

# Post-secondary Outcomes and the Impacts of GEAR UP North Carolina from 2005 to 2012

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**Authors: Sarah C. Fuller**

**Contributors: Steven Hemelt, Thurston Domina, & Daniel Gitterman**

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# The Effect of Exposure to GEAR UP Grant 2 during High School on Post-Secondary Outcomes

## Background

The second Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) North Carolina (NC) grant which received funding from 2005 to 2012 provided services to four cohorts of students in middle and high schools in 20 districts across the state of North Carolina. The GEAR UP NC cohorts entered 7<sup>th</sup> grade between 2005-06 and 2008-09, entered high school between 2007-08 and 2010-11, and graduated between 2010-11 and 2013-14. The GEAR UP NC program followed these cohorts of students as they progressed through middle and high school until the end of the grant at the end of the 2011-12 school year. For the first two cohorts of GEAR UP students under grant 2, on-time graduates would have graduated in spring of 2011 and 2012 before the end of the grant and would, therefore, have been served through 12<sup>th</sup> grade. For the subsequent cohorts, on time graduations would occur in 2013, and 2014 following the end of the grant. As a result, these cohorts were only served by GEAR UP NC from 7<sup>th</sup> grade to 11<sup>th</sup> and 10<sup>th</sup>. Table 1 shows the years and grades in which each cohort was treated by the GEAR UP program.

**Table 1. GEAR UP and Pretreatment Cohorts**

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>7th Grade</b>	Pre Cohort 1	Pre Cohort 2	GEAR UP Cohort 1	GEAR UP Cohort 2	GEAR UP Cohort 3	GEAR UP Cohort 4					
<b>8th Grade</b>		Pre Cohort 1	Pre Cohort 2	GEAR UP Cohort 1	GEAR UP Cohort 2	GEAR UP Cohort 3	GEAR UP Cohort 4				
<b>9th Grade</b>			Pre Cohort 1	Pre Cohort 2	GEAR UP Cohort 1	GEAR UP Cohort 2	GEAR UP Cohort 3	GEAR UP Cohort 4			
<b>10th Grade</b>				Pre Cohort 1	Pre Cohort 2	GEAR UP Cohort 1	GEAR UP Cohort 2	GEAR UP Cohort 3	GEAR UP Cohort 4		
<b>11th Grade</b>					Pre Cohort 1	Pre Cohort 2	GEAR UP Cohort 1	GEAR UP Cohort 2	GEAR UP Cohort 3	GEAR UP Cohort 4	
<b>12th Grade</b>						Pre Cohort 1	Pre Cohort 2	GEAR UP Cohort 1	GEAR UP Cohort 2	GEAR UP Cohort 3	GEAR UP Cohort 4

Note: Shaded cells show years and grades in which GEAR UP treatment was received.

The GEAR UP program provided students in these cohorts with a range of services throughout their middle and high school years, including college visits, advising, and assistance with applications. However, the specifics of the program were tailored within each school and district.

The goals of the GEAR UP program are to increase access to college for students from disadvantaged schools. This study focuses on 4 cohorts of high school students who were served by the GEAR UP program in GEAR UP high schools. Some but not all of these students were also served by GEAR UP in GEAR UP middle schools. The purpose of this study is to explore the effect of attending a high school with a GEAR UP program under GEAR UP NC Grant 2 on students' higher education attainment outcomes, including enrollment, retention, and graduation from any college, two-year college, or four-year college.

## **Methods**

### *Data*

To answer these research questions, the EPIC evaluation team compiled a student-level panel dataset that follows students from the middle school years through high school and into higher education, for students who enrolled in a college or university. This panel data file draws upon data on middle and high school provided by the North Carolina Department of Public Instruction (NCDPI) from 2005-06 to 2015-16 as well as data on post-secondary enrollments provided by the National Student Clearinghouse (NSC) from 2009-10 to 2017-18. Data provided by NCDPI includes student enrollments in each grade and year, student demographics, standardized test scores, drop out, transfer, and high school graduation. Data from the NSC provides student enrollments by term and graduations with information about whether the college is a two-year or four-year institution. NSC data is only available for students who graduated from a NC public high schools between 2009 and 2016.

The data from these sources was used to construct a cohort data set that followed students from their initial ninth grade enrollment forward in time with a unique observation for each student. This data set includes six cohorts of students, the four GEAR UP NC cohorts which began ninth grade from 2007-08 to 2010-11 and two prior cohorts which began ninth grade in 2006-07 and 2007-08. For each student, the data set includes demographic information, indicators for whether they attended a GEAR UP school in middle and high school, years in a GEAR UP middle and high school, middle school standardized test scores, high school exit code, college enrollment in the 1<sup>st</sup> year post-high school, college retention in the 2<sup>nd</sup> year post-high school, college graduation by the 4<sup>th</sup> and 6<sup>th</sup> years post-high school.

There are four basic post-secondary outcome variables in this study. These variables are college enrollment in the first year post-high school, college retention in the second year post-high school, and college graduation in the fourth and sixth year post-high school. Each of these outcomes is defined for any post-secondary institution, two-year institutions only, and four-year institutions only. Enrollment is equal to one if the student is enrolled in the relevant institution during the summer, fall, or spring following high school graduation. Retention is equal to one if the student was enrolled in the first-year following graduation and in the summer, fall or spring of the second year after graduation. Graduation is equal to one if a student graduated from

college at any time between high school graduation and the fourth or sixth spring after graduation respectively.

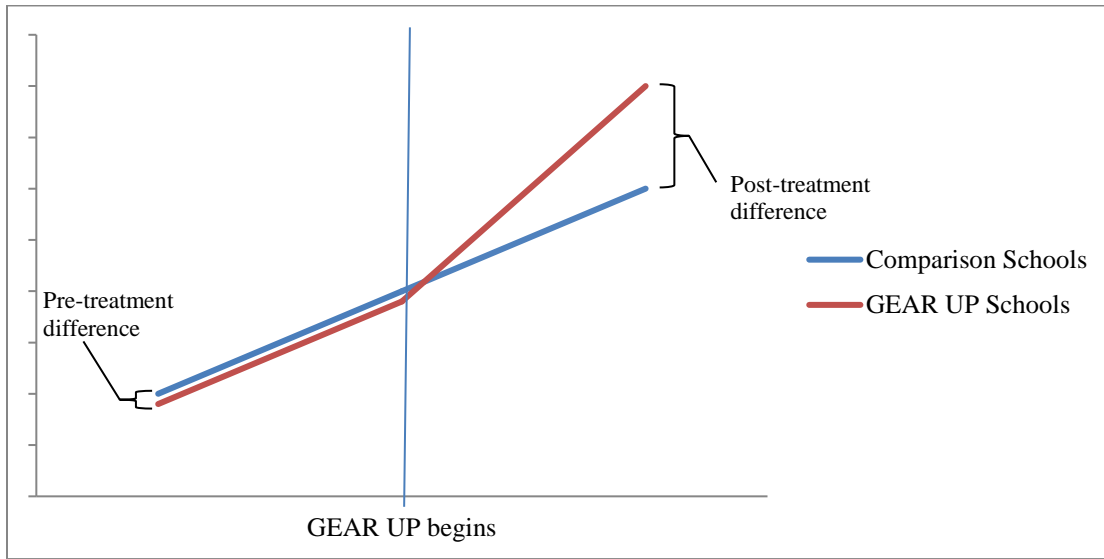
### Sample

Since the GEAR UP NC intervention involves making services available to whole cohorts of students at GEAR UP schools, all students in the relevant cohorts at GEAR UP grant 2 schools will be considered treatment students for the purpose of this study. In addition, students at GEAR UP schools in two earlier cohorts will also be included in the sample. Cohorts will be defined based on the year in which they entered 9<sup>th</sup> grade. Although students were also served in GEAR UP middle schools, 36 percent of students who entered GEAR UP high schools in ninth grade did not attend a GEAR UP middle school in eighth grade. In addition, by starting with ninth grade cohorts, we are able to include pretreatment test scores in some specifications of our models. Models also control for whether students attended GEAR UP middle schools.

### Analytical Approach

In addition to the cohorts of students served by GEAR UP NC, middle and high school data is available for two earlier cohorts of students who attended the schools served by grant 2 prior to treatment. Using data on these prior cohorts, this study uses a difference-in-difference design to estimate the effect of GEAR UP NC on student outcomes. A difference-in-difference design is a strong quasi-experimental design that under certain conditions allows for a causal estimate of the impact of the program on student outcomes. The difference-in-difference design estimates the effect of treatment through GEAR UP by comparing the magnitude of the gap in outcomes between GEAR UP schools and comparison schools for cohorts of students that were treated to the gap in outcomes between GEAR UP schools and comparison schools that existed prior to the program. If the size of the gap between the GEAR UP schools and the comparison schools has changed, the change is attributed to the GEAR UP program. Figure 1 illustrates graphically how this comparison is structured.

**Figure 1. Difference-in-Difference Illustration**



The model in this study includes student demographics, eighth grade GEAR UP school attendance, a cohort fixed effect, and a school fixed effect. In addition, some models also include eighth grade standardized test scores to control for differences in academic ability between GEAR UP students and other students prior to treatment in GEAR UP high schools.

***Comparison Schools***

For this study, we use two comparison groups. The first comparison group consists of all North Carolina students attending non-GEAR UP schools in the same years and grades as the GEAR UP treatment and pre-treatment cohorts. The second comparison group includes schools which are more similar to GEAR UP schools in terms of demographics and prior performance. This limited comparison group is created by excluding schools with a school level percent of economically disadvantaged students less than 30 percent or a school level percent of racial/ethnic minority students less than 15 percent. Table 2 shows descriptive statistics for students in GEAR UP schools and comparison students in the two comparison groups.

Compared to comparison students, students attending GEAR UP schools are more likely to be economically disadvantaged and more likely to be racial/ethnic minorities. They also have lower eighth grade test scores and lower outcomes. Students attending GEAR UP schools are more similar to the limited comparison group than the full comparison group, although the limited comparison group still consists of somewhat more advantaged students.

**Table 2. Descriptives of GEAR UP Students and Comparison Students**

	<b>GEAR UP</b>	<b>Full Comparison</b>	<b>Limited Comparison</b>
Number of Schools	24	669	490
Number of Students	25,764	607,051	416,858

<b>Demographics</b>			
Male	50.5%	51.0%	51.0%
White	41.3%	56.8%	47.3%
Black	41.4%	28.7%	36.6%
Hispanic	13.1%	8.0%	9.2%
Multiracial	2.4%	2.8%	30.0%
Asian	1.3%	2.2%	1.9%
American Indian	0.5%	1.6%	2.1%
Limited English Proficiency	7.1%	4.8%	5.6%
Academically and Intellectually Gifted	12.8%	16.4%	14.2%
Disability	13.3%	12.7%	13.3%
Economically Disadvantaged	61.6%	44.4%	52.4%
<b>Pretreatment Performance</b>			
8th Grade Math Score	-0.202	0.023	-0.120
8th Grade Reading Score	-0.222	0.024	-0.106
<b>Outcomes</b>			
First Year Enrollment	51.3%	58.2%	54.9%
First Year Enrollment - 2 Year	27.1%	26.5%	26.8%
First Year Enrollment - 4 Year	25.7%	33.4%	29.8%
Retention	40.5%	49.0%	45.2%
Retention 2 Year	18.5%	19.4%	19.2%
Retention 4 Year	21.4%	29.1%	25.4%
Graduation in 4 Years	14.0%	20.1%	16.8%
Graduation in 4 Years - 2 Year	5.0%	6.1%	5.8%
Graduation in 4 Years - 4 Year	9.2%	14.3%	11.3%
Graduation in 6 Years	22.8%	30.3%	25.1%
Graduation in 6 Years - 2 Year	7.3%	8.2%	7.6%
Graduation in 6 Years - 4 Year	16.7%	23.6%	18.7%

### Missing Outcome Data

Because NSC data is available only for students who graduated from a North Carolina high school between 2009 and 2016, some students in GEAR UP cohorts and comparison cohorts are missing outcome information. GEAR UP students are slightly more likely to have missing data than comparison students (26.2 percent compared to 23.1 percent). Looking at exit code data for those students missing NSC data shows that the majority of these students are identified as drop outs or as transfers out of the state public school system. A smaller group of students are neither dropouts nor transfers out, but did not graduate from NC public schools. Many of these students may also be drop outs, but were never positively identified as drop outs by the schools. Table 3 shows the distribution of missing NSC data between these groups.

**Table 3. Missing NSC Data**

	<b>GEAR UP</b>	<b>Comparison</b>
Missing from NCS Data	26.2%	23.1%
Drop Outs	10.0%	8.1%
Transfers	4.9%	5.8%
Other Non-graduates	3.1%	2.2%

Because we do not have data on this substantial subset of students and because there are differences between GEAR UP students and comparison students in the probability of missing NSC data, we conduct sensitivity testing to see how different assumptions about the outcomes of missing students affect the results.

The primary specification presented in the main body of this report includes drop outs with outcomes set to zero for all drop outs. While it is certainly possible for a student who dropped out of high school to eventually attend college, they are unlikely to do so on the standard schedule examined through the outcomes in this study. Therefore, the assumption that drop outs were not enrolled, retained or graduated from college is reasonable. One sensitivity test sets all dropouts to missing, including only students who graduated from high school in the analysis.

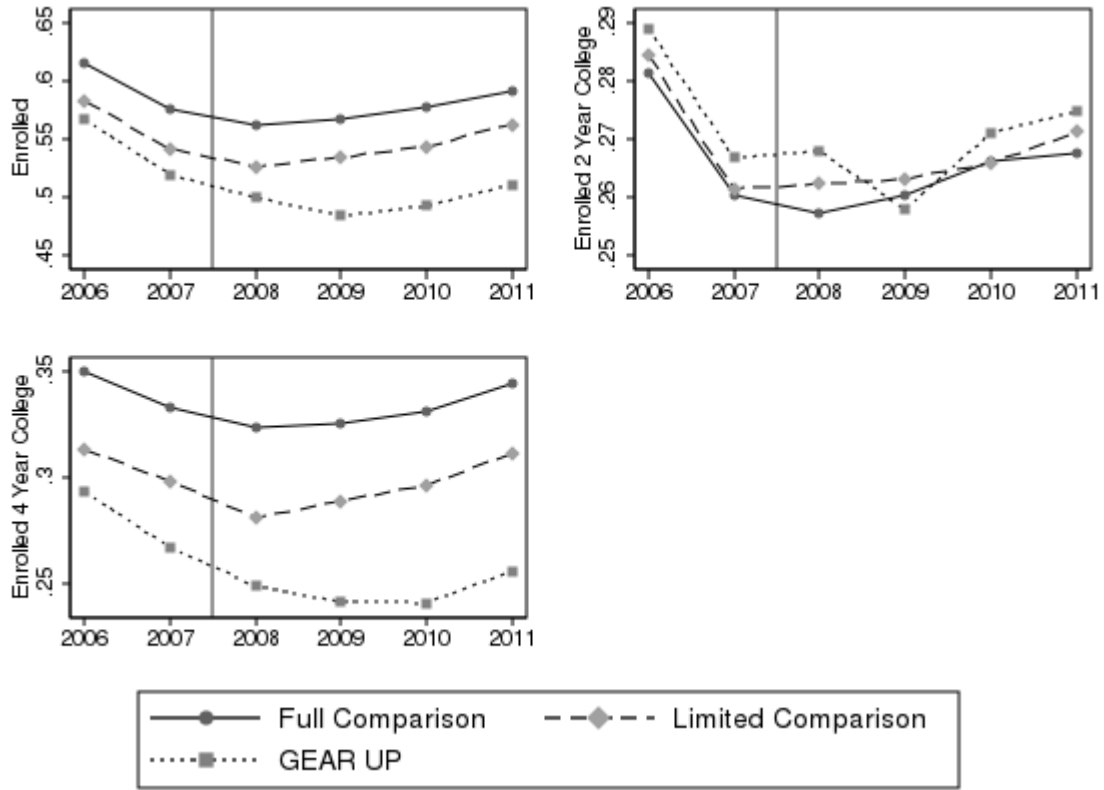
The likely outcomes for transfers and other non-graduates are more difficult to make assumptions for. Therefore, our other sensitivity tests explore the effects of extreme assumptions where other non-graduates and transfers are assumed to have a zero or a one for all outcomes. Sensitivity test results are shown in the appendix.

### Pretreatment Trends

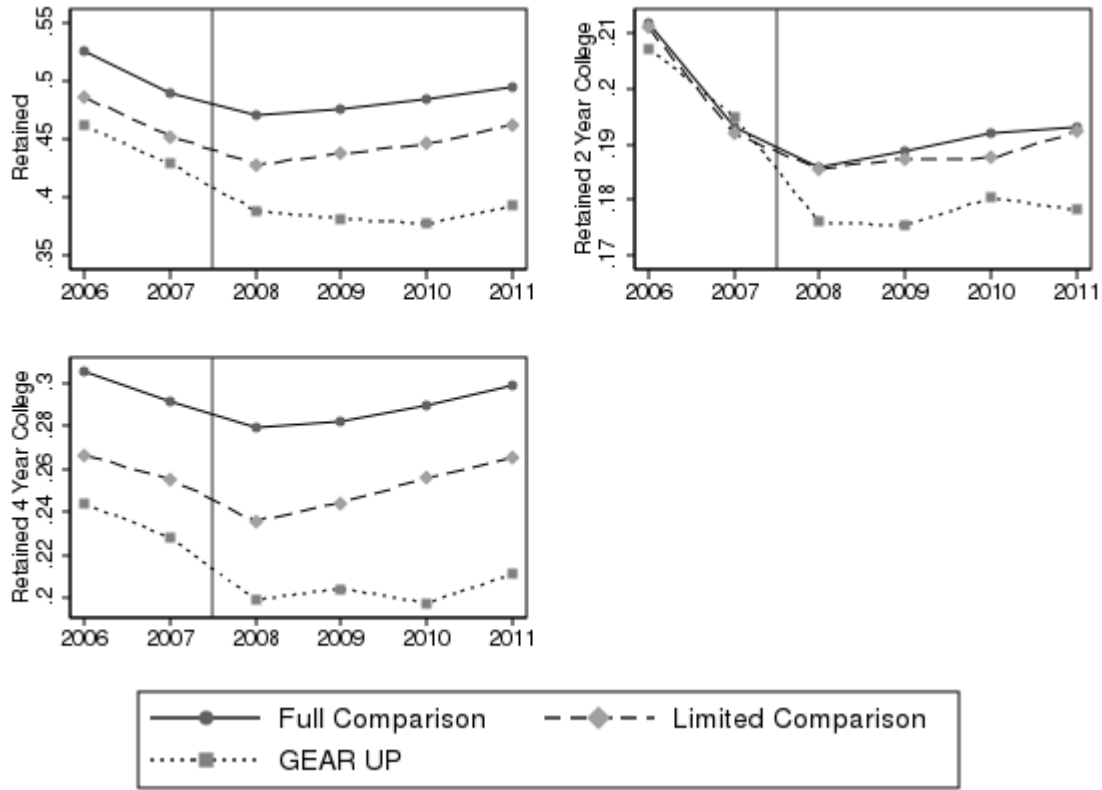
The difference-in-differences analysis strategy rests on the assumption that students in treatment schools – that is GEAR UP high schools – would have similar outcome trends to comparison students in the absence of the treatment. In order to test this assumption, we examine the trends for students in GEAR UP schools prior to the introduction of treatment compared to trends for comparison students over the same time period. Figures 2 to 5 show outcome trends over time for each of the outcomes examined in this study for GEAR UP students and comparison students. In addition, we use regression analysis to examine whether there were differences in the pretreatment trends after controlling for covariates. These regressions show no significant differences in pretreatment trends for either comparison group.



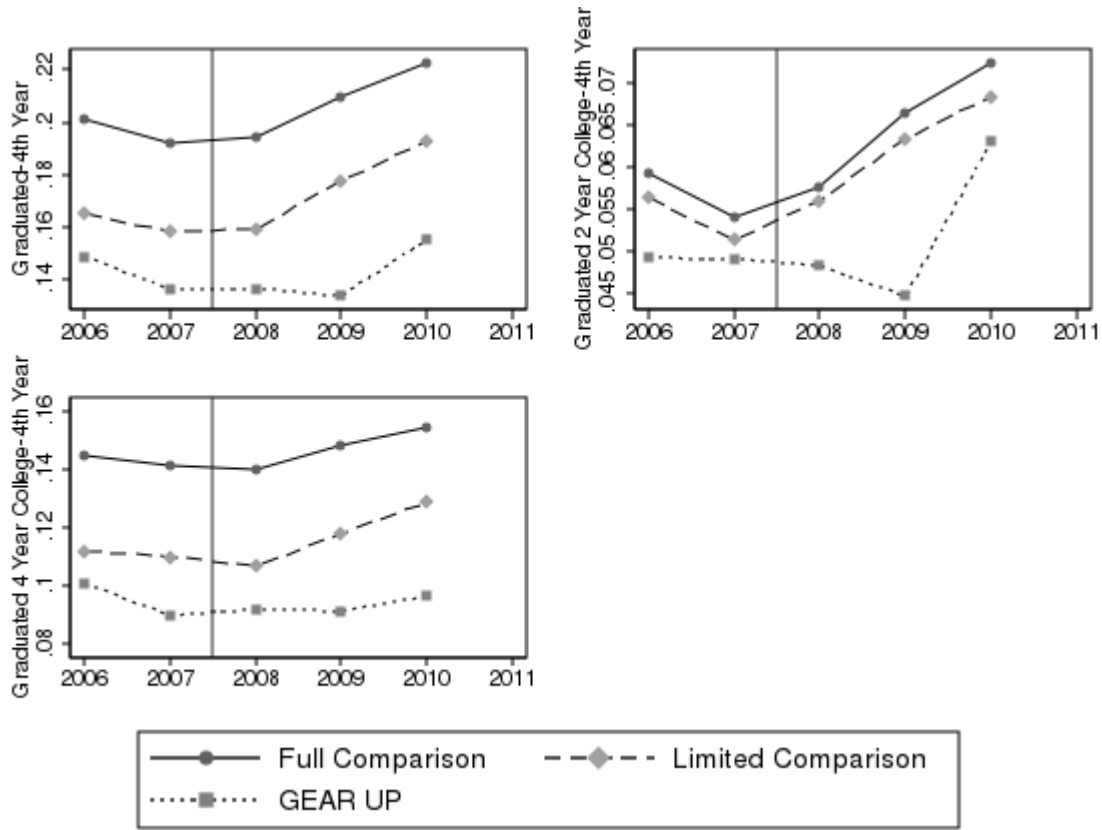
**Figure 2. Enrollment in College in the First Year Post-High School**



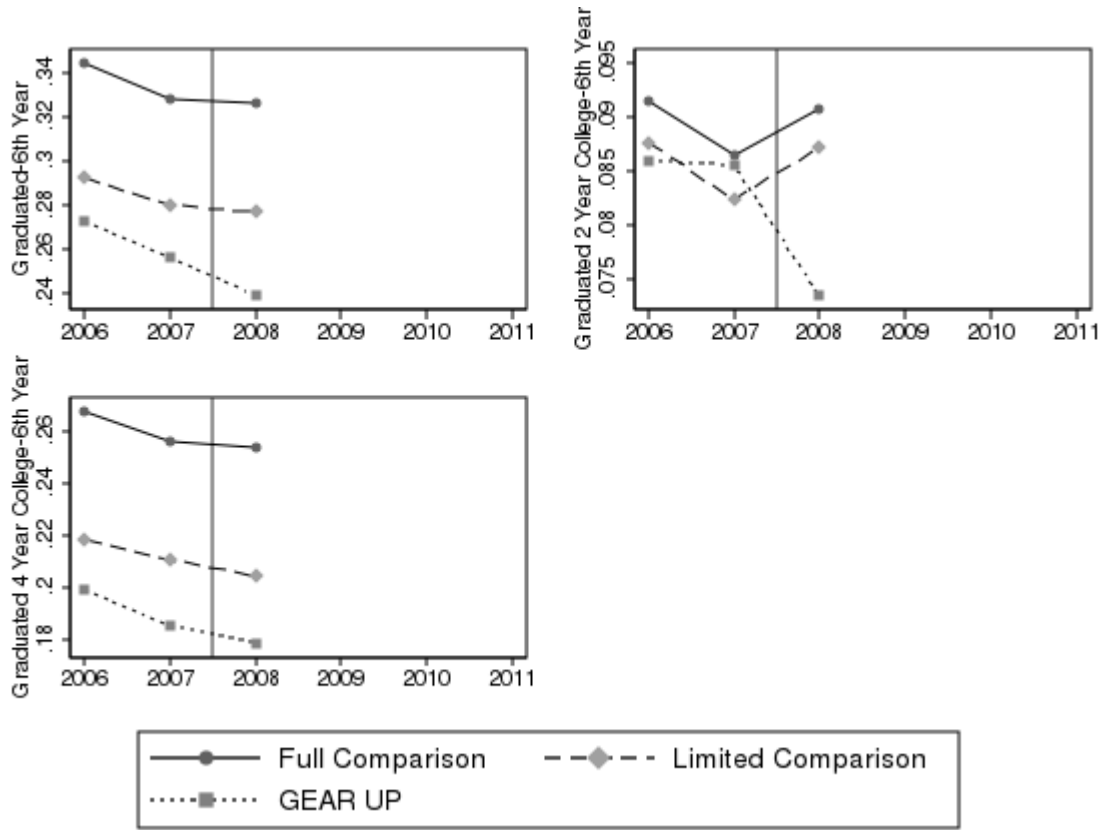
**Figure 3. Retention in College in the 2nd Year Post-High School**



**Figure 4. Graduation from College Four-years Post-High School**



**Figure 5. Graduation from College Six Years Post-High School**



## Results

The results from the differences-in-differences analysis (presented in tables 3 to 6) show the change in outcomes for students in GEAR UP schools relative to students in the two sets of comparison schools after the introduction of the GEAR UP treatment. For each outcome, there are two sets of models. The first model controls only for student demographics, while the second model adds controls for eighth grade test score performance. While controlling for student academic performance is potentially valuable, since the only measure of academic performance we have is taken after some students began treatment in middle school GEAR UP programs, there is a possibility that these models may be biased if GEAR UP influence eighth grade test score performance. However, it is important to consider both sets of models. All models also control for GEAR UP exposure in middle school.

Table 3 shows the difference-in-differences results for college enrollment in the first year post-high school. The first model shows positive effects for GEAR UP in enrollment overall and enrollment in four-year colleges compared to the full or limited comparison samples. However, controlling for pretreatment test scores reduced the size of the effect of GEAR UP and the effect

is no longer statistically significant, which suggests that preexisting differences between GEAR UP students and comparison students may explain the differences in college enrollment rather than the treatment of GEAR UP itself.

**Table 4. Difference-in-Differences Results for College Enrollment**

	Enrollment		Enrollment - 2-year		Enrollment - 4-year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.025**</b>	0.013	0.011	0.012	<b>0.017*</b>	0.003
	0.010	0.010	0.012	0.012	0.009	0.010
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.187	0.208	0.044	0.048	0.242	0.306
<b>N</b>	510569	483963	510569	483963	510569	483963
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.027**</b>	0.013	0.010	0.012	<b>0.021*</b>	0.005
	0.010	0.010	0.012	0.012	0.009	0.010
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.182	0.203	0.042	0.043	0.220	0.285
<b>N</b>	355128	334916	355128	334916	355128	334916

Table 4 shows difference-in-differences estimates for retention in college in the second year post-high school. The first model shows a significant positive relationship between GEAR UP treatment and retention in a four-year school, but this effect is reduced to non-significance once pretreatment test scores are controlled for.

**Table 5. Differences-in-Differences Results for Retention**

	Retention		Retention - 2-year		Retention - 4-year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.013	-0.000	-0.000	-0.000	<b>0.017*</b>	0.004
	0.009	0.010	0.009	0.009	0.009	0.010
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.200	0.229	0.038	0.039	0.237	0.297
<b>N</b>	510569	483963	510569	483963	510569	483963
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.016	0.002	0.002	0.002	<b>0.018*</b>	0.005
	0.009	0.010	0.009	0.009	0.009	0.010
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes

<b>Performance?</b>						
<b>R<sup>2</sup></b>	0.189	0.219	0.039	0.038	0.213	0.273
<b>N</b>	355128	334916	355128	334916	355128	334916

Table 5 shows difference-in-differences estimates for graduating from college within four-years following high school graduation. The first model shows a significant positive relationship between GEAR UP treatment and graduation overall and for four-year colleges. However, controlling for pretreatment test scores again reduces the point estimate of the effects and causes them to drop from significance.

**Table 6. Differences-in-Differences Results for Graduation in Four-years**

	<b>Graduation in 4</b>		<b>Grad in 4 - 2-year</b>		<b>Grad in 4 - 4-year</b>	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.013*</b>	0.005	-0.001	-0.003	<b>0.015**</b>	0.008
	0.006	0.007	0.005	0.005	0.005	0.006
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.152	0.179	0.033	0.034	0.178	0.210
<b>N</b>	425190	401819	425190	401819	425190	401819
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.013*</b>	0.005	-0.002	-0.003	<b>0.016**</b>	0.009
	0.006	0.007	0.005	0.005	0.006	0.006
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.139	0.164	0.034	0.035	0.153	0.183
<b>N</b>	289519	272039	289519	272039	289519	272039

Table 6 shows the difference-in-differences estimates for graduating from college within six years of high school graduation. These models show significant negative effects of GEAR UP exposure on graduating from a two-year college within six years of high school graduation. However, it should be noted that this outcome is only available for one post-treatment cohort.

**Table 7. Differences-in-Differences Results for Graduation in Six Years**

	<b>Graduation in 6</b>		<b>Grad in 6 - 2-year</b>		<b>Grad in 6 - 4-year</b>	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.011	0.006	-0.010	<b>-0.013*</b>	0.020	0.016
	0.010	0.012	0.006	0.006	0.010	0.012
<b>Pretreatment</b>	No	Yes	No	Yes	No	Yes

<b>Performance?</b>						
<b>R<sup>2</sup></b>	0.229	0.266	0.040	0.040	0.240	0.283
<b>N</b>	258172	242322	258172	242322	258172	242322
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.009	0.005	<b>-0.013*</b>	<b>-0.015*</b>	0.020	0.017
	0.010	0.012	0.006	0.006	0.010	0.012
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.206	0.240	0.045	0.045	0.205	0.244
<b>N</b>	170811	159154	170811	159154	170811	159154

### Sensitivity Checks

To test the sensitivity of results to how missing NSC outcomes are treated, we perform three additional sets of models. The first sensitivity test treats all dropouts as missing rather than assuming that dropouts did not enroll in college. The results of these models are overwhelmingly similar to the primary specification.

The second sensitivity test examines assumptions around the treatment of non-high school graduates who are neither dropouts nor transfers. For these analyses, we make the assumption that all of these other non-high school graduates have either zeros or ones for all outcomes. By making these extreme assumptions, we can explore the bounds of how this changes the analysis. The results of the analysis with the assumption of zeros for all outcomes are very similar to the results for the primary analysis. However, the assumption that all outcomes for this group are equal to one results in non-significant results in all models.

The third sensitivity test examines assumptions around the treatment of students who transferred out of NC public schools. As with other non-graduates, we test models where the outcomes for these students are all set to zero or all set to one. Again, the models where all transfers are assumed not to have attended college show similar results to the primary models, but the models where all transfers are assumed to have attended college result in non-significant results for all outcomes.

All sensitivity results are shown in appendix A.

### **Conclusions**

This study provides no robust evidence of an impact of GEAR UP treatment under the second GEAR UP NC grant on enrollment, retention, or graduation from college. Although there is some suggestive evidence that GEAR UP may slightly increase enrollment in and graduation from four-year colleges, these results are not robust to the inclusion of eighth grade test scores. In addition, changes in how missing outcome data are dealt with result in non-significant effects for all outcomes. However, estimates of the effect of GEAR UP on high school graduation do

show a small increase in graduation rates for GEAR UP students. An increase in high school graduation rates may have a negative effect on college outcomes as the marginal high school graduate is less likely to succeed in college compared to other graduates. In addition, if GEAR UP increased eighth grade test scores, the results in models controlling for eighth grade performance may be biased. Therefore, these results may represent a lower bound estimate of the effects of the GEAR UP NC grant 2.



# Subbaccalaureate Certificate Programs

The goal of this analysis is to use data from the National Student Clearinghouse to describe the prevalence of subbaccalaureate certificate enrollments as a fraction of all enrollments, the areas in which certificate enrollments occur, and the success rates of students seeking subbaccalaureate certificates. These analyses will compare GEAR UP NC schools through GEAR UP NC grant 2 to all other students in the same cohorts in the state of North Carolina and students in selected comparison schools. The selected comparison schools are intended to be more similar to GEAR UP schools. This selected comparison group is created by excluding schools with a school level percent of economically disadvantaged students less than 30 percent or a school level percent of racial/ethnic minority students less than 15 percent.

## Overall Prevalence

Figure 6 shows the percent of all undergraduate enrollees who were enrolled in certificate programs for GEAR UP schools and the two comparison groups for each cohort. The enrollment rates in these programs average around 6 to 7 percent of undergraduates for each group with GEAR UP schools having slightly higher enrollment than the comparison groups. The enrollment rates for comparison schools are somewhat lower in the later cohorts which may suggest that students enroll in certificate programs somewhat later rather than directly out of college.

**Figure 6. Subbaccalaureate Certificate Seekers as a Percent of All Undergraduates**

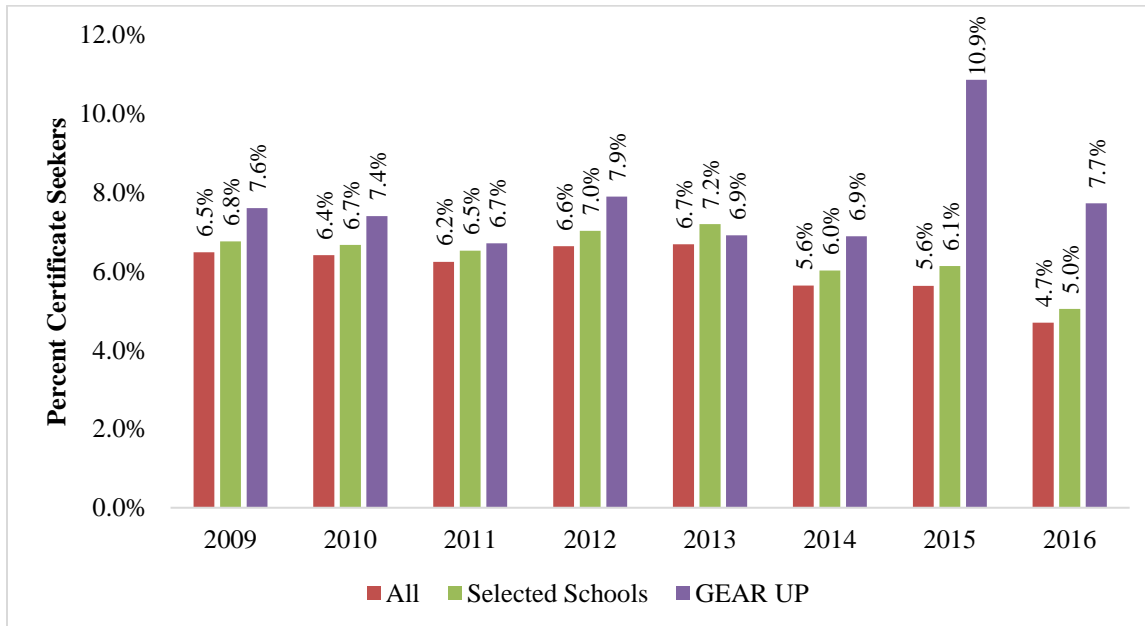
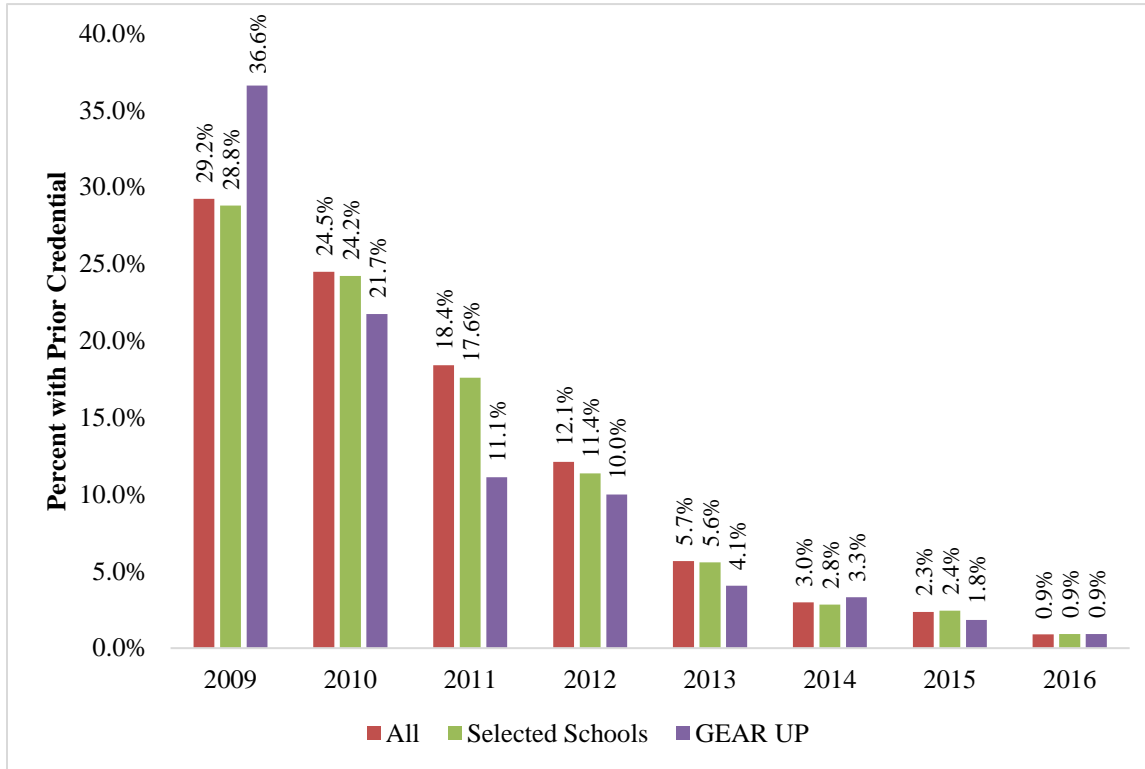


Figure 7 shows the percent of certificate seekers who have already received a post-secondary degree. This graph shows that the number of certificate seekers to have previously received a

degree is much higher among the earliest cohorts which is likely because these cohorts have had the most time to finish a degree and then return to seek a further certificate. There is no clear pattern of differences between the GEAR UP schools and the comparison schools.

**Figure 7. Percent of Certificate Seekers with Prior Post-secondary Degree**



### Area of Focus

Figures 8-10 show the distribution of area of focus for certificate seekers for all comparison schools, selected comparison schools, and GEAR UP schools. In figure 8, there are some notable differences between cohort with earlier cohorts more likely to seek healthcare certificates and later cohorts more likely to seek certificates in manufacturing/construction/repair/transportation. This difference may reflect that students are more likely to return to school to seek healthcare certificates and more likely to seek manufacturing/construction/repair/transportation upon initial enrollment. Overall the most common types of certificates are healthcare, manufacturing/construction/repair/transportation, and social sciences/humanities.

**Figure 8. Distribution of Area for Certificate Seekers - All Schools**

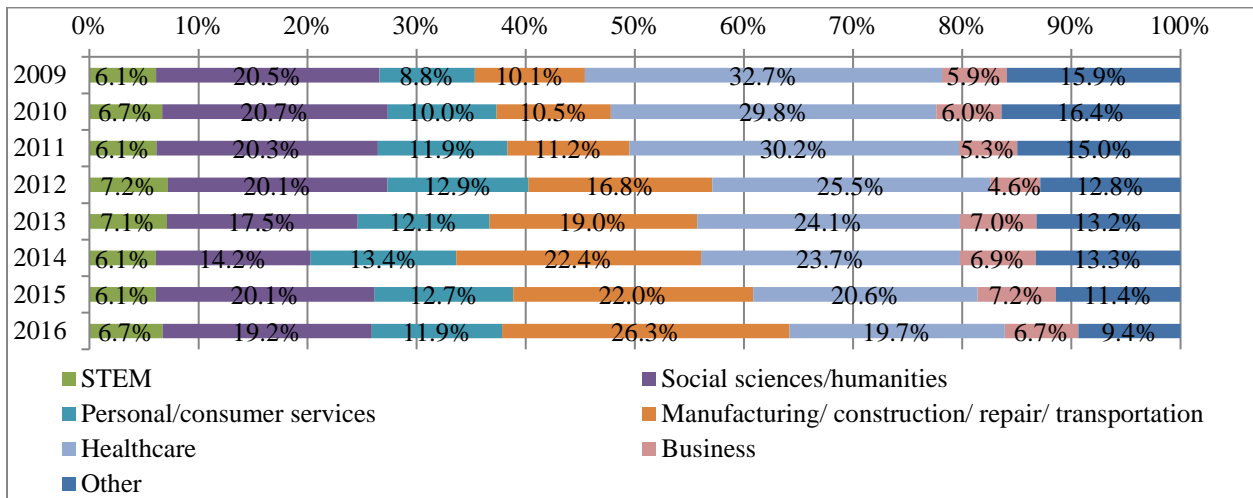


Figure 9 shows very similar patterns of certificate focus areas for students in selected schools as the statewide distribution.

**Figure 9. Distribution of Area for Certificate Seekers - Selected Schools**

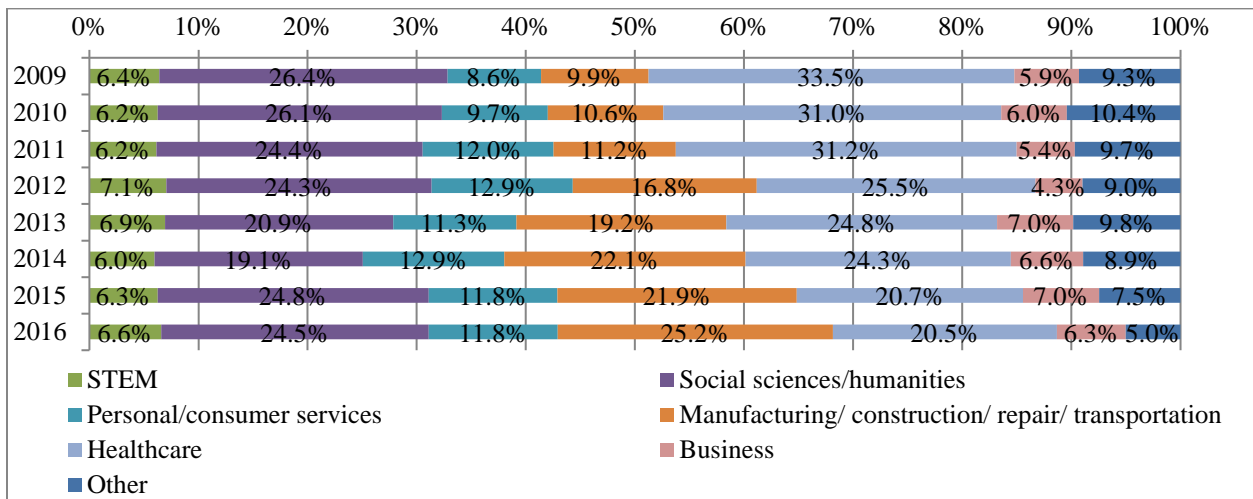
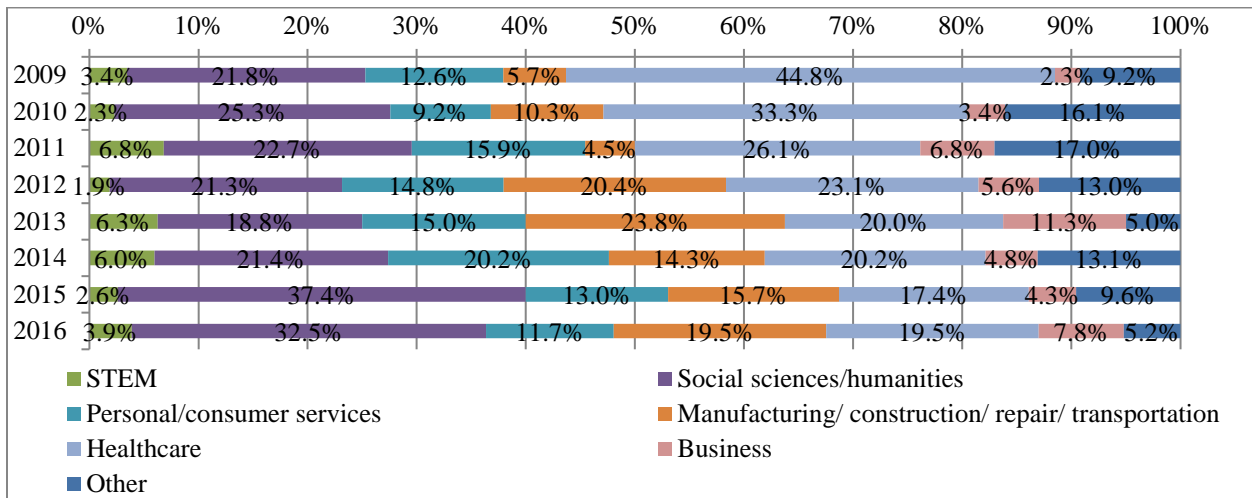


Figure 10 shows the distribution of certificate areas for GEAR UP schools. Students in the early cohorts at these schools seem to be more likely to seek certificates in healthcare. In later cohorts, GEAR UP students are more likely to seek certificates in social sciences/humanities than comparison students.

**Figure 10. Distribution of Area for Certificate Seekers - GEAR UP Schools**



### Success Rates

Figures 11 to 13 show the percent of post-secondary enrollees achieving the intended credential by enrollment level for all comparison schools, selected comparison schools and GEAR UP schools. Figure 11 shows that across all schools, students entering a two-year degree program are the least likely to receive that degree, while those in a four-year degree program are most likely to receive the degree. Certificate seekers fall in between two-year and four-year degree program enrollees in success rates with success rates between 50 and 60 percent.

**Figure 11. Percent of Enrollees Achieving Credential by Enrollment Level - All Schools**

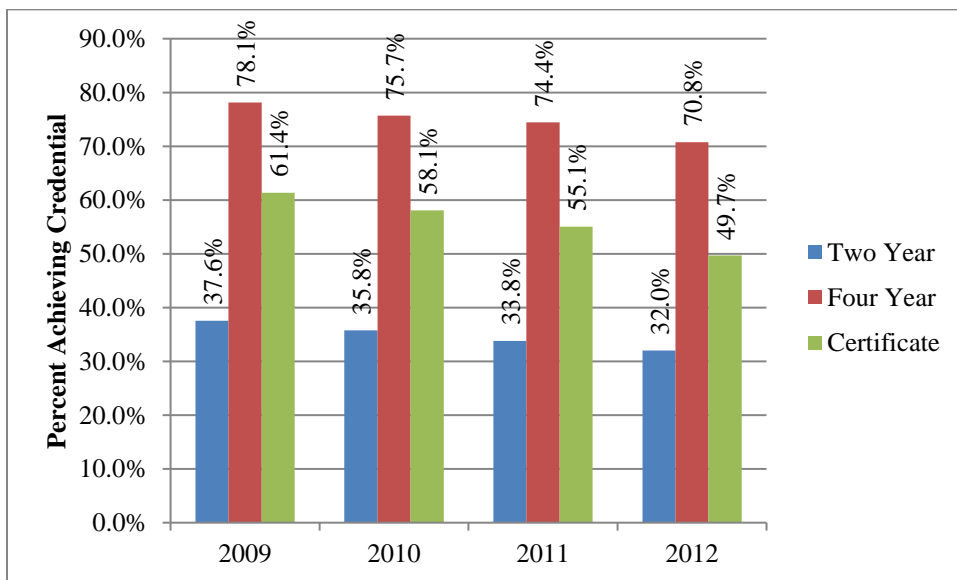


Figure 12 shows very similar patterns for the selected comparison schools compared to the statewide sample, although the overall success rates are somewhat lower.

**Figure 12. Percent of Enrollees Achieving Credential by Enrollment Level - Selected Schools**

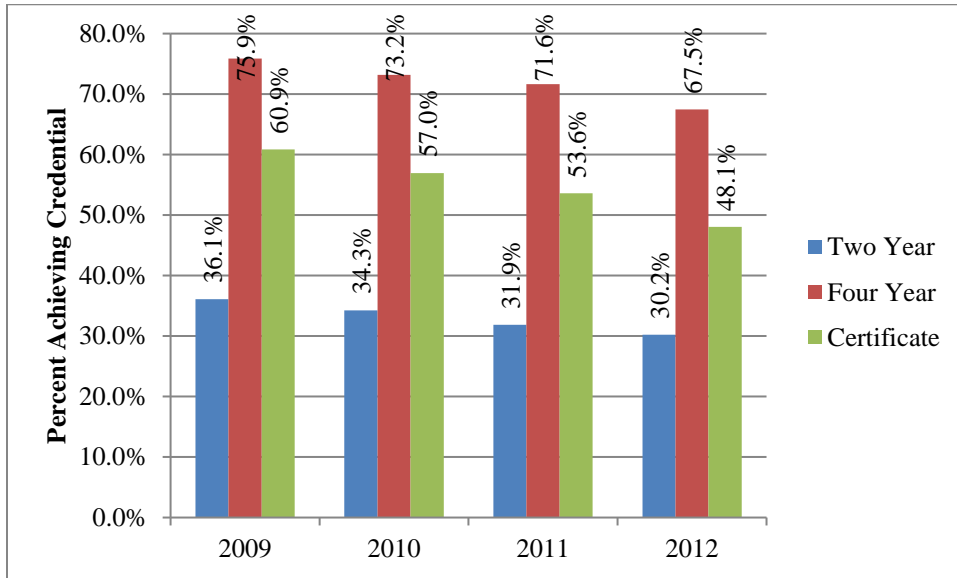


Figure 13 shows the success rates for GEAR UP schools. Compared to both comparison groups, the success rates are lower for students at GEAR UP schools for two-year or four-year degree programs. For certificate programs, the success rates of GEAR UP students are higher than the comparison groups in the first two cohorts but lower for the remaining cohorts.

**Figure 13. Percent of Enrollees Achieving Credential by Enrollment Level - GEAR UP Schools**

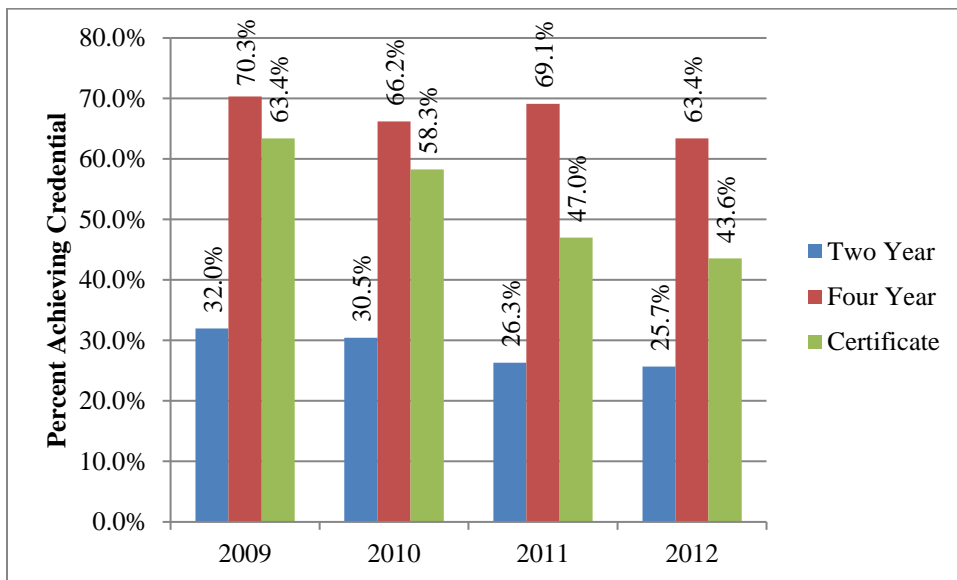


Table 8 show regression results comparing the success rates of two-year and four-year degree seekers compared to certificate seekers. These descriptive regressions control for student

demographic characteristics and cohort. The results show that for all schools, selected schools, and GEAR UP schools, two-year degree seekers are less likely to be successful than certificate seekers while four-year degree seekers are more likely to be successful.

**Table 8. Regression Results of Likelihood of Receiving a Credential for Degree Programs Compared to Certificate Programs**

	All Schools	Selected Schools	GEAR UP Schools
<b>Two-year Degree Program</b>	-0.144***	-0.140***	-0.138***
<b>Four-year Degree Program</b>	0.358***	0.348***	0.313***
<b>N</b>	277,480	220,979	10,199

# Multiple Institutional Enrollments

The goal of this analysis is to use data from the National Student Clearinghouse to describe patterns of multiple institutional enrollment by starting institution type, student characteristics, and likelihood of achieving a bachelor’s degree. These analyses will compare GEAR UP NC schools through GEAR UP NC grant 2 to all other students in the same cohorts in the state of North Carolina and students in selected comparison schools. The selected comparison schools are intended to be more similar to GEAR UP schools. This selected comparison group is created by excluding schools with a school level percent of economically disadvantaged students less than 30 percent or a school level percent of racial/ethnic minority students less than 15 percent.

## Multiple Institutional Attendance by Starting Institution Type

Tables 9 to 11 show the patterns of multiple institution attendance for students attending all schools in North Carolina, selected comparison schools, and GEAR UP schools. Table 9 shows that overall about 62 percent of students attend only one post-secondary institution with those starting at four-year institutions, especially private four-year institutions being more likely to attend multiple institutions. About 13 percent of students attend multiple institutions by co-enrolling – that is attending multiple institutions at the same time, while approximately 23 percent transfer institutions at least once. Students starting in four-year institutions are particularly likely to co-enroll, especially if the institution is public. Transfer rates are similar between two-year and four-year public institutions, but quite a bit higher for private four-year institutions. Among those who transfer, those starting in a less than 2-year institution are most likely to transfer upward as are those starting in a two-year institution. Those starting in a four-year institution are almost equally likely to transfer laterally as to transfer downward. Table 10 shows similar patterns for the selected comparison schools compared to all schools.

**Table 9. Multiple Institution Attendance Patterns by Starting Institution Type - All Schools**

	Total	Less than 2-years	2-year	4-year	Public 2-Year	Public 4-Year	Private 4-Year
Total	100	100	100	100	100	100	100
Number of institutions attended							
One	62.05	71.84	66.2	58.75	66.42	60.4	53.96
More than one	37.95	28.16	33.8	41.25	33.58	39.6	46.04
Two	27.18	20.00	25.25	28.63	25.15	27.96	30.56
Three or more	10.77	8.16	8.55	12.62	8.43	11.64	15.48
Co-enrolled							
Never co-enrolled	86.87	93.16	91.29	83.54	91.28	82.97	85.16
Sometimes co-enrolled	13.13	6.84	8.71	16.46	8.72	17.03	14.84

	<b>Total</b>	<b>Less than 2-years</b>	<b>2-year</b>	<b>4-year</b>	<b>Public 2-Year</b>	<b>Public 4-Year</b>	<b>Private 4-Year</b>
Transfer status							
Never transferred	76.73	73.42	69.04	67.29	69.28	69.74	60.2
Transferred	23.27	26.58	30.96	32.71	30.72	30.26	39.8
Number of times transferred							
Once	17.89	20.26	24.87	24.16	24.73	22.65	28.51
Twice	4.36	4.74	5.01	6.87	4.94	6.18	8.87
Three times	0.85	1.32	0.89	1.4	0.87	1.19	2.01
First transfer direction							
Upward	6.38	23.95	16.99	N/A	16.95	N/A	N/A
Lateral	11.14	2.63	13.63	16.78	13.43	15.51	20.44
Downward	5.75	N/A	0.34	14.83	0.35	13.62	18.33

**Table 10. Multiple Institution Attendance Patterns by Starting Institution Type - Selected Schools**

<b>Attendance patterns</b>	<b>Total</b>	<b>Less than 2-years</b>	<b>2-year</b>	<b>4-year</b>	<b>Public 2-Year</b>	<b>Public 4-Year</b>	<b>Private 4-Year</b>
Total	100	100	100	100	100	100	100
Number of institutions attended							
One	62.06	72.21	66.75	57.88	67	59.46	53.64
More than one	37.94	27.79	33.25	42.12	33	40.54	46.36
Two	27.06	19.94	24.73	29.06	24.62	28.47	30.63
Three or more	10.88	7.85	8.52	13.06	8.38	12.07	15.73
Co-enrolled							
Never co-enrolled	90.78	93.96	91.45	83.47	91.44	82.7	85.53
Sometimes co-enrolled	9.22	6.04	8.55	16.53	8.56	17.3	14.47
Transfer status							
Never transferred	77.12	73.72	69.56	66.29	69.83	68.82	59.5
Transferred	22.88	26.28	30.44	33.71	30.17	31.18	40.5
Number of times transferred							
Once	17.52	19.94	24.34	24.77	24.18	23.23	28.91
Twice	4.32	4.53	4.99	7.12	4.92	6.41	9.04
Three times	0.86	1.51	0.92	1.5	0.89	1.28	2.1
First transfer direction							
Upward	5.85	24.17	16.35	N/A	16.3	N/A	N/A
Lateral	10.9	2.11	13.76	16.83	13.53	15.54	20.28
Downward	5.7	N/A	0.34	15.75	0.34	14.46	19.21



Table 11 shows the multiple institutional enrollments for GEAR UP schools. Overall multiple institutional enrollments are similar to those for the comparison schools. Students from GEAR UP schools are somewhat less likely to be co-enrolled or to transfer compared to students in the comparison schools.

**Table 11. Multiple Institution Attendance Patterns by Starting Institution Type - GEAR UP Schools**

Attendance patterns	Total	Less than 2-years	2-year	4-year	Public 2-Year	Public 4-Year	Private 4-Year
Total	100	100	100	100	100	100	100
Number of institutions attended							
One	62.2	76.47	67.55	56.2	67.83	58.16	62.2
More than one	37.8	23.53	32.45	43.8	32.17	41.84	37.8
Two	26.36	17.65	23.83	29.06	23.66	27.68	26.36
Three or more	11.44	5.88	8.62	14.74	8.51	14.16	11.44
Co-enrolled							
Never co-enrolled	91.53	88.24	91.76	83.49	91.73	82.34	91.53
Sometimes co-enrolled	8.47	11.76	8.24	16.51	8.27	17.66	8.47
Transfer status							
Never transferred	77.78	82.35	70.44	63.99	70.74	67.01	77.78
Transferred	22.22	17.65	29.56	36.01	29.26	32.99	22.22
Number of times transferred							
Once	16.77	11.76	23.69	25.48	23.51	23.02	16.77
Twice	4.26	5.88	4.56	8.27	4.45	7.8	4.26
Three times	0.97	0	1.13	1.78	1.13	1.69	0.97
First transfer direction							
Upward	5.42	11.76	14.32	N/A	14.35	N/A	5.42
Lateral	10.62	5.88	14.87	16.3	14.53	14.92	10.62
Downward	5.82	N/A	0.39	18.58	0.39	16.95	5.82

### Multiple Institutional Enrollments by Student Characteristics

Tables 12 to 14 show the probability and types of multiple institutional enrollments by different student characteristics. Table 12 shows the multiple institutional enrollments across all schools in North Carolina. Students in public schools are more likely to be enrolled in only one school overall. They are more likely to co-enroll but less likely to transfer than students who attend a private school. Female students are more likely to attend multiple institutions, more likely to co-enroll and more likely to transfer than male students. By race/ethnicity, American Indian and

Black students are more likely to attend multiple institutions than White students while Asian/Pacific Islander and Hispanic students are less likely to attend multiple institutions. Black students and American Indian students are more likely to transfer than White students, while students of all other race/ethnicities except Asian/Pacific Islanders are less likely to co-enroll than White students. Economically disadvantaged students are more likely to transfer but less likely to co-enroll than non-economically disadvantaged students.

**Table 12. Multiple Institution Enrollments by Student Characteristics - All Schools**

	Number of Institutions						
	One	More than One				Co-enrolled	Transfer
		Total	Two	Three	4+		
Total	58.75	41.25	28.63	9.53	3.09	16.46	32.71
First institution sector							
Public	60.4	39.6	27.96	8.87	2.77	17.03	30.26
Private	53.96	46.04	30.56	11.43	4.05	14.84	39.8
Sex							
Male	62.01	37.99	27.26	8.35	2.38	13.83	30.59
Female	56.2	43.8	29.69	10.45	3.66	18.48	34.37
Race/ethnicity							
American Indian	57.02	42.98	30.17	10.25	2.56	14	36.79
Asian/Pacific Islander	62.82	37.18	26.63	8.17	2.38	18.58	27.07
Black	56.39	43.61	29.53	10.29	3.79	14.23	37.51
White	59.2	40.8	28.44	9.42	2.94	17.55	31.18
Other	59.61	40.39	28.63	9.1	2.66	14.97	32.66
Hispanic	63.04	36.96	27.15	7.7	2.11	14.65	28.95
Economic Disadvantage							
Yes	59.32	40.68	28.47	9.21	3	12.85	34.82
No	58.55	41.45	28.68	9.65	3.12	17.74	31.97

Table 13 shows that the overall patterns of multiple institutional enrollment are similar for selected comparison schools.

**Table 13. Multiple Institution Enrollments by Student Characteristics - Selected Schools**

	Number of Institutions						
	One	More than One				Co-enrolled	Transfer
		Total	Two	Three	4+		
Total	57.88	42.12	29.06	9.79	3.27	16.53	33.71
First institution sector							
Public	59.46	40.54	28.47	9.13	2.94	17.3	31.18
Private	53.64	46.36	30.63	11.55	4.18	14.47	40.5
Sex							
Male	61.34	38.66	27.68	8.5	2.48	13.8	31.41
Female	55.24	44.76	30.11	10.77	3.88	18.62	35.46
Race/ethnicity							
American Indian	57.2	42.8	30.3	10.04	2.46	13.84	36.68
Asian/Pacific Islander	60.63	39.37	27.95	8.7	2.72	19.52	28.78
Black	56.27	43.73	29.55	10.37	3.81	14.08	37.81
White	58.19	41.81	28.98	9.71	3.12	18.14	31.91
Other	59.04	40.96	28.79	9.23	2.94	14.95	33.32
Hispanic	63.03	36.97	27.15	7.65	2.17	14.48	29.19
Economic Disadvantage							
Yes	59.08	40.92	28.54	9.29	3.09	12.77	35.18
No	57.34	42.66	29.29	10.1	3.27	18.22	33.04

Table 14 shows the multiple institutional enrollments of students from GEAR UP schools. These students are somewhat more likely to transfer schools than students in comparison schools. However, the increase in transfer rates seems to be distributed across students of all demographics groups.

**Table 14. Multiple Institution Enrollments by Student Characteristics - GEAR UP Schools**

	Number of Institutions						Co-enrolled	Transfer
	One	Total	Two	Three	4+	More than One		
Total	56.2	43.8	29.06	10.72	4.02		16.51	36.01
First institution sector								
Public	58.16	41.84	27.68	10.14	4.02		17.66	32.99
Private	51.75	48.25	32.18	12.04	4.03		13.89	42.85
Sex								
Male	60.33	39.67	27.67	9.25	2.75		13.12	33.47
Female	52.96	47.04	30.13	11.89	5.02		19.17	37.99
Race/ethnicity								
American Indian	47.5	52.5	40	12.5	0		12.5	50
Asian/Pacific Islander	53.28	27.01	15.33	3.65	8.03		18.98	37.23
Black	55.85	44.15	28.77	10.81	4.57		12.53	39.46
White	56.02	43.98	29.46	10.61	3.91		20.18	33.54
Other	55.94	44.06	29.5	11.88	2.68		14.94	36.78
Hispanic	62.41	37.59	26.78	8.85	1.96		13.27	30.47
Economic Disadvantage								
Yes	57.81	42.19	28.09	10.34	3.76		12.29	37.4
No	55.06	44.94	29.73	11	4.21		19.53	35

**Multiple Institutional Attendance and Bachelor’s Degree Receipt**

Figures 14 to 16 show the percent of students who received a bachelor’s degree who attended multiple institutions versus just one institution. Figure 14 shows that among students from all high schools in North Carolina, nearly half of those who received a bachelor’s attended just one institution. An additional third of bachelor’s degree recipients attended two institutions. Only about 16 percent of those who received a bachelor’s attended more than 2 institutions.

**Figure 14. Number of Institutions Attended by Bachelor's Degree Recipients - All Schools**

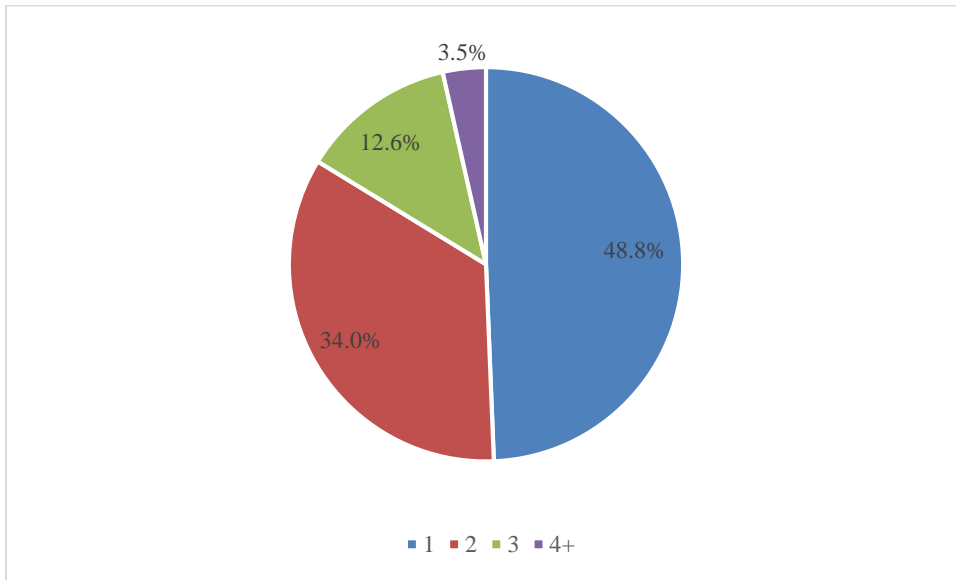
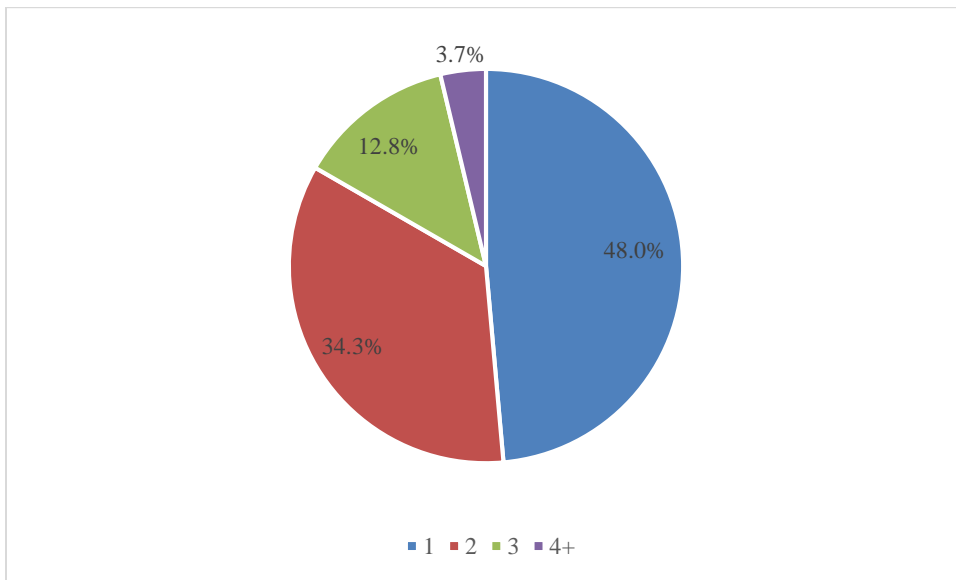


Figure 15 shows that the distribution of multiple institution attendance for those who received a bachelor's from selected high schools looks overwhelmingly similar to the state as a whole.

**Figure 15. Number of Institutions Attended by Bachelor's Degree Recipients - Selected Schools**



The distribution for students from GEAR UP high schools also looks overwhelming similar, as shown in figure 16.

**Figure 16. Number of Institutions Attended by Bachelor's Degree Recipients - GEAR UP Schools**

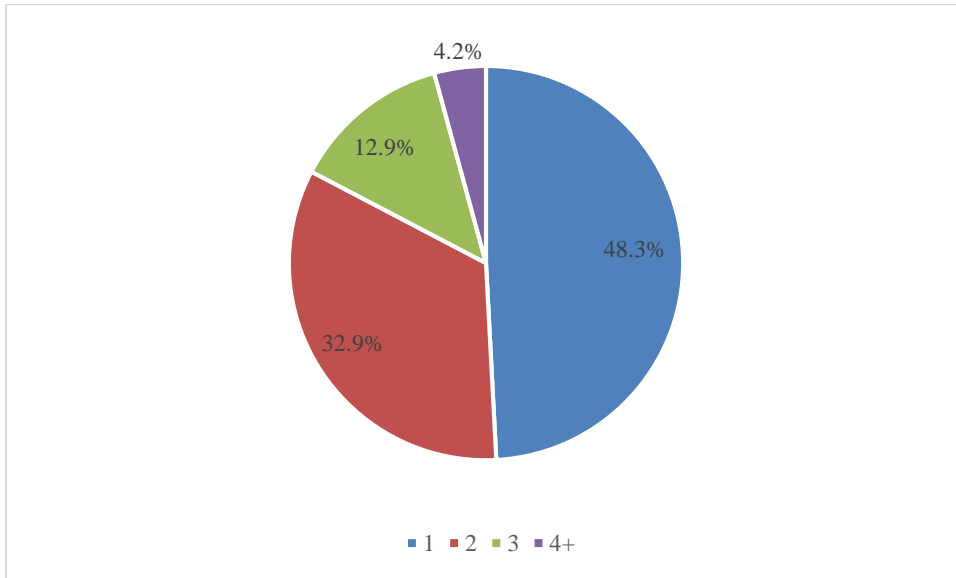


Table 15 shows the results of linear regression models that regress an indicator for receiving a bachelors on indicators for multiple institution attendance, transfer, co-enrollment, and the number of institutions attended. These models control for initial four-year enrollment as well as student demographics. These results show that for all three groups of students attending multiple institutions was associated with an increase in the likelihood of receiving a bachelor's. However, the association is weaker for GEAR UP schools. In particular, co-enrollment has a strong association with receiving a bachelor's while the effect for transferring is somewhat weaker. These results probably reflect that students who continue to enroll in college, even through multiple institutions are more likely to complete a bachelor's than students who drop out after a single attempt at post-secondary education.

**Table 15. Regression Results of the Effect of Multiple Institution Enrollments on Bachelor's Degree Receipt**

	<b>All Schools</b>	<b>Selected Schools</b>	<b>GEAR UP Schools</b>
Model 1			
Multiple Institutions	0.101***	0.096***	0.071***
Initial Four-year Enrollment	0.313***	0.311***	0.313***
Model 2			
Multiple Institutions	0.034***	0.032***	0.003
Transfer	0.038***	0.034***	0.034***
Co-enroll	0.078***	0.084***	0.098*
Initial Four-year Enrollment	0.310***	0.308***	0.309***
Model 3			
	All Schools	Selected Schools	GEAR UP Schools
Number of Institutions	0.065***	0.062***	0.048***
Initial Four-year Enrollment	0.312***	0.310***	0.311***

## Appendix A – Sensitivity Checks

### *Differences-in-Differences Results with Drop Outs as Missing*

**Table A- 1. Enrollment**

	Enrollment		Enrollment - 2-year		Enrollment - 4-year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.019	0.006	0.006	0.009	0.017	0.000
	0.011	0.011	0.013	0.013	0.011	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.145	0.154	0.047	0.060	0.224	0.290
<b>N</b>	461698	440070	461698	440070	461698	440070
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.021	0.008	0.005	0.010	0.020	0.002
	0.011	0.011	0.013	0.013	0.011	0.012
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.142	0.150	0.042	0.051	0.204	0.270
<b>N</b>	316796	300595	316796	300595	316796	300595

**Table A- 2. Retention**

	Retention		Retention - 2-year		Retention - 4-year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.007	-0.006	-0.005	-0.003	0.017	0.003
	0.010	0.010	0.010	0.010	0.010	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.167	0.189	0.038	0.043	0.223	0.284
<b>N</b>	461698	440070	461698	440070	461698	440070
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.012	-0.003	-0.002	0.000	0.018	0.002
	0.010	0.011	0.010	0.010	0.010	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.158	0.180	0.037	0.039	0.200	0.261
<b>N</b>	316796	300595	316796	300595	316796	300595



**Table A- 3. Graduation in Four-years**

	Graduation in 4		Grad in 4 - 2-year		Grad in 4 - 4-year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.014	0.003	-0.003	-0.004	<b>0.017**</b>	0.008
	0.007	0.008	0.006	0.006	0.006	0.007
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.139	0.165	0.033	0.034	0.170	0.205
<b>N</b>	376319	357926	376319	357926	376319	357926
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.013	0.003	-0.003	-0.005	<b>0.018**</b>	0.009
	0.007	0.008	0.006	0.006	0.006	0.007
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.128	0.152	0.034	0.034	0.146	0.179
<b>N</b>	251187	237718	251187	237718	251187	237718

**Table A- 4. Graduation in Six Years**

	Graduation in 6		Grad in 6 - 2-year		Grad in 6 - 4-year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.003	-0.006	<b>-0.020*</b>	<b>-0.022*</b>	0.019	0.011
	0.013	0.015	0.009	0.009	0.013	0.014
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.185	0.223	0.035	0.035	0.212	0.260
<b>N</b>	209301	198429	209301	198429	209301	198429
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.005	-0.004	<b>-0.023**</b>	<b>-0.025**</b>	0.025	0.016
	0.014	0.015	0.009	0.009	0.013	0.014
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.165	0.201	0.039	0.039	0.179	0.224
<b>N</b>	132479	124833	132479	124833	132479	124833

*Differences-in-Differences Results with Outcomes for Others Missing from the NSC as Set to 0*

**Table A- 5. Enrollment**

	Enrollment		Enrollment - 2-year		Enrollment - 4-year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.028**</b>	0.016	0.013	0.014	<b>0.018*</b>	0.004
	0.010	0.010	0.011	0.011	0.008	0.010
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.192	0.214	0.045	0.047	0.243	0.306
<b>N</b>	523645	495460	523645	495460	523645	495460
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.029**</b>	0.016	0.012	0.014	<b>0.021*</b>	0.006
	0.010	0.010	0.011	0.011	0.009	0.010
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.186	0.209	0.043	0.043	0.221	0.285
<b>N</b>	365509	344028	365509	344028	365509	344028

**Table A- 6. Retention**

	Retention		Retention - 2-year		Retention - 4-year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.015	0.002	0.001	0.001	<b>0.017*</b>	0.005
	0.009	0.009	0.008	0.009	0.008	0.009
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.204	0.234	0.039	0.039	0.238	0.298
<b>N</b>	523645	495460	523645	495460	523645	495460
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.018*</b>	0.005	0.003	0.003	<b>0.019*</b>	0.005
	0.009	0.009	0.009	0.009	0.008	0.009
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.192	0.224	0.040	0.038	0.214	0.273
<b>N</b>	365509	344028	365509	344028	365509	344028

**Table A- 7. Graduation in Four-years**

	Graduation in 4		Grad in 4 - 2-year		Grad in 4 - 4-year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.013*</b>	0.005	-0.001	-0.002	<b>0.015**</b>	0.008
	0.006	0.007	0.005	0.005	0.005	0.006
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.154	0.180	0.033	0.034	0.178	0.210
<b>N</b>	438266	413316	438266	413316	438266	413316
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.012*</b>	0.005	-0.002	-0.003	<b>0.015**</b>	0.009
	0.006	0.007	0.005	0.005	0.005	0.006
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.140	0.165	0.034	0.035	0.153	0.182
<b>N</b>	299900	281151	299900	281151	299900	281151

**Table A- 8. Graduation in Six Years**

	Graduation in 6		Grad in 6 - 2-year		Grad in 6 - 4-year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.012	0.007	-0.009	-0.011	0.019	0.015
	0.010	0.011	0.006	0.006	0.010	0.012
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.234	0.270	0.041	0.041	0.242	0.283
<b>N</b>	271248	253819	271248	253819	271248	253819
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.008	0.004	-0.011	<b>-0.013*</b>	0.018	0.015
	0.010	0.011	0.006	0.006	0.010	0.012
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.210	0.243	0.046	0.047	0.206	0.244
<b>N</b>	181192	168266	181192	168266	181192	168266

*Differences-in-Differences Results with Outcomes for Others Missing from the NSC as Set to 1*

**Table A- 9. Enrollment**

	Enrollment		Enrollment - 2- year		Enrollment - 4- year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.018	0.005	0.003	0.003	0.008	-0.006
	0.010	0.010	0.011	0.011	0.010	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.166	0.185	0.039	0.045	0.209	0.265
<b>N</b>	523645	495460	523645	495460	523645	495460
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.020	0.006	0.002	0.003	0.012	-0.004
	0.010	0.011	0.011	0.011	0.010	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.158	0.177	0.034	0.037	0.184	0.238
<b>N</b>	365509	344028	365509	344028	365509	344028

**Table A- 10. Retention**

	Retention		Retention - 2- year		Retention - 4- year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.005	-0.008	-0.009	-0.009	0.007	-0.006
	0.009	0.010	0.009	0.009	0.010	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.175	0.201	0.030	0.034	0.202	0.253
<b>N</b>	523645	495460	523645	495460	523645	495460
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.009	-0.006	-0.007	-0.007	0.009	-0.005
	0.010	0.011	0.009	0.009	0.010	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.161	0.187	0.028	0.029	0.174	0.222
<b>N</b>	365509	344028	365509	344028	365509	344028

**Table A- 11. Graduation in Four-years**

	Graduation in 4		Grad in 4 - 2- year		Grad in 4 - 4- year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.006	-0.003	-0.008	-0.010	0.008	-0.000
	0.007	0.008	0.007	0.007	0.007	0.008
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes

<b>R<sup>2</sup></b>	0.115	0.136	0.032	0.033	0.133	0.157
<b>N</b>	438266	413316	438266	413316	438266	413316
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.006	-0.003	-0.008	-0.011	0.009	0.001
	0.008	0.008	0.007	0.007	0.008	0.008
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.098	0.115	0.031	0.031	0.105	0.124
<b>N</b>	299900	281151	299900	281151	299900	281151

**Table A- 12. Graduation in Six Years**

	<b>Graduation in 6</b>	<b>Grad in 6 - 2-</b>		<b>Grad in 6 - 4-</b>		
		<b>year</b>		<b>year</b>		
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.017	0.008	-0.004	-0.009	0.024	0.017
	0.013	0.012	0.012	0.011	0.012	0.012
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.162	0.195	0.037	0.037	0.172	0.208
<b>N</b>	271248	253819	271248	253819	271248	253819
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.015	0.007	-0.005	-0.011	0.024	0.017
	0.013	0.013	0.012	0.012	0.012	0.012
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.130	0.159	0.037	0.036	0.132	0.162
<b>N</b>	181192	168266	181192	168266	181192	168266

*Differences-in-Differences Results with Outcomes for Transfers Set to 0*

**Table A- 13. Enrollment**

	<b>Enrollment</b>	<b>Enrollment - 2-year</b>		<b>Enrollment - 4-</b>		
		<b>year</b>		<b>year</b>		
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.026**</b>	0.014	0.010	0.011	<b>0.019*</b>	0.005
	0.009	0.009	0.011	0.011	0.008	0.009
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.175	0.195	0.042	0.044	0.228	0.287
<b>N</b>	545372	516024	545372	516024	545372	516024
<b>Vs. Limited Comparison Sample</b>						

<b>GEAR UP</b>	<b>0.027**</b>	0.014	0.010	0.011	<b>0.021*</b>	0.006
	0.009	0.010	0.011	0.011	0.008	0.010
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.171	0.192	0.040	0.040	0.210	0.269
<b>N</b>	380018	357716	380018	357716	380018	357716

**Table A- 14. Retention**

	<b>Retention</b>		<b>Retention - 2-year</b>		<b>Retention - 4-year</b>	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.014	0.002	-0.000	-0.000	<b>0.018*</b>	0.006
	0.009	0.009	0.008	0.008	0.008	0.009
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.188	0.216	0.036	0.037	0.225	0.280
<b>N</b>	545372	516024	545372	516024	545372	516024
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.017	0.004	0.002	0.002	<b>0.018*</b>	0.006
	0.009	0.009	0.008	0.008	0.008	0.009
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.179	0.208	0.037	0.036	0.203	0.258
<b>N</b>	380018	357716	380018	357716	380018	357716

**Table A- 15. Graduation in Four-years**

	<b>Graduation in 4</b>		<b>Grad in 4 - 2-year</b>		<b>Grad in 4 - 4-year</b>	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.015*</b>	0.007	-0.001	-0.002	<b>0.016**</b>	0.010
	0.006	0.007	0.005	0.005	0.005	0.006
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.146	0.170	0.031	0.032	0.169	0.198
<b>N</b>	459993	433880	459993	433880	459993	433880
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.013*</b>	0.005	-0.001	-0.003	<b>0.015**</b>	0.009
	0.006	0.007	0.005	0.005	0.005	0.006
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes

<b>R<sup>2</sup></b>	0.133	0.156	0.032	0.033	0.145	0.172
<b>N</b>	314409	294839	314409	294839	314409	294839

**Table A- 16. Graduation in Six Years**

	<b>Graduation in 6</b>		<b>Grad in 6 - 2-year</b>		<b>Grad in 6 - 4-year</b>	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.018	0.012	-0.009	-0.011	<b>0.025*</b>	0.020
	0.010	0.011	0.006	0.006	0.010	0.012
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.227	0.256	0.042	0.042	0.229	0.263
<b>N</b>	292975	274383	292975	274383	292975	274383
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.008	0.002	-0.012	<b>-0.013*</b>	0.017	0.013
	0.010	0.011	0.006	0.006	0.010	0.012
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.205	0.232	0.046	0.047	0.197	0.228
<b>N</b>	195701	181954	195701	181954	195701	181954

*Differences-in-Differences Results with Outcomes for Transfers Set to 1*

**Table A- 17. Enrollment**

	<b>Enrollment</b>		<b>Enrollment - 2-year</b>		<b>Enrollment - 4-year</b>	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.023*</b>	0.011	0.007	0.008	0.016	0.002
	0.010	0.010	0.012	0.011	0.009	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.157	0.173	0.037	0.042	0.189	0.237
<b>N</b>	545372	516024	545372	516024	545372	516024
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	<b>0.023*</b>	0.010	0.006	0.007	0.017	0.002
	0.010	0.011	0.012	0.012	0.009	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.150	0.166	0.034	0.037	0.165	0.212
<b>N</b>	380018	357716	380018	357716	380018	357716

**Table A- 18. Retention**

	Retention		Retention - 2- year		Retention - 4- year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.011	-0.001	-0.003	-0.004	0.015	0.003
	0.009	0.010	0.009	0.009	0.009	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.165	0.187	0.030	0.032	0.181	0.224
<b>N</b>	545372	516024	545372	516024	545372	516024
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.013	-0.001	-0.002	-0.002	0.015	0.001
	0.010	0.011	0.010	0.009	0.009	0.011
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.152	0.175	0.031	0.031	0.154	0.196
<b>N</b>	380018	357716	380018	357716	380018	357716

**Table A- 19. Graduation in Four-years**

	Graduation in 4		Grad in 4 - 2- year		Grad in 4 - 4- year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.013	0.004	-0.002	-0.004	0.015	0.007
	0.008	0.009	0.007	0.007	0.008	0.009
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.120	0.136	0.069	0.070	0.134	0.153
<b>N</b>	459993	433880	459993	433880	459993	433880
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.011	0.003	-0.003	-0.005	0.014	0.007
	0.008	0.009	0.007	0.008	0.008	0.009
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.109	0.123	0.072	0.073	0.115	0.131
<b>N</b>	314409	294839	314409	294839	314409	294839

**Table A- 20. Graduation in Six Years**

	Graduation in 6		Grad in 6 - 2- year		Grad in 6 - 4- year	
<b>Vs. Full Comparison Sample</b>						
<b>GEAR UP</b>	0.016	0.008	-0.010	-0.015	0.023	0.017



	0.013	0.015	0.011	0.011	0.014	0.016
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.173	0.203	0.140	0.143	0.192	0.225
<b>N</b>	292975	274383	292975	274383	292975	274383
<b>Vs. Limited Comparison Sample</b>						
<b>GEAR UP</b>	0.014	0.006	-0.005	-0.010	0.024	0.016
	0.014	0.015	0.011	0.012	0.015	0.016
<b>Pretreatment Performance?</b>	No	Yes	No	Yes	No	Yes
<b>R<sup>2</sup></b>	0.153	0.181	0.143	0.146	0.167	0.196
<b>N</b>	195701	181954	195701	181954	195701	181954