

Memorandum**To: Admission Possible****From: ICF International****Date: January 4, 2010****Re: Findings from Program Audit of 2008-09 Admission Possible Outcome Measures: ACT Score Increases and College Acceptance Rate****Introduction**

Admission Possible, a nonprofit organization helping high school students from low-income families in two Minnesota school districts achieve college readiness, recently sought a program audit to verify two key program outcome measures. The organization itself is committed to rigorous monitoring of student outcomes. But as Admission Possible expands its service area and provides assistance to larger numbers of students, its efforts will be increasingly scrutinized and will have greater implications. Rigorous, systematic evaluation of program implementation and outcomes, as a result, becomes increasingly important to ensure the organization's credibility and sustainability.

As a component of this emerging evaluation agenda, Admission Possible requested proposals from objective, third party consultants to conduct a program audit of two key outcome measures. This effort was conducted to ensure that data are accurate, complete, and reliable, and to provide assurance to stakeholders that findings are credible. ICF International was pleased to be selected to conduct the program audit for Admission Possible in August 2009.

The purpose of the program audit was to verify two key student outcome measures from the 2008-09 student cohort served by Admission Possible: 1) growth in ACT scores from pre- to posttest periods and 2) college acceptance rates¹. Admission Possible reported a 22% increase in ACT scores from pre- to posttest periods and a college acceptance rate of 98% for the 2008-09 cohort.

The purpose of this memorandum is to describe findings from the program audit conducted by ICF during September through December 2009.

Findings*ACT Score Increases*

After obtaining and cleaning ACT pre- and posttest score data for those Admission Possible students who were high school seniors during the 2008-09 academic year, ICF replicated the analyses conducted by Admission Possible staff. First, as shown in Table 1, the mean ACT pre- and posttest scores of all 2008-09 Admission Possible seniors was calculated. A total of 732 students completed an ACT pretest, with a mean score of 14.34. A total of 692 students completed a posttest, earning a mean score of 17.65. With a mean difference of 3.31 points, ACT scores increased 23% from pre- to posttest.

¹ A full description of data acquisition, cleaning, and analysis procedures is included in Appendix A.

Table 1:
Composite ACT pre- and posttest composite scores: Students with either pre- or posttest scores, or both

	N	Minimum	Maximum	Mean	Std. Deviation	Mean Difference	Percent Difference
ACT pretest composite	732	6	27	14.34	3.165	3.31	23%
ACT posttest composite	692	11	32	17.65	3.676		

However, a more precise estimate of growth in ACT scores involves the comparison of *only* those students who took *both* the pre- and the posttest. A second analysis limiting the sample to such students resulted in a sample size of 690 students. The mean ACT pretest score for this group was 14.40, and the mean posttest score was 17.63. This represents a mean increase of 3.23 points, or 22%, from pre- to posttest. Results are presented in Table 2.

Table 2:
Composite ACT pre- and posttest composite scores: Students with both pre- and posttests

	N	Minimum	Maximum	Mean	Std. Deviation	Mean Difference	Percent Difference
ACT pretest composite	690	7	27	14.40	3.160	3.23	22%
ACT posttest composite	690	11	32	17.63	3.650		

College Acceptance Rate

In September 2009, Admission Possible staff provided data to ICF on the self-reported college acceptance statuses of 2008-09 high school seniors participating in the program. ICF staff coded self-reports of acceptance and conditional acceptance to at least one of the colleges to which each student had applied as an “acceptance”. Thus, if Student A was accepted to Metropolitan University, but not to any of the other colleges to which she had applied, her status would be coded as an acceptance. If Student B received neither an acceptance nor a conditional acceptance from any college to which he applied, his status would **not** be coded as an acceptance. Admission Possible data indicated that 98%, or 605 of the total 619 students, of the 2008-09 cohort were accepted to at least one institution of higher education.

Following coding procedures, ICF then sought to verify self-reported acceptances through several methods: cross-checking with the National Student Clearinghouse (which provides an online database for verification of higher education enrollment and degree information) and college admissions offices. Further details about verification activities can be found in Appendix A.

ICF independently verified post-secondary acceptances for 577 of the 605 students reporting acceptance to at least one institution of higher education. Because of privacy concerns, however, some colleges were unwilling to release acceptance information directly to ICF. To address this circumstance without interrupting verification of the remaining acceptances, Admission Possible staff sought and received verification from school admission offices either by phone, email, or fax for the remaining students and provided such verifications to ICF.

The admission status of only 6 students could not be verified in this manner. For the purposes of the ICF college acceptance rate calculation, these 6 students were treated as *Not Accepted*.

Table 3:
College acceptance verification

Number of participating 2008-08 seniors	Number of students who applied to at least one college/university	Number of students reporting acceptance to at least one college/university	Number of students with college acceptances verified by program audit
619	612	605	606

The ICF program audit finds that 606 of the 612 students who applied to at least one college or university have, in fact, been accepted or conditionally accepted to at least one institution of higher education. This represents a college acceptance rate of 99%. Thus, the program audit fully supports the Admission Possible claim of a 98% college acceptance rate, and in fact, improves upon it.

In addition, the program audit finds that Admission Possible staff, as a means to hold themselves accountable for outcomes for all students served and to avoid overestimation of program effectiveness, calculate the college acceptance rate differently than it is conventionally calculated. Whereas Admission Possible calculates the college acceptance rate by dividing the number of students reporting acceptances by the total number of participating students (that is, 606/619, or 98%), the more conventional calculation involves dividing the number of students reporting acceptances by the number of students who applied to at least one institution of higher education (606/612, or 99%).

The program audit identified only one type of discrepancy between Admission Possible and ICF data. Five students were listed in the original Admission Possible database as either *Not Accepted* or had a status of *Unknown*; the ICF program audit has since verified that these five students were accepted by at least one of the colleges to which they had applied.

Conclusions

This program audit fully supports Admission Possible findings about the ACT score growth of students from pre- to posttest periods. The 22% score increase for students in the 2008-09 cohort reported by Admission Possible was confirmed by ICF reanalysis.

In addition, it appears that Admission Possible conducted analysis of the most appropriate grouping of students to measure growth—only those who had completed both pre- and posttests. This is also known as paired analysis and represents best practice in descriptive statistical analysis of program outcomes, particularly when the outcome of interest is growth². Moreover, paired analysis is the most robust way of grouping data should Admission Possible be interested in testing the statistical significance of increases in student achievement, and calculating effect sizes to understand the practical significance of statistically significant differences.

The program audit fully supports the Admission Possible claim of a 98% college acceptance rate. This is the case whether the college acceptance rate is calculated in terms of the total number of participating 2008-09 seniors or in terms of the number of participating 2008-09 seniors who applied to at least one college or university. For the purposes of clarity and industry convention, without sacrificing stringent accountability, ICF suggests that Admission Possible consider calculating a *college application rate* (the number of students applying to at least one college or university divided by the total number of seniors served) and a *college acceptance rate* (the number of students reporting acceptance to at least one college or university divided by the number of students who applied to postsecondary institutions).

² Glass, G.V., & Hopkins, K.D. (1984). *Statistical methods in education and psychology* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Knoke, D., & Bohrnstedt, G.W. (1994). *Statistics for social data analysis* (3rd ed.). Itasca, IL: F.E. Peacock Publishers.

The program audit identified no meaningful discrepancies in the ACT score or college acceptance data reported by Admission Possible. The program audit identified only one type of discrepancy between Admission Possible and ICF data. Five students were listed in the original Admission Possible database as either *Not Accepted* or had a status of *Unknown*; the ICF program audit verified that these five students were accepted by at least one of the colleges to which they had applied.

Appendix A: Data Cleaning and Analysis Procedures

Cleaning and analysis of the **ACT data** were conducted as follows.

Phase I: Data Cleaning. During the initial phase, ICF obtained, reviewed, and cleaned the ACT data provided by Admission Possible. The ICF team:

- Acquired access from Admission Possible staff to the Naviance database on September 3, 2009
- Acquired access from Admission Possible staff to the ACT Essay View site on September 8, 2009
- Downloaded ACT information from Naviance
- Received a master Admission Possible database of ACT pre- and posttest scores on September 14, 2009
- Cross-verified ACT scores from Naviance, ACT Essay View, and Admission Possible databases

ICF then conducted data cleaning, as follows.

- Searched for:
 - invalid or out of range values
 - duplicate cases
 - missing data
- Corrected invalid and out of range values by seeking additional information from the ACT coordinator with Admission Possible
- Confirmed (with Admission Possible staff) and deleted duplicate cases
- Sought missing data from Admission Possible staff

Phase II: Data Re-Analysis. Following the data cleaning phase, ICF conducted re-analyses of the ACT score data. Analyses of ACT data included minimum and maximum scores, means, standard deviations, and mean pre-/post-test score differentials. Findings were then compared to Admission Possible findings.

Verification of the **college acceptance data** was conducted as follows.

Phase I: Verification through the National Student Clearinghouse.

- Acquired access from Admission Possible staff to the National Student Clearinghouse on September 8, 2009.
- Accessed student information from the Naviance database and used it to search student enrollment information in the National Student Clearinghouse.
- Coded any enrollment as an acceptance into that specific college/university.
- Checked the National Student Clearinghouse several times during September and October, 2009, as schools continued to update their information.

Phase II: Verification with individual school admission offices for students not found in the Clearinghouse.

- Began contacting individual school admission offices on September 30, 2009, to inquire about the acceptance status of students not found in the National Student Clearinghouse.
- Contacted the following schools for information:
 - Augsburg College
 - Century Community and Technical College
 - Concordia University at St. Paul
 - Gustavus Adolphus College
 - Hamline University
 - Hennepin Technical College
 - Metropolitan State University
 - Minneapolis Community and Technical College
 - Minnesota State University, Mankato
 - Minnesota State University, Moorhead

- Northern State University
- Saint Paul College
- Southwest Minnesota State University
- St. Catherine University
- St. Cloud State University
- University of Minnesota, Duluth
- University of Minnesota, Twin Cities (including the College of Liberal Arts and College of Education and Human Development)
- University of St. Thomas
- Provided Admission Possible with a list of students whose acceptance statuses were unable to be verified by ICF due to privacy issues with certain schools. Admission Possible began contacting those schools and provided them with written release forms from students.
- Worked in conjunction with Admission Possible staff to keep database up-to-date regarding student acceptance status.