Appendix A.2: Research details for Castleman et al. (2014)

Castleman, B. L., Page, L. C., & Schooley, K. (2014). The forgotten summer: Does the offer of college counseling after high school mitigate summer melt among college-intending, low-income high school graduates? *Journal of Policy Analysis and Management, 33*(2), 320–344. Retrieved from https://eric.ed.gov/?id=EJ1027721

Table A2. Summary of findings

Outcome domain	Sample size	Study findings	
		Average improvement index *(percentile points)*	Statistically significant
College access and enrollment	2,373 high school graduates	+5	Yes
Credit accumulation and persistence	1,397 high school graduates	+6	Yes

Setting   The study was conducted in Boston, MA and in Fulton County Schools (FCS) in the metro Atlanta, GA area. In Boston, the counseling sessions took place primarily at the provider's (uAspire) Center for College Affordability in Boston. In Fulton County, most counseling took place over the phone rather than face-to-face.

Study sample

There were 2,373 students in the overall sample, including 886 students in the intervention group and 1,487 students in the comparison group.

In Boston, high school students who were participants in uAspire's High School Advising Program and who applied for uAspire's Last Dollar Scholarships were included in the study sample. Study authors assigned each of the 927 applicants to a team of 11 advisors, matching applicants to teams with the advisor who had worked with them before whenever possible. Study authors then randomly assigned students to the intervention group (*n* = 406) or the comparison group (*n* = 521). The intervention took place in Boston from June 27, 2011 to August 10, 2011.

In Fulton County, study authors selected six high schools with the highest estimated rates of "summer melt." Within these schools recent high school graduates were identified who indicated on the Fulton County Schools Senior Exit Survey that they (a) were planning to attend college the following fall, (b) had applied to at least one postsecondary institution, and (c) had been accepted to at least one postsecondary institution. In order to meet the researchers' target of 80 students served per school, eligibility criteria were expanded in two schools to include students waiting to hear about their acceptance. With 1,446 students identified as eligible for the study, researchers then randomly selected 80 students in each school to receive the intervention (*n* = 480) and the remaining students were assigned to the comparison group (*n* = 966). In Fulton County, the intervention took place between June 6, 2011 and July 11, 2011.

Across both sites, ethnic minority students comprised 72% of the sample (43% Black, 13% Hispanic, 10% Asian, 5% multiracial, and 2% other race/ethnicity), and 58% of the students were female. Eighty-one percent of students completed the FAFSA. Of those who completed the FAFSA in Boston, 62% had an Expected Family Contribution (EFC) of zero and another 23% had an EFC that was nonzero, but still within the range of Pell grant eligibility. In Fulton County, 37% of students qualified for free or reduced-price lunch (FRL).

Intervention group

Counselors attempted to contact each student in the intervention group via phone, email, text, and Facebook to offer support. In Fulton County, counselors were encouraged to use an intake form that outlined the tasks required for college enrollment in their initial meeting with students. Counselors who met with students in person primarily did so at the school from which they were working, but the counselors depended on phone conversations to provide most of their support. In Boston, upon reaching students, advisors offered students a $25 gift card to attend an in-person meeting. During the first in-person meeting, counselors completed a college assessment protocol that included the following elements: (1) review of the student's financial aid award letter and guidance on financial aid tailored to the amount of unmet need; (2) discussion of the calendar of summer deadlines at the college the student planned to attend, and help with understanding and completing paperwork from the college; and (3) assessment of any social or emotional barriers to college enrollment faced by the student. After the assessment, counselors and students developed a list of tasks that needed completion before starting college in the fall. Counselors followed up with students individually to check on their progress. After the initial meeting, counselors and students communicated mostly via phone, email, and text, though counselors also conducted in-person follow-up meetings with some students.

Across both sites, 52% of students had any communication with a counselor, and in Boston, 52% of students had at least one face-to-face meeting with an advisor. In Atlanta, approximately 25% of the non-FRL students had contact with a counselor, while nearly 54% of the FRL students had contact with a counselor. Authors noted that many of the counselors' interactions with students focused on issues of financial aid. Counselors also reported addressing a variety of informational questions, such as how to access a college's web portal, how to complete required paperwork, and what the college matriculation process entailed.

Comparison group

The comparison group students did not receive outreach though they were assigned to a counselor. Counselors were instructed not to deny support to any comparison group student who actively sought help. According to logs maintained by the counselors, about 1% of the comparison group students had contact with an advisor.

Outcomes and measurement

College enrollment is the primary outcome in this study. Enrollment data were obtained from the National Student Clearinghouse for the fall of 2011 (at the end of the fall semester of the student's freshman year), spring of 2012 (at the end of the spring semester of the student's freshman year), and fall of 2012 (at the end of the first semester of the student's sophomore year). The initial fall 2011 enrollment measure falls under the college access and enrollment domain, while the continued enrollment or persistence outcomes (spring 2012 and fall 2012) fall under the credit accumulation and persistence domain.

Subgroup analyses were presented for socioeconomic status subgroups, as defined by free or reduced-price lunch status for students in the Atlanta site and by expected family contribution and Pell Grant eligibility for students in the Boston site. The supplemental findings are reported in Appendix D and do not factor into the intervention's rating of effectiveness. For a more detailed description of these outcome measures, see Appendix B.

The study also examined whether students enrolled and persisted at (1) the specific institution in which they intended to enroll as of high school graduation and (2) the type of institution (i.e., 2-year vs. 4-year, public vs. private) in which they intended to enroll as of high school graduation. These outcomes focused on intentions after high school and are not eligible for review under the Transition to College protocol.

Support for implementation

In Atlanta, the study authors provided supplemental training for the counselors that focused on the federal and state financial aid application process. In Boston, the study authors provided the uAspire counselors with a protocol for their outreach activities and supplied the assessment protocol that guided the counselors' advising.

Appendix B: Outcome measures for each domain

Credit accumulation and persistence	
Continuous first-year enrollment	Continuous first-year enrollment for the fall and spring semesters was collected from the National Student Clearinghouse (as cited in Castleman et al., 2014). This measure was reported in both the Boston and Atlanta sites as a binary outcome.
Continuous enrollment into sophomore year	Continuous enrollment into sophomore year (for the first three semesters after high school) was obtained from the National Student Clearinghouse (as cited in Castleman et al., 2014). This measure was reported in both the Boston and Atlanta sites as a binary outcome.
College access and enrollment	
Enrollment	Enrollment was measured by enrollment in college in the fall semester following high school graduation (as cited in Castleman et al., 2012). Enrollment data were collected from the National Student Clearinghouse and were reported as a binary outcome.
Full-time enrollment	Full-time college enrollment was measured by enrollment as a full-time student, with part-time enrollment and no enrollment included in the denominator of this measure (as cited in Castleman et al., 2012). Full-time enrollment data were collected from the National Student Clearinghouse and were reported as a binary outcome.
Enrolled in 2-year institutions	Enrollment in a 2-year institution was measured as enrollment in a 2-year institution in the fall semester following high school graduation (as cited in Castleman et al., 2012). Enrollment data were collected from the National Student Clearinghouse and were reported as a binary outcome. This outcome is only reported as a supplemental finding.
Enrolled in 4-year institutions	Enrollment in a 4-year institution was measured as enrollment in a 4-year institution in the fall semester following high school graduation (as cited in Castleman et al., 2012). Enrollment data were collected from the National Student Clearinghouse and were reported as a binary outcome. This outcome is only reported as a supplemental finding.

Appendix C.1: Findings included in the rating for the credit accumulation and persistence domain

Outcome measure	Study sample	Sample size	Mean (standard deviation)		WWC calculations			
			Intervention group	Comparison group	Mean difference	Effect size	Improvement index	p-value
Castleman et al., 2014[a]								
Continuous first-year enrollment (%)	Full sample	1,397 students	82.4 (na)	78.5 (na)	3.9	0.15	+6	< .05
Continuous enrollment into sophomore year (%)	Full sample	1,397 students	71.3 (na)	66.3 (na)	5.0	0.14	+6	< .05
Domain average for credit accumulation and persistence (Castleman et al., 2014)						0.15	+6	**Statistically significant**
Domain average for credit accumulation and persistence across all studies						0.15	+6	na

Table Notes: For mean difference, effect size, and improvement index values reported in the table, a positive number favors the intervention group and a negative number favors the comparison group. The effect size is a standardized measure of the effect of an intervention on outcomes, representing the average change expected for all individuals who are given the intervention (measured in standard deviations of the outcome measure). The improvement index is an alternate presentation of the effect size, reflecting the change in an average individual's percentile rank that can be expected if the individual is given the intervention. WWC-computed average effect size is a simple average rounded to two decimal places; the average improvement index is calculated from the average effect size. The statistical significance of each study's domain average was determined by the WWC. Some statistics may not sum as expected due to rounding. na = not applicable.

[a] For Castleman et al. (2014), a correction for multiple comparisons was needed but did not affect whether any of the contrasts were found to be statistically significant. The WWC did not need to make corrections for clustering or to adjust for baseline differences. The p-values presented here were reported in the original study. Means for the intervention and comparison groups are covariate adjusted, and reflect the pooled Boston and Fulton samples. Findings for each site are presented in Appendix D. This study is characterized as having a statistically significant positive effect because the estimated effect is positive and statistically significant. For more information, please refer to the WWC Procedures and Standards Handbook (version 3.0), p. 26.

Appendix C.2: Findings included in the rating for the college access and enrollment domain

Outcome measure	Study sample	Sample size	Mean (standard deviation)		WWC calculations			
			Intervention group	Comparison group	Mean difference	Effect size	Improvement index	p-value
Castleman et al., 2014[b]								
Enrollment (%)	Full sample	2,373 students	86.0 (na)	82.7 (na)	3.3	0.15	+6	< .05
Domain average for college access and enrollment (Castleman et al., 2014)						0.15	+6	**Statistically significant**

Table Notes: For mean difference, effect size, and improvement index values reported in the table, a positive number favors the intervention group and a negative number favors the comparison group. The effect size is a standardized measure of the effect of an intervention on outcomes, representing the average change expected for all individuals who are given the intervention (measured in standard deviations of the outcome measure). The improvement index is an alternate presentation of the effect size, reflecting the change in an average individual's percentile rank that can be expected if the individual is given the intervention. WWC-computed average effect size is a simple average rounded to two decimal places; the average improvement index is calculated from the average effect size. The statistical significance of each study's domain average was determined by the WWC. Some statistics may not sum as expected due to rounding. na = not applicable.

[b] For Castleman et al. (2014), the WWC did not need to make corrections for clustering, multiple comparisons, or to adjust for baseline differences. The p-values presented here were reported in the original study. Means for the intervention and comparison groups are covariate adjusted, and reflect the pooled Boston and Fulton samples. Findings for each site are presented in Appendix D. This study is characterized as having a statistically significant positive effect because the estimated effect is positive and statistically significant. For more information, please refer to the WWC Procedures and Standards Handbook (version 3.0), p. 26.

Appendix D.1: Description of supplemental findings for the credit accumulation and persistence domain

Outcome measure	Study sample	Sample size	Mean (standard deviation)		WWC calculations			
			Intervention group	Comparison group	Mean difference	Effect size	Improvement index	*p*-value
Castleman et al., 2014[a]								
Continuous first-year enrollment (%)	FRL, Fulton	910 students	62.3 (na)	59.3 (na)	3.0	0.08	+3	> .10
Continuous first-year enrollment (%)	Non-FRL, Fulton	536 students	90.2 (na)	89.4 (na)	0.8	0.05	+2	> .10
Continuous enrollment into sophomore year (%)	FRL, Fulton	910 students	41.4 (na)	39.2 (na)	2.2	0.06	+2	> .10
Continuous enrollment into sophomore year (%)	Non-FRL, Fulton	536 students	83.4 (na)	80.9 (na)	2.5	0.10	+4	> .10
Continuous first-year enrollment (%)	EFC = 0, Pell eligible, Boston	487 students	86.5 (na)	72.6 (na)	13.9	0.53	+20	< .01
Continuous first-year enrollment (%)	EFC > 0, Pell eligible, Boston	177 students	88.7 (na)	85.1 (na)	3.6	0.19	+8	> .10
Continuous first-year enrollment (%)	Not Pell eligible, Boston	120 students	79.7 (na)	95.7 (na)	−16.0	−1.04	−35	< .05
Continuous enrollment into sophomore year (%)	EFC = 0, Pell eligible, Boston	487 students	77.6 (na)	64.4 (na)	13.2	0.39	+15	< .01
Continuous enrollment into sophomore year (%)	EFC > 0, Pell eligible, Boston	177 students	81.9 (na)	66.2 (na)	15.7	0.51	+19	< .05
Continuous enrollment into sophomore year (%)	Not Pell eligible, Boston	120 students	64.9 (na)	78.9 (na)	−14.0	−0.42	−16	> .10

Table Notes: The supplemental findings presented in this table are additional findings from studies in this report that meet WWC design standards with or without reservations, but do not factor into the determination of the intervention rating. For mean difference, effect size, and improvement index values reported in the table, a positive number favors the intervention group and a negative number favors the comparison group. The effect size is a standardized measure of the effect of an intervention on outcomes, representing the average change expected for all individuals who are given the intervention (measured in standard deviations of the outcome measure). The improvement index is an alternate presentation of the effect size, reflecting the change in an average individual's percentile rank that can be expected if the individual is given the intervention. Some statistics may not sum as expected due to rounding. na = not applicable. FRL = free or reduced-price lunch. EFC = expected family contribution.

[a] For Castleman et al. (2014), no corrections for clustering and no difference-in-differences adjustments were needed. A correction for multiple comparisons was needed but did not affect whether any of the contrasts were found to be statistically significant. The *p*-values presented here were reported in the original study. Means for the intervention and comparison groups are covariate adjusted. Subgroup sample sizes were obtained from an author query.

Appendix D.2: Description of supplemental findings for the college access and enrollment domain

Outcome measure	Study sample	Sample size	Mean (standard deviation)		WWC calculations			
			Intervention group	Comparison group	Mean difference	Effect size	Improvement index	*p*-value
Castleman et al., 2014[b]								
Enrollment (%)	Boston	927 students	83.0 (na)	78.4 (na)	4.6	0.18	+7	< .10
Enrollment (%)	Fulton	1,446 students	87.6 (na)	85.4 (na)	2.2	0.11	+5	> .10
Enrollment (%)	FRL, Fulton	910 students	71.9 (na)	63.4 (na)	8.5	0.24	+9	< .10
Enrollment (%)	Non-FRL, Fulton	536 students	92.6 (na)	92.8 (na)	−0.2	−.02	−1	> .10
Enrollment (%)	EFC = 0, Pell eligible, Boston	487 students	88.6 (na)	76.3 (na)	12.3	0.53	+20	< .01
Enrollment (%)	EFC > 0, Pell eligible, Boston	177 students	85.7 (na)	83.3 (na)	2.4	0.11	+4	> .10
Enrollment (%)	Not Pell eligible, Boston	120 students	83.5 (na)	94.3 (na)	−10.8	−0.71	−26	< .10

Table Notes: The supplemental findings presented in this table are additional findings from studies in this report that meet WWC design standards with or without reservations, but do not factor into the determination of the intervention rating. For mean difference, effect size, and improvement index values reported in the table, a positive number favors the intervention group and a negative number favors the comparison group. The effect size is a standardized measure of the effect of an intervention on outcomes, representing the average change expected for all individuals who are given the intervention (measured in standard deviations of the outcome measure). The improvement index is an alternate presentation of the effect size, reflecting the change in an average individual's percentile rank that can be expected if the individual is given the intervention. Some statistics may not sum as expected due to rounding. na = not applicable. FRL = free or reduced-price lunch. EFC = expected family contribution.

[b] For Castleman et al. (2014), no corrections for clustering and no difference-in-differences adjustments were needed. A correction for multiple comparisons was needed but did not affect whether any of the contrasts were found to be statistically significant. The *p*-values presented here were reported in the original study. Means for the intervention and comparison groups are covariate adjusted. Subgroup sample sizes were obtained from an author query.

Endnotes

[1] The descriptive information for this intervention comes from: Castleman et al., 2012, Castleman et al., 2014, Castleman et al., 2015a, Castleman et al., 2015b, and Castleman and Page, 2015. Further verification of the accuracy of the descriptive information for this intervention is beyond the scope of this review.

[2] The literature search reflects documents publicly available by August 2017. Reviews of the studies in this report used the standards from the WWC Procedures and Standards Handbook (version 3.0) and the Transition to College review protocol (version 3.2). The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.

[3] Please see the Transition to College review protocol (version 3.2) for a list of all outcome domains.

[4] For criteria used to determine the rating of effectiveness and extent of evidence, see the WWC Rating Criteria on p. 28. These improvement index numbers show the average and range of individual-level improvement indices for all findings across the studies.

[5] As cited in Castleman, Arnold, and Wartman (2012); Castleman, Page, and Schooley (2014); Castleman, Owen, and Page (2015a); Castleman, Owen, and Page (2015b); and Castleman and Page (2015).

Recommended Citation

What Works Clearinghouse, Institute of Education Sciences, U.S. Department of Education. (2018, March). *Transition to College intervention report: Summer Counseling*. Retrieved from https://whatworks.ed.gov