or for an organization in the last 12 months | 67.0 | 37.6 | 34.3 | <0.003 | ** | 0.54 | | <0.003 | ** |
| Neighborhood and Civic Obligation (α=0.72) [b] | 51.3 | 49.0 | 47.4 | <0.003 | ** | 0.02 | * | 0.01 | * |
| Community-based Activism (α=0.79) [b] | 51.7 | 47.3 | 48.4 | 0.02 | | 0.44 | | 0.01 | * |
| Connection to Community (α=0.77) [b] | 51.2 | 49.3 | 49.2 | 0.03 | | 0.79 | | 0.06 | |
| Social Trust (α=0.60) | 51.5 | 49.6 | 49.0 | 0.19 | | 0.54 | | 0.45 | |
| Engagement in the Political Process (α=0.77) [b] | 52.4 | 49.5 | 48.1 | 0.04 | | 0.18 | | 0.24 | |
| Local Civic Efficacy (α=0.63) [b] | 50.2 | 51.1 | 49.1 | 0.06 | | 0.55 | | 0.04 | |

**Exhibit E.2**

**Comparison of Outcomes (at Baseline) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded**

| | Means | | | p-Values | | |
|---|---|---|---|---|---|---|
| Item | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | EAP Only vs. Not AmeriCorps—Funded | AmeriCorps-Stipended vs. EAP Only |
| Grass Roots Efficacy (α=0.65) [b] | 52.2 | 48.1 | 48.0 | <0.003 ** | 1.00 | 0.04 |
| National Voting Participation (α=0.63) [b] | 53.4 | 49.7 | 47.8 | <0.003 ** | 0.27 | 0.05 |
| Importance of Service-Oriented Career (α=0.52) [b] | 51.2 | 50.3 | 49.8 | 0.04 | 0.26 | 0.21 |
| Respondent has engaged in volunteer activities with family members | 34.8 | 37.1 | 36.1 | 0.78 | 0.86 | 0.69 |
| Respondent has volunteered and has spoken about service/volunteer experience with other volunteers/friends/relatives in past 12 months | 61.4 | 27.1 | 26.9 | <0.003 ** | 0.97 | <0.003 ** |
| Number of weeks that respondent performed volunteer activities in the last 12 months | 7.6 | 5.3 | 2.7 | <0.003 ** | 0.06 | 0.16 |
| Number of volunteer hours in past 12 months | 101.6 | 56.7 | 44.4 | 0.01 * | 0.49 | 0.06 |
| In the last 12 months, how often has respondent worked with other people in respondent's neighborhood to fix or improve something (1-Never 5-Always) | 2.4 | 2.1 | 2.3 | 0.52 | 0.14 | 0.03 |
| In the last 12 months, how often has respondent attended any public meeting where there was a discussion of community affairs (1-Never 5-Always) | 2.0 | 1.7 | 1.8 | 0.06 | 0.23 | 0.00 * |

**Exhibit E.2**

**Comparison of Outcomes (at Baseline) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded**

| Item | Means | | | p-Values | | | | |
|---|---|---|---|---|---|---|---|---|
| | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | | EAP Only vs. Not AmeriCorps—Funded | AmeriCorps-Stipended vs. EAP Only | |
| In the last 12 months, how often has respondent attended any club or organizational meeting (1-Never 5-Always) | 2.8 | 2.2 | 2.1 | <0.003 | ** | 0.36 | <0.003 | ** |
| **Life Skills-Related Outcomes** | | | | | | | | |
| Decision Making (α=0.73) [b] | 48.7 | 49.4 | 49.5 | 0.27 | | 0.92 | 0.51 | |
| Appreciation of Cultural and Ethnic Diversity (α=0.76) [b] | 54.0 | 49.8 | 50.3 | 0.01 | * | 0.50 | <0.003 | ** |
| **Risky Behavior Items** | | | | | | | | |
| Respondent has ever been arrested for any criminal offense | 9.1 | 10.3 | 18.3 | <0.003 | ** | 0.02 | 0.71 | |

*Note:* p-values are unadjusted, stars indicate significant differences after Bonferroni adjustment for all pair-wise comparisons among the AmeriCorps Stipended, EAP Only, and Not AmeriCorps Funded groups: * p< 0.05/3, ** p < 0.01/3.

[a] The hourly rate was calculated as a weighted average over all jobs in the prior 12 months. Wages were weighted by the number of hours worked at each job.

[b] Constructs were built from several survey items. They were scaled such that the control group mean and standard deviation are 50 and 10, respectively. The impact estimates can be converted to standardized effect size units by dividing by 10 (the control group standard deviation). α = Cronbach's alpha index of internal reliability.

*Table reads*: The percentage of the individuals in the AmeriCorps-Stipended group, the EAP Only group, and the Not AmeriCorps-Funded group who were working or in school at baseline was 75, 47, and 43 percent, respectively. The percentages were significantly different for the AmeriCorps-Stipended versus the Not AmeriCorps-Funded group, and the AmeriCorps-Stipended versus the EAP Only group.

**Exhibit E.3**

**Comparison of Outcomes (at 18-Month Follow-up and 30-Month Follow-up) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded**

| Item | Means | | | p-Values | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | | EAP Only vs. Not AmeriCorps—Funded | | AmeriCorps-Stipended vs. EAP Only | |
| **Working or in School at 30-Month Follow-up** | (30-month survey) | (30-month survey) | (30-month survey) | | | | | | |
| Working or in school at 30-month follow-up | 78.7 | 63.1 | 62.1 | <0.003 | ** | 0.87 | | 0.01 | * |
| **Educational Expectations and Attainment Items** | (30-month survey) | (30-month survey) | (30-month survey) | | | | | | |
| Highest level of education respondent has attained | --- | --- | --- | --- | -- | --- | -- | --- | -- |
| HS/GED or above (vs. some high school) | 94.4 | 78.3 | 74.7 | <0.003 | ** | 0.54 | | <0.003 | ** |
| Some college or above | 73.4 | 43.8 | 34.1 | <0.003 | ** | 0.12 | | <0.003 | ** |
| Associate's degree or above | 40.5 | 14.3 | 9.9 | <0.003 | ** | 0.29 | | <0.003 | ** |
| Bachelor's degree or above | 36.7 | 10.5 | 8.0 | <0.003 | ** | 0.47 | | <0.003 | ** |
| Graduate degree | 1.6 | 0.0 | 0.3 | 0.11 | | 0.17 | | 0.03 | |
| **Educational Expectations and Attainment Items** | (18-month survey) | (18-month survey) | (18-month survey) | | | | | | |
| Highest level of education respondent expects to complete | --- | --- | --- | --- | -- | --- | -- | --- | -- |
| HS/GED or above (vs. some high school) | 100.0 | 99.6 | 98.9 | 0.02 | | 0.26 | | 0.32 | |
| Some college or above | 96.8 | 93.3 | 84.7 | <0.003 | ** | 0.01 | * | 0.25 | |
| Associate's degree or above | 91.3 | 71.4 | 65.4 | <0.003 | ** | 0.25 | | <0.003 | ** |
| Bachelor's degree or above | 85.2 | 52.5 | 46.0 | 0.00 | ** | 0.25 | | <0.003 | ** |
| Graduate degree | 59.1 | 19.4 | 18.6 | <0.003 | ** | 0.86 | | <0.003 | ** |

**Exhibit E.3**

**Comparison of Outcomes (at 18-Month Follow-up and 30-Month Follow-up) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded**

| Item | Means | | | p-Values | | |
|---|---|---|---|---|---|---|
| | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | EAP Only vs. Not AmeriCorps—Funded | AmeriCorps-Stipended vs. EAP Only |
| Respondent plans to continue education in the future | 93.0 | 95.5 | 92.9 | 0.95 | 0.22 | 0.35 |
| In the past 12 months, respondent has discussed going to college or vocational schools with someone | 76.8 | 76.6 | 60.5 | <0.003 ** | <0.003 ** | 0.97 |
| Respondent would like to be attending school 2 years from now | 60.9 | 52.7 | 51.7 | 0.07 | 0.86 | 0.16 |
| **Employment and Earnings Items** | (18-month survey) | (18-month survey) | (18-month survey) | | | |
| In the last 12 months, respondent has worked for pay | 89.6 | 77.0 | 82.5 | 0.05 | 0.27 | 0.01 * |
| Respondent worked in a regular job in the last 12 months | 87.9 | 68.9 | 80.0 | 0.04 | 0.04 | <0.003 ** |
| Respondent has ever been promoted on a job | 32.0 | 22.6 | 17.8 | <0.003 ** | 0.24 | 0.06 |
| Among those that had worked for pay in past 12 months: Amount respondent was paid per hour in his/her regular job [a] | 11.2 | 10.9 | 11.4 | 0.68 | 0.52 | 0.72 |
| Respondent would like to be working 2 years from now | 66.0 | 73.7 | 80.5 | <0.003 ** | 0.13 | 0.15 |
| Among those that had worked for pay in past 12 months: Number of employers worked for in the last 12 months | 1.4 | 1.3 | 1.4 | 0.24 | 0.47 | 0.07 |
| Respondent has ever been fired from a job in the last 12 months | 7.1 | 10.2 | 14.6 | 0.01 * | 0.12 | 0.24 |

**Exhibit E.3**

**Comparison of Outcomes (at 18-Month Follow-up and 30-Month Follow-up) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded**

| Item | Means | | | p-Values | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | | EAP Only vs. Not AmeriCorps—Funded | | AmeriCorps-Stipended vs. EAP Only | |
| Respondent participated in any job readiness training in the last 12 months | 25.2 | 20.4 | 20.6 | 0.31 | | 0.96 | | 0.32 | |
| Respondent's total personal income in the last year [a] | 11388.0 | 10167.0 | 8687.0 | 0.00 | * | 0.17 | | 0.22 | |
| At the end of the month, respondent usually has: | --- | --- | --- | --- | -- | --- | -- | --- | -- |
| Just enough to make ends meet or above (vs. not enough to make ends meet) | 86.4 | 77.2 | 77.6 | 0.02 | | 0.92 | | 0.06 | |
| Some money left over | 47.9 | 36.3 | 28.0 | <0.003 | ** | 0.11 | | 0.04 | |
| Respondent would like to work in a service field (healthcare/social services/education) job in 2 years | 47.8 | 51.1 | 37.7 | 0.05 | | 0.02 | * | 0.58 | |
| **Civic Engagement-Related Items** | (18-month survey) | (18-month survey) | (18-month survey) | | | | | | |
| Respondent volunteered through or for an organization in the last 12 months | 62.3 | 42.2 | 40.3 | <0.003 | ** | 0.73 | | <0.003 | ** |
| Neighborhood and Civic Obligation (α=0.72) [b] | 50.5 | 49.1 | 47.9 | <0.003 | ** | 0.04 | | 0.07 | |
| Community-based Activism (α=0.79) [b] | 51.7 | 48.9 | 48.0 | <0.003 | ** | 0.20 | | 0.01 | * |
| Connection to Community (α=0.77) [b] | 51.6 | 49.5 | 49.2 | 0.01 | * | 0.64 | | 0.06 | |
| Social Trust (α=0.60) [b] | 52.6 | 48.4 | 48.6 | <0.003 | ** | 0.89 | | 0.05 | |
| Engagement in the Political Process (α=0.77) [b] | 52.0 | 47.6 | 48.3 | 0.10 | | 0.67 | | 0.06 | |
| Local Civic Efficacy (α=0.63) [b] | 48.1 | 49.0 | 49.2 | 0.05 | | 0.85 | | 0.24 | |
| Grass Roots Efficacy (α=0.65) [b] | 51.6 | 49.3 | 47.7 | <0.003 | ** | 0.06 | | 0.01 | * |
| National Voting Participation (α=0.63) [b] | 51.9 | 48.8 | 48.1 | 0.06 | | 0.70 | | 0.14 | |
| Importance of Service-Oriented Career (α=0.52) [b] | 49.3 | 50.4 | 50.2 | 0.41 | | 0.68 | | 0.37 | |

**Exhibit E.3**

**Comparison of Outcomes (at 18-Month Follow-up and 30-Month Follow-up) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded**

| Item | Means | | | p-Values | | |
|---|---|---|---|---|---|---|
| | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | EAP Only vs. Not AmeriCorps—Funded | AmeriCorps-Stipended vs. EAP Only |
| Respondent has engaged in volunteer activities with family members | 36.9 | 24.2 | 21.1 | <0.003 ** | 0.49 | 0.02 |
| Respondent has volunteered and has spoken about service/volunteer experience with other volunteers/friends/relatives in past 12 months | 53.8 | 30.2 | 29.4 | <0.003 ** | 0.87 | <0.003 ** |
| Number of weeks that respondent performed volunteer activities in the last 12 months | 7.3 | 4.7 | 5.0 | 0.10 | 0.84 | 0.09 |
| Number of volunteer hours in past 12 months | 102.0 | 65.5 | 59.5 | 0.07 | 0.83 | 0.24 |
| Respondent has asked friends, parents, children, or other family members to volunteer with him/her in any activities in the last 12 months | 38.0 | 22.9 | 21.7 | <0.003 ** | 0.79 | 0.00 * |
| In past 12 months, friends, parents, children, or other family members have volunteered with respondent because respondent asked | 33.2 | 18.2 | 18.0 | <0.003 ** | 0.96 | 0.00 * |
| In the last 12 months, how often has respondent worked with other people in respondent's neighborhood to fix or improve something (1-Never 5-Always) | 2.3 | 2.1 | 2.1 | 0.10 | 0.68 | 0.29 |
| In the last 12 months, how often has respondent attended any public meeting where there was a discussion of community affairs (1-Never 5-Always) | 2.0 | 1.7 | 1.6 | <0.003 ** | 0.36 | 0.03 |
| In the last 12 months, how often has respondent attended any club or organizational meeting (1-Never 5-Always) | 2.2 | 2.1 | 1.8 | <0.003 ** | 0.04 | 0.49 |

**Exhibit E.3**

**Comparison of Outcomes (at 18-Month Follow-up and 30-Month Follow-up) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded**

| Item | Means | | | p-Values | | |
|---|---|---|---|---|---|---|
| | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | EAP Only vs. Not AmeriCorps—Funded | AmeriCorps-Stipended vs. EAP Only |
| **Life Skills-Related Outcomes** | (18-month survey) | (18-month survey) | (18-month survey) | | | |
| Decision Making (α=0.73) [b] | 48.8 | 50.6 | 49.5 | 0.26 | 0.29 | 0.13 |
| Appreciation of Cultural and Ethnic Diversity (α=0.76) [b] | 52.3 | 49.9 | 50.9 | 0.37 | 0.56 | 0.18 |
| **Risky Behavior Items** | (18-month survey) | (18-month survey) | (18-month survey) | | | |
| Risky Behaviors (α=0.67) [b] | 48.8 | 49.1 | 49.7 | 0.17 | 0.35 | 0.70 |
| Respondent's level of satisfaction with his/her life as a whole nowadays (on a scale of 1 to 10) [c] | 7.8 | 7.7 | 7.4 | 0.03 | 0.27 | 0.38 |
| In the past 30 days, respondent ever drank five or more drinks of wine, beer, or liquor at one time or in one sitting [c] | 35.8 | 31.7 | 29.9 | 0.20 | 0.71 | 0.44 |
| Among those that drank in past 30 days, number of days that respondent had five or more drinks of wine, beer, or liquor during the past 30 days [c] | 4.8 | 5.4 | 5.7 | 0.27 | 0.72 | 0.50 |
| In the past 30 days, respondent used any illegal drugs [c] | 19.5 | 11.1 | 12.8 | 0.08 | 0.60 | 0.04 |
| Among those that used illegal drugs, number of days that respondent used illegal drugs during the past 30 days [c] | 9.6 | 7.7 | 12.1 | 0.36 | 0.11 | 0.48 |
| Respondent has ever been arrested for any criminal offense | 3.8 | 5.4 | 8.9 | 0.02 * | 0.13 | 0.48 |
| Respondent has ever been arrested for any criminal offense | 0.4 | 1.1 | 3.9 | <0.003 ** | 0.01 * | 0.28 |

## Exhibit E.3

## Comparison of Outcomes (at 18-Month Follow-up and 30-Month Follow-up) between Participants Who Were AmeriCorps-Stipended, Participants Who Received the Education Award (EAP) Only, and Participants Who Were Not AmeriCorps-Funded

| Item | Means | | | p-Values | | |
|---|---|---|---|---|---|---|
| | AmeriCorps-Stipended | EAP Only | Not AmeriCorps-Funded | AmeriCorps-Stipended vs. Not AmeriCorps-Funded | EAP Only vs. Not AmeriCorps—Funded | AmeriCorps-Stipended vs. EAP Only |
| In the past 12 months, number of days respondent was incarcerated [c] | 1.1 | 1.3 | 7.0 | <0.003 ** | <0.003 ** | 0.89 |
| During the past 12 months, respondent ever felt so sad or hopeless almost every day for two weeks or more in a row that he/she stopped doing some usual activities [c] | 9.0 | 19.2 | 19.5 | <0.003 ** | 0.95 | 0.01 * |
| During the past 12 months, respondent ever seriously considered suicide [c] | 2.1 | 5.7 | 3.1 | 0.35 | 0.21 | 0.07 |

*Note:* p-values are unadjusted, stars indicate significant differences after Bonferroni adjustment for all pair-wise comparisons among the AmeriCorps Stipended, EAP Only, and Not AmeriCorps Funded groups: * p< 0.05/3, ** p < 0.01/3.

[a] The hourly rate was calculated as a weighted average over all jobs in the prior 12 months. Wages were weighted by the number of hours worked at each job.

[b] Constructs were built from several survey items. They were scaled such that the control group mean and standard deviation are 50 and 10, respectively. The impact estimates can be converted to standardized effect size units by dividing by 10 (the control group standard deviation). α = Cronbach's alpha index of internal reliability.

[c] Item was asked at 18-month follow-up only.

*Table reads:* The percentage of the individuals in the AmeriCorps-Stipended group, the EAP Only group, and the Not AmeriCorps-Funded groups who were working or in school at 18-month follow-up was 79, 63, and 62 percent, respectively. The percentages were significantly different for the AmeriCorps-Stipended versus the Not AmeriCorps-Funded group, and the AmeriCorps-Stipended versus the EAP Only group.

# Appendix F: Summary of Results from the 1996 Youth Corps Evaluation

The following list presents the summary of results from the 1996 youth corps evaluation (Jastrzab et al. 1996). This table was taken directly from pages 19 to 20 of that report. This table only reports on the results from the 1996 evaluation that drove some of the subgroup analyses conducted in the current study.

## Impacts on Young Men

### African-American men:

- ***Scored significantly higher on measures of personal and social responsibility.*** Members of the treatment group had scores at follow-up that averaged nearly 8 percent above controls on the community involvement subscale, and over 6 percent above controls on the overall Personal and Social Responsibility scale.
- ***Were more likely to have voted in the last election.*** Participants were more than four times as likely to have voted than their counterparts in the control group (22% of participants had voted, compared with only 4% of controls).
- ***Experienced more employment and had higher earnings.*** Treatment group members were almost half again as likely as control group members to have worked for pay during the follow-up period (91% versus 62%), and both the total hours worked and average monthly earnings were over one and a half times as large in the treatment group compared with controls (participants worked over 1,810 total hours on average and had monthly earnings that averaged $705). These impacts include work as corpsmembers.
- ***Were more likely to have earned an associate's degree.*** Nearly 4 percent of African-American men in the treatment group earned an associate's degree, while none of the control group earned the degree.
- ***Had higher educational aspirations.*** Almost two-thirds of the treatment group indicated they would like to graduate from college, compared to less than 40 percent in the control group.
- ***Were less likely to report a good relationship with people at work besides their supervisor.*** For those employed at time of follow-up, only 80 percent indicated they had very good or pretty good relationships with co-workers, compared with 95 percent of the controls. This may simply reflect higher standards for workplace relationships based on the supportive relationships participants encountered with their fellow corpsmembers.

### Hispanic men:

- ***Worked more total hours since program enrollment.*** Participants worked nearly 900 hours more than their control group counterparts, who worked 1,450 hours.
- ***Were more likely to receive a promotion at the current job.*** Over a third of the participants received a promotion at the current job, as compared with 19 percent of the controls.

### White males:

- ***Were less likely to be employed at follow-up.*** About two-thirds as many treatment group members as control group members were employed at follow-up (59% versus nearly 90%).
- ***Had lower monthly earnings.*** Participants' monthly earnings (including months with no earnings) averaged $875 over the follow-up period, whereas the control group averaged $1,238. However, both groups of white males earned considerably more than their counterparts in other subgroups.
- ***Had less perceived control over work outcomes.*** Treatment group members had scores that were 8 percent below the scores of control group members, on a measure of the control of work outcomes.

## Impacts on Young Women

### African-American women:

- ***Were more likely to have worked for pay during the follow-up period.*** Almost 90 percent of the participants had worked since program enrollment, as compared with just over 60 percent of controls.
- ***Were more likely to have received an award at their current job.*** Of those currently working, nearly 35 percent of treatment group members had received an award at their job, as compared with only 9 percent of the controls.
- ***Who were unmarried were less likely to be pregnant at follow-up*** (6% of the treatment group versus 21% of controls).

### Hispanic women:

- Were much more likely than control group members to have worked for pay since program enrollment (91% of the treatment group versus 53% of the controls).
- Were more likely to have higher educational aspirations. Nearly two-thirds indicated they would like to graduate from a 4-year college or attend graduate school, compared to 61 percent of controls.
- Were less likely to receive a raise at their current job (no treatment group members compared with 40% of controls). It should be noted, however, that at follow-up, participants may not have been in their post-corps job long enough to be eligible for a raise.

### White women:

- ***Were more likely to have earned an associate's degree.*** Over a quarter of participants earned the degree, compared with no controls. At random assignment white women were more likely to already have a GED or high school diploma than individuals in other subgroups, so their attainment of an associate's degree during the follow-up period may have been more feasible.
- ***Were more likely to expect to graduate from a 4-year college or attend graduate school*** (90% of treatment group members compared with less than 60% of controls).
- ***Were much less likely to have consumed five or more alcoholic drinks in one sitting during the previous month*** (3% of treatment group members versus 32% of controls).

# Appendix G: Unemployment Insurance (UI) Data Collection Effort

In order to supplement the analyses on wage and earnings impacts, Abt Associates attempted to collect Unemployment Insurance record data on treatment and control group members. In order to maximize effort and success, Abt focused on collecting data from eight states, which covered 87 percent of the baseline study sample. However, this effort was largely unsuccessful and no administrative data were used in the analyses.

The Unemployment Insurance (UI) program is a joint federal-state program to provide cash payments to the short-term unemployed. Eligibility and the size of the cash payment vary with recent work experience. To assess eligibility and to compute the appropriate payment, all states require (almost all of their) employers to file quarterly reports on earnings for each of their employees. For the last decade, these data have been the standard source for earnings data in training and welfare evaluations.

However, increasing concerns about privacy caused many states to substantially restrict access to these data for evaluation purposes. As a result, Abt Associates had limited success in getting access to state UI data for the Youth Corps Evaluation. Three states provided UI data that included identifiers (both name and SSN), and Abt was able to successfully match them to the survey data. The remaining states could not provide UI data that included identifiers which would allow the matching of UI data to the survey data. Examples include Pennsylvania, which had specifically written into its data agreement that it would not provide identifiers, and Maryland, which was unable to provide data due to budgetary issues. At the time of UI data collection, California had recently enacted a state statute that requires written permission from each person for whom UI data is requested, dated within 30 days of the request. This statute effectively ended any pursuit of the California UI data as the study team was unable to obtain such consent without additional burden.

Given that many states (with large sample sizes) could not provide relevant data, Abt Associates and the Corporation agreed to abandon this effort.

# Appendix H: Attrition Analyses

The analyses in this appendix were motivated by concern about the potential effects on the impact results of high and differential attrition rates for treatment and control group members for the 30-month survey. Response rates to the 30-month survey were relatively low and differed between the two groups—66 percent for the treatment group and 57 percent for the control group. Response rates were higher and were more equal between groups for the 18-month survey—78 percent for the treatment group and 71 percent for the control group. To address this concern, the study team explored the extent to which missing data led to baseline imbalances in the analysis samples, took steps to reduce potential attrition bias, and conducted sensitivity analyses to assess the likely extent of any attrition bias in 30-month impact estimates.

**Baseline differences between the groups among follow-up survey respondents.** In the evaluation, the study team found a significant difference between survey respondents in the treatment and control groups in the proportion that were working or in school at baseline. Exhibit 2.3 of the report shows that for respondents to the 18-month follow-up survey, treatment group members were less likely to be employed or in school at the time of the baseline survey (50.0%) than were control group members (59.6%). Exhibit H.1 shows that for the full randomized sample, the percentages that were working or in school at baseline were 50.1 percent and 55.7 percent for treatment and control groups, respectively. This difference of 5.6 percentage points was not statistically significant. In the 18-month follow-up survey sample, the gap between treatment and control group members was 9.6 percentage points and statistically significant. For the 30-month sample, the gap was 8.5 percentage points and was, again, statistically significant (Exhibit H.1). Therefore, nonresponse to the 18-month and 30-month surveys appears to have resulted in analysis samples with larger differences between treatment and control groups on the proportion that were *working or in school* at baseline, than the difference between the groups at randomization.

**Steps to reduce attrition bias.** To reduce the attrition bias, the analysis models that estimate impacts included the baseline measure of *working or in school* as a control covariate. Controlling for preintervention status of the outcome measures allowed us to statistically adjust for baseline differences that would otherwise bias the impact estimates. Finally, survey respondents were assigned poststratification weights to protect against attrition bias.

**Exhibit H.1**

**Comparison of Baseline Measure of Working or in School for Original Randomized Sample, 18-month Follow-up Sample, and 30-month Follow-up Sample**

| Baseline Item | Treatment Group Percent Yes | Control Group Percent Yes | p-value [a] | |
|---|---|---|---|---|
| Respondent was working or in school at baseline (randomized sample) [b] | 50.1% | 55.7% | 0.12 | |
| Respondent was working or in school at baseline (18-month sample) [c] | 50.0% | 59.6% | 0.01 | * |
| Respondent is working or in school at baseline (30-month sample) [d] | 51.5% | 60.0% | 0.03 | * |

*Source*: Baseline survey.

*Note:* Means and percentages are weighted to reflect probability of selection, and poststratification and nonresponse adjustments; * p<0.05.

[a] The p-value is for the test of the null hypothesis that the treatment and control groups are equivalent at baseline.

[b] This group includes 1,357 treatment group and 686 control group members.

[c] The group includes the respondents to the 18-month survey and includes individuals that did not complete the survey because they were incarcerated (working or in school at 18 months set to 0=no), and individuals that did not complete the survey because they were deployed in the military (working or in school at 18 months set to 1=yes). Total sample includes 1,092 treatment and 513 control group members.

[d] This group included the respondents to the 30-month survey and includes individuals that did not complete the survey because they were incarcerated (working or in school at 30 months set to 0=no), and individuals that did not complete the survey because they were deployed in the military (working or in school at 30 months set to 1=yes). Total sample includes 935 treatment and 414 control group members.

*Table reads*: For the full group of individuals that were randomized to treatment or control conditions, at baseline, 50.1 percent of treatment group respondents were working or in school, while 55.7 percent of control group respondents were working or in school. Statistical tests indicate that the two groups were not significantly different on this item at baseline (p-value=0.12).

**Sensitivity analysis to assess the extent of attrition bias.** In order to assess the potential effects of differential attrition on the impact estimates, the study team conducted a set of sensitivity analyses. This attrition raised the question of whether the impacts on key outcomes from the 30-month survey suffer from high levels of attrition bias.

To address this question, the study team conducted a sensitivity analyses. This analysis used outcomes measured at 18 months to assess differences between the results for individuals that responded to the 30-month survey versus nonrespondents to the 30-month survey. The motivation for these analyses is that the effect of 30-month attrition on the impacts measured at 18 months (where attrition effects can be estimated) will serve as a proxy for the effect of 30-month attrition on the impacts measured at 30 months (where attrition effects cannot be estimated).

The two key outcome measures that were based on responses to the 30-month survey were *respondent is currently working or in school (at 30 months)* and *highest level of educational attainment (at 30 months)*. For these sensitivity analyses the study team first constructed similar outcome measures based on responses to the 18-month survey. These outcomes are *respondent is currently working or in school (at*

*18 months),* and *highest level of educational attainment (at 18 months)*. Using the two 18-month outcomes, the study team conducted tests for whether the estimated impacts for 30-month survey respondents were different than the estimated impacts for 30-month survey nonrespondents. By necessity, the analysis was restricted to the sample members who responded to the 18-month follow-up survey. If a significant difference in the impacts for these two subgroups is found, one would treat this as evidence of nonresponse bias from excluding 30-month survey nonrespondents from the analysis.

In order to conduct these tests, a dummy variable was created to identify nonrespondents to the 30-month survey. This variable was coded "1" if the individual did not respond to the 30-month survey and "0" if the individual did respond to the 30-month survey. A model was estimated that included a term for the interaction between the dummy variable for nonrespondents and the treatment dummy. In this model the coefficient for the main effect of treatment represents the estimated impact on the 18-month outcome for the individuals that responded to the 30-month survey, and the interaction term represents the difference between the impacts for the 30-month survey respondents and 30-month survey nonrespondents. The test of whether the coefficient on the interaction term is different from zero is a test for whether the impacts differed between the two groups. A significant result on this test would suggest that omitting nonrespondents from the analysis biases the impact estimates.

The results shown in Exhibit H.2 indicate no statistically significant differences between the impact estimates of nonrespondents and respondents for these outcome measures. These results suggest that there is no convincing evidence that nonresponse to the 30-month survey has biased the impact estimates. The results, however, do not rule out the possibility of nonresponse bias. Because the size of the nonresponder group is small relative to the responder group (see notes to Exhibit H.2), the analyses described here have relatively low power to detect meaningful differences between the groups. Furthermore, nonresponse to both the 18-month and 30-month surveys, which was not assessed in these analyses, has the potential to bias results. The lower nonresponse to the 18-month survey, however, implies less opportunity for nonresponse bias to affect the impact estimates.

Another approach to dealing with attrition at the 30-month survey would have been to define all of the key outcomes based on 18-month survey results (where there was lower attrition). The problem with this approach was that prior to analysis, the study team investigators from Abt Associates, the Corporation for National and Community Service, and The Corps Network agreed that the 18-month survey was too early to expect to see impacts on the outcomes *working or in school* or on *educational attainment.* The investigators, however, expected that youth corps would have impacts on those outcomes by the time of the 30-month survey. In order to satisfy the curiosity of readers who would like to know the estimated impact on these outcomes measured at 18 months, where there is less risk of nonresponse bias, impact analysis results are presented in Exhibit H.3. The results indicate that for 18-month survey respondents, there were no significant impacts on the outcomes *working or in school* and *educational attainment* measured at 18 months.

**Exhibit H.2**

**Sensitivity Analysis: Tests for Whether Impacts on Outcomes Measured at 18 Months Are Different for Nonrespondents to 30-Month Survey**

| | Respondents [a] | | | Difference: Nonrespondents vs. Respondents [b] | | |
|---|---|---|---|---|---|---|
| Item | Coefficient | Standard Error | p-value [c] | Coefficient [b] | Standard Error | p-value [c] |
| **Engaged in education or employment (measured at 18 months) [d]** | | | | | | |
| Respondent is currently working or in school | 3.2% | 3.2 | 0.329 | 5.7% | 8.4 | 0.496 |
| **Highest level of educational attainment (measured at 18 months)** | | | | | | |
| HS/GED or above (vs. some high school) | 0.3% | 1.3 | 0.807 | 2.2% | 3.1 | 0.480 |
| Some college or above | 0.3% | 2.0 | 0.861 | -4.9% | 4.5 | 0.275 |
| Associate's degree or above | 0.8% | 0.6 | 0.199 | -1.0% | 0.7 | 0.176 |
| Bachelor's degree or above | 0.8% | 0.5 | 0.123 | -1.1% | 0.6 | 0.081 |
| Graduate degree | -0.1% | 0.1 | 0.491 | 0.1% | 0.2 | 0.475 |

*Source:* Baseline, 18-month follow-up and 30-month follow-up surveys.

*Note:* Means and percentages are weighted to reflect probability of selection, and poststratification and nonresponse adjustments.

[a] Coefficient is the impact estimate for respondents to both 18-month and 30-month surveys.

[b] Coefficient is the difference between the impact estimate for nonrespondents to the 30-month survey and the respondents to both 18-month and 30-month surveys.

[c] p-values are tests of null hypothesis that coefficient is equal to zero, two-tailed test.

[d] This sample include the respondents to the 18-month survey and includes individuals that did not complete the survey because they were incarcerated (working or in school set to 0=no), and individuals that did not complete the survey because they were deployed in the military (working or in school set to 1=yes). Total sample includes 1,309 that responded to both the 18-month and 30-month surveys, and 296 nonrespondents to the 30-month survey.

[e] This sample includes 1,234 respondents to both the 18-month and 30-month surveys, and 309 nonrespondents to the 30-month survey.

**Exhibit H.3**

**Sensitivity Analyses: Impact Estimates for 18-month Outcomes for the Full Group of Respondents to the 18-Month Survey**

| Item | 18-Month Sample | |
|---|---|---|
| | ITT Treatment Effect [a] | Treatment Effect p-value [b] |
| **Key Outcome 1: Engaged in education and/or employment at 18 months** | n=1,605[c] | |
| Respondent currently working or in school (*at 18 months*) | 4.3% | 0.15 |
| **Key Outcome 2: Highest level of educational attainment at 18 months** | n=1,543 [d] | |
| HS/GED or above (vs. some high school) | 2.7% | 0.28 |
| Some college or above | -0.8% | 0.71 |
| Associate's degree or above | 0.2% | 0.90 |
| Bachelor's degree or above | -0.6% | 0.01 |
| Graduate degree | 0.1% | 0.82 |

*Source:* Baseline and 18-month follow-up surveys.

*Note:* Means and percentages are weighted to reflect probability of selection, and poststratification and nonresponse adjustments; * p<0.05.

[a] ITT (intent-to-treat) is model-estimated average impact on youth corps applicants.

[b] Treatment effect p-value is for test of null hypothesis of no treatment impact, two-tailed test.

[c] This sample include the respondents to the 18-month survey and includes individuals that did not complete the survey because they were incarcerated (working or in school set to 0=no), and individuals that did not complete the survey because they were deployed in the military (working or in school set to 1=yes). Total sample includes 1,092 treatment and 513 control group members.

[d] This sample includes respondents to the 18-month survey. Total sample includes 1,055 treatment and 488 control group members.

# Appendix I: Analyses Excluding Convenience Sample of Sites

The sample of sites was selected to be representative of a national population of 59 youth corps programs that were members of The Corps Network in 2005 and that were expected to enroll at least 50 corpsmembers that year. Of the 34 programs that were randomly selected to be included in the study, only 18 were successfully recruited to participate. A convenience sample of 3 additional sites brought the total number of study sites to 21. This appendix is focused on the question of whether the convenience sample of three sites affected the impact estimates. In order to explore this question, a data set was created that excluded the three convenience sites and impacts were estimated from this reduced data set on the three key outcomes. Exhibit I.1 displays the results from the full sample and the subset with data from the three convenience sites excluded. The results show that the exclusion of data from the three convenience sample sites does not affect the findings: the impact estimates from the two samples are very similar for all three key outcomes. There were no significant impacts on the key variables when estimated from data that either included or did not include the convenience sites.

**Exhibit I.1**

**Sensitivity Analyses: Analyses Excluding Observations from the Three Convenience Sample Sites, Impacts on Key Outcomes**

| Item | Full/Original Samples | | Samples Excluding the Convenience Sites | |
|---|---|---|---|---|
| | ITT Treatment Effect [a] | Treatment Effect p-value [b] | ITT Treatment Effect [a] | Treatment Effect p-value [b] |
| **Key Outcome 1: Engaged in Education and/or Employment** | (30-month follow-up survey n=1,349) | | (30-month follow-up survey n=1,156) | |
| Respondent currently working or in school (at 30 months) | -4.5% | 0.19 | -4.5% | 0.21 |
| **Key Outcome 2: Highest level of educational attainment (at 30 months)** | (30-month follow-up survey n=1,349) | | (30-month follow-up survey n=1,156) | |
| HS/GED or above (vs. some high school) | 3.6% | 0.18 | 3.9% | 0.16 |
| Some college or above | 2.4% | 0.40 | 2.9% | 0.33 |
| Associate's degree or above | 0.2% | 0.91 | 0.2% | 0.93 |
| Bachelor's degree or above | -0.5% | 0.76 | -0.5% | 0.78 |
| Graduate degree | -1.1% | 0.15 | -1.4% | 0.10 |
| **Key Outcome 3: Civic Engagement Item** | (18-month follow-up survey n=1,543) | | (18-month follow-up survey n=1,331) | |
| Respondent volunteered through or for an organization in the last 12 months | -1.6% | 0.66 | -2.1% | 0.58 |

*Source:* Baseline, 18-month follow-up and 30-month follow-up surveys.

*Note:* Means and percentages are weighted to reflect probability of selection, and poststratification and nonresponse adjustments; * $p<0.05$.

[a] ITT (intent-to-treat) is model-estimated average impact on youth corps applicants.

[b] Treatment effect p-value is for test of null hypothesis of no treatment impact, two-tailed test.

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