

2013

The Impact of the Kalamazoo Promise on College Choice: An Analysis of Kalamazoo Area Math and Science Center Graduates

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Policy Paper No. 2013-014

Citation

Miller-Adams, Michelle and Bridget Timmeney. 2013. "The Impact of the Kalamazoo Promise on College Choice: An Analysis of Kalamazoo Area Math and Science Center Graduates." Policy Paper No. 2013-014. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. <https://doi.org/10.17848/pol2015-014>

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February 2013

Abstract

The Kalamazoo Promise has led to a pronounced shift in the college-going patterns of Kalamazoo Public Schools (KPS) students who attend the Kalamazoo Area Math and Science Center (KAMSC). Following the introduction of the Kalamazoo Promise in 2005, the percentage of KPS KAMSC students attending public, in-state institutions of higher education has almost doubled—a shift that reflects the program rules of the Promise, which covers tuition and fees only at public postsecondary institutions in Michigan. The percentage of non-KPS KAMSC students attending an in-state, public institution also rose in the post-2006 period but only very slightly, suggesting that the Promise has shifted college choices among the eligible student population.

Key Words: Kalamazoo Promise, college choice, Michigan, STEM education

This is the first in a series of policy papers assessing the impact of the Kalamazoo Promise on students, schools, and the community. For more on the Kalamazoo Promise, visit the Upjohn Institute's [Kalamazoo Promise Research Hub](#).

**The Impact of the Kalamazoo Promise on College Choice:
An Analysis of Kalamazoo Area Math and Science Center Graduates**

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INTRODUCTION

The Kalamazoo Promise, a place-based scholarship program that provides up to full tuition coverage for every KPS graduate, has had a range of effects on students, schools, and the broader community since it was announced in November 2005.¹ Most academic research to date has addressed student- and school-level effects, assessing the impact of the program on college choice (Andrews, DesJardins, and Ranchhod 2010), student achievement (Bartik and Lachowska 2012), and school culture (Miron, Jones, and Kelaher-Young 2011). Less attention has been given to economic and community-level outcomes, which are among the goals of the program (see Miller-Adams [2009]). To the extent that these have been analyzed, research has focused on the dramatic enrollment increase in KPS that followed the introduction of the Promise (Bartik, Eberts, and Wang 2010), and a potential positive impact on home prices that has thus far failed to materialize (Miller 2011).

One expected effect of the Kalamazoo Promise is a shift in the college-going patterns of KPS graduates. The availability of full tuition scholarships that can be used only at public, in-state postsecondary institutions affects different cohorts of students in varying ways. Lower-

¹ All KPS graduates are eligible for the Kalamazoo Promise provided they meet four-year minimum residency and enrollment requirements. For program details, see the Kalamazoo Promise Web site (<https://www.kalamazoopromise.com/>).

achieving students who had not necessarily planned on continuing their education past high school are now enrolling in large numbers at the local community college, whose open admissions policies, developmental coursework, and career and technical education programs are attractions. Higher-achieving students who once attended community college to complete their general education requirements at low cost now tend to go directly into four-year programs after high school graduation. Students who might have opted to live at home and attend a local institution may now choose to go to a college outside of Kalamazoo, while those who had planned to attend a private college or out-of-state institution face a powerful incentive to enroll at a public, in-state institution.

While these trends are broadly evident in both anecdotal evidence and the data collected about Kalamazoo Promise recipients' college choices, the lack of a comparison group has made it difficult to quantify the impact of the program in shifting college choice.

This research brief looks at the college choices of high school graduates who attended and completed the KAMSC program.² With this data set, two types of comparisons are possible. First, KAMSC serves students from multiple school districts, making it possible to compare KPS students eligible for the Promise and non-KPS students who are not eligible for the scholarship. Second, data about the college enrollment plans of KAMSC graduates have been collected since 1990, making it possible to compare students' college choices before and after the introduction of the scholarship program.

The KAMSC data are also interesting from an economic development standpoint. The students who attend KAMSC are among the highest achieving math and science students in the

² KAMSC delivers a challenging, integrated, accelerated education in mathematics, science, and technology to selected students, grades 9–12, who reside and attend schools within the Kalamazoo Regional Educational Service Area (KRESA) district. Students can apply to the program in the 8th grade, and if accepted, spend a half-day at KAMSC in intensive mathematics, science, and/or computer/technology courses.

region, and are more likely than the average high school graduate to pursue graduate studies and move into high-skill, high-wage jobs. If, in fact, the Promise is shifting the population of KAMSC graduates to in-state, public institutions, in line with the terms of the Kalamazoo Promise, this may have implications for future workforce development.

The research literature offers several competing insights into how college choice might make a difference for state and local economic development. On the one hand, the state's flagship public universities—the University of Michigan and Michigan State University—are important economic development players in their own right, and any intervention that shifts high-achieving students in their direction and away from private and out-of-state schools can be seen as benefiting the state. On the other hand, higher levels of education make college graduates both more marketable and more mobile (Kodrzycki 2001; Malamud and Wozniak 2012); however, some research suggests that higher rates of college-going positively affect a state's proportion of educated residents even with these higher rates of mobility (Trostel 2010). There is also evidence that an increase in the number of college degrees attained within a given state increases the earnings not just of college graduates but of all the state's residents collectively (Bartik 2011). Other positive spillover effects for communities in which highly educated individuals gather together have been well documented by Edward Glaeser, Richard Florida, and others.

Simply retaining high-achieving students within the state does not tell us much about the impact of the Promise on local economic development, as there is limited knowledge about what percentage of students return to their local community after graduating from college. However, the KAMSC data could provide an opportunity to connect college attendance with subsequent employment and even wage levels, an area for possible future study.

THE DATA

A review of the KAMSC college-going data was completed to determine if any pre- and post- Promise college-going patterns could be detected. The question addressed is whether or not students' college selection and enrollment choices changed after the Promise was announced to students, beginning with the graduating class of 2006. The KAMSC data included graduating classes spanning the first class in 1990 through 2012. All sending high schools were analyzed in addition to disaggregating the two KPS high schools. Although the sample includes a total of 1,555 KAMSC graduates, college-going information was not available for four students, resulting in the total universe of 1,551 records over this 22-year history. Of these records, 491 (32 percent) are KPS graduates.

The data set identifies the college attended the first year post-KAMSC graduation. Colleges and universities were assigned to one of four categories—1) private school in-state, 2) private school out-of-state, 3) publicly funded school in-state, and 4) publicly funded out-of-state. The hypothesis was that the graduating class of 2006 and after would show an increased number of KPS students selecting a publicly funded, in-state institution in order to take advantage of the Promise scholarship.

There is indeed strong evidence that enrollment in Michigan's public institutions increased for KPS students who attend KAMSC relative to non-KPS students who attend KAMSC immediately after the Kalamazoo Promise was announced, with a clear sign of an abrupt shift in 2006 (see Figures 1 and 2). The shift can also be seen if one takes averages of three-year periods in order to smooth the numbers (see Figure 5).

The percentage of KPS KAMSC students attending in-state public institutions grew from 38.6 percent before the Promise to 67.4 percent after the Promise, an increase of 28.7 percentage

points. This represents close to a doubling in the number of KPS KAMSC students opting to enroll at in-state public institutions. The percentage of non-KPS KAMSC students attending in-state public institutions rose as well, but by a much smaller degree, from 48.6 percent to 56 percent, or an increase of 7.4 percentage points. The overall shift (among KPS and non-KPS students) from private to lower-cost public institutions may be related to the recession beginning in 2007 along with the rising cost of college overall. But the sharp increase in the number of KPS students attending Promise-eligible colleges is evident. (The standard error for the KPS increase is 4.7 percent and for the non-KPS students it is 3.3 percent, meaning that these shifts are highly unlikely to have happened purely by chance.)

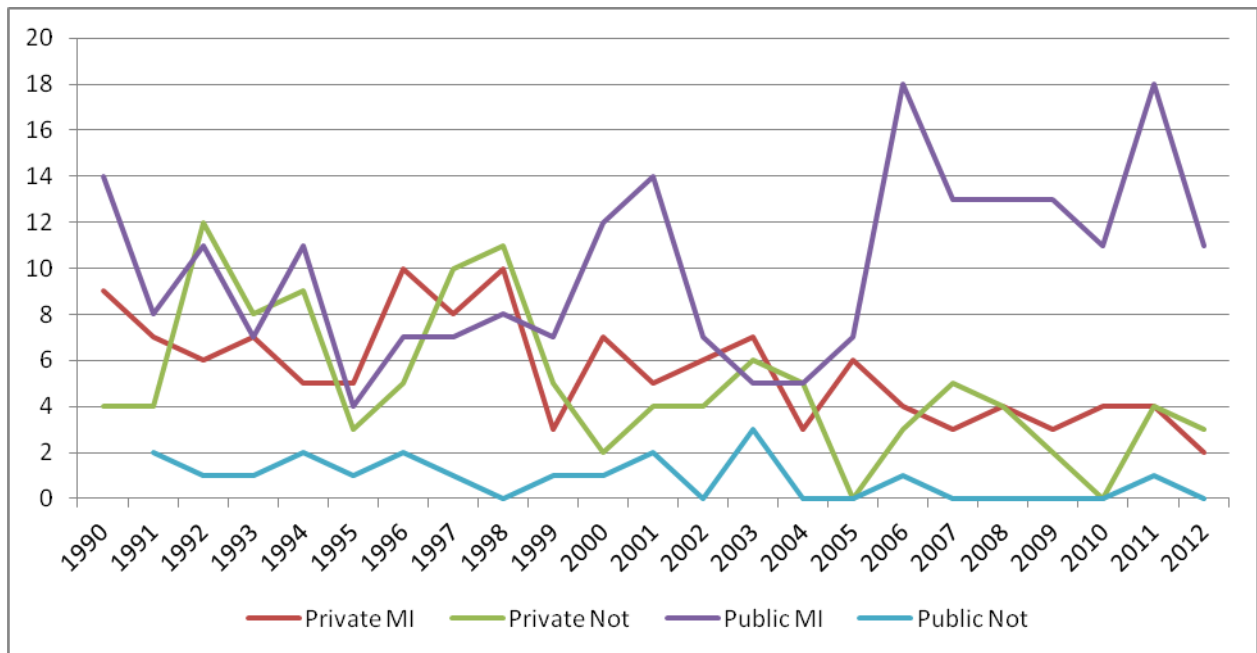


Figure 1 Number of KPS KAMSC Students by Type of College, 1990–2012.

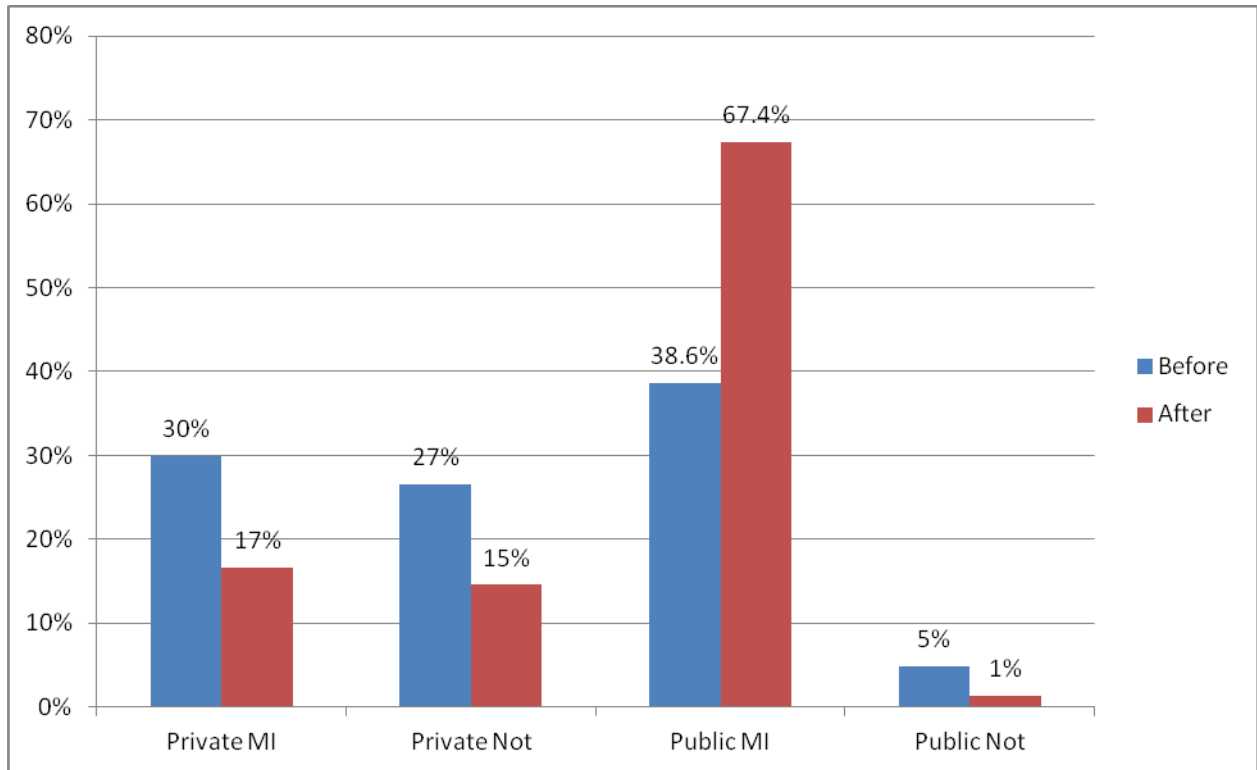


Figure 2 Percentage of KPS KAMSC Students by Type of College before and after the Kalamazoo Promise.

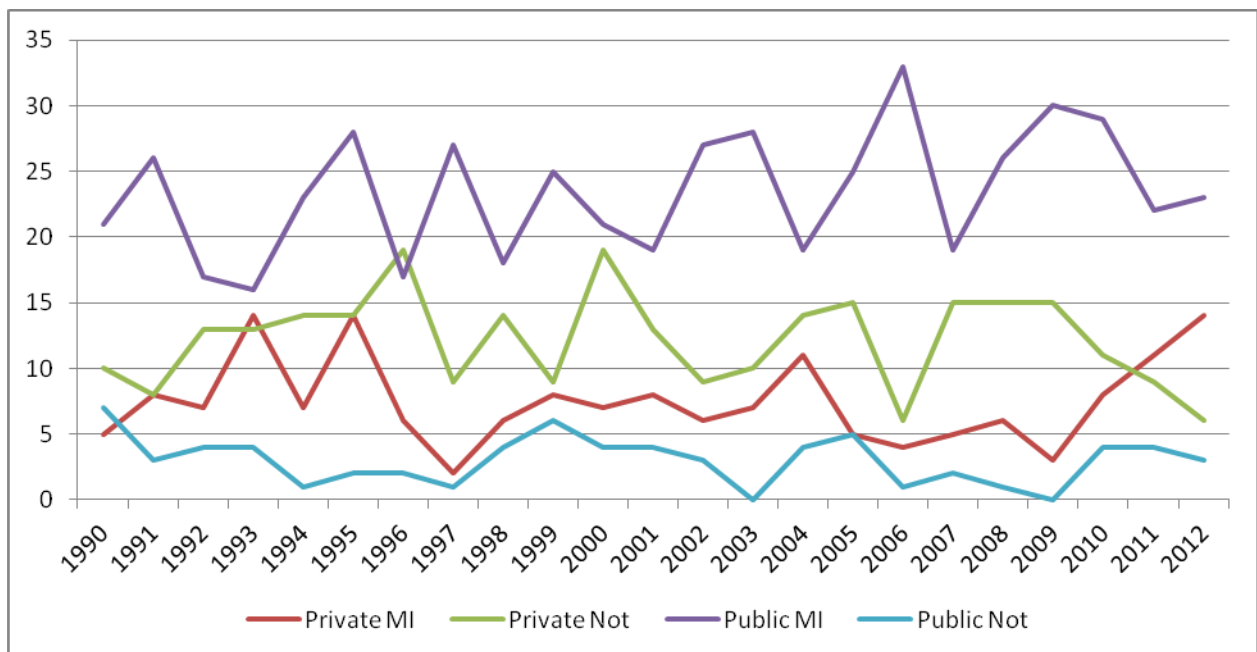


Figure 3 Number of Non-KPS KAMSC Graduates by Type of College, 1990–2012.

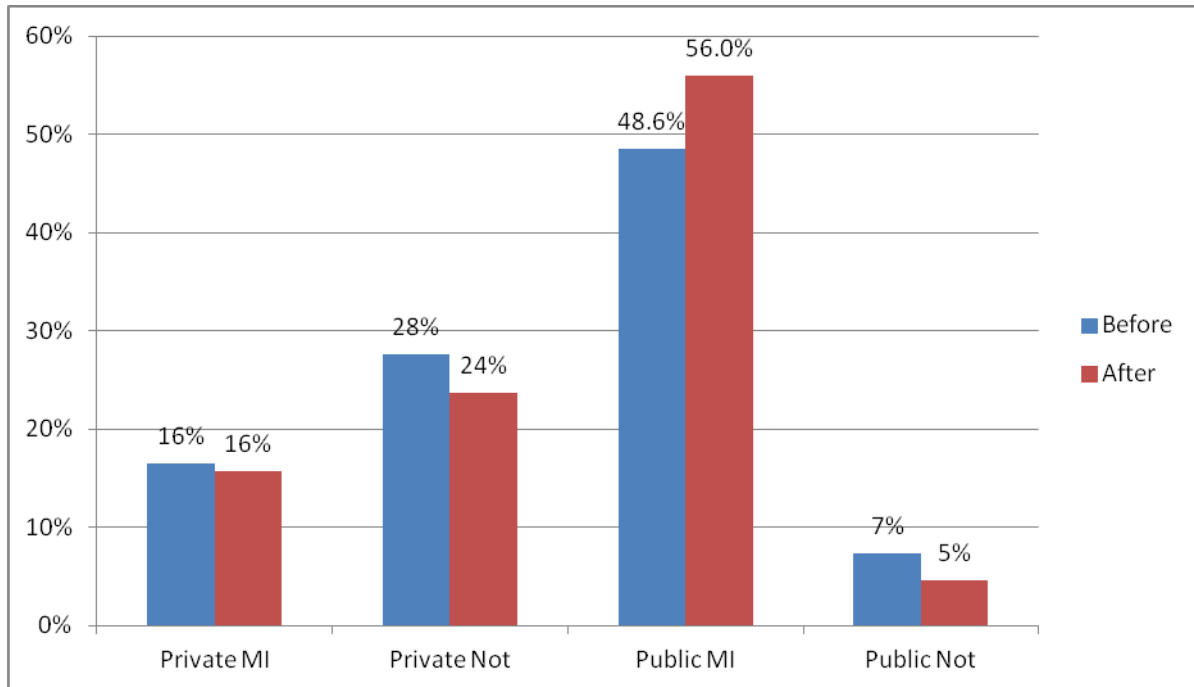


Figure 4 Non-KPS KAMSC Students' College-Going Patterns before and after the Kalamazoo Promise.

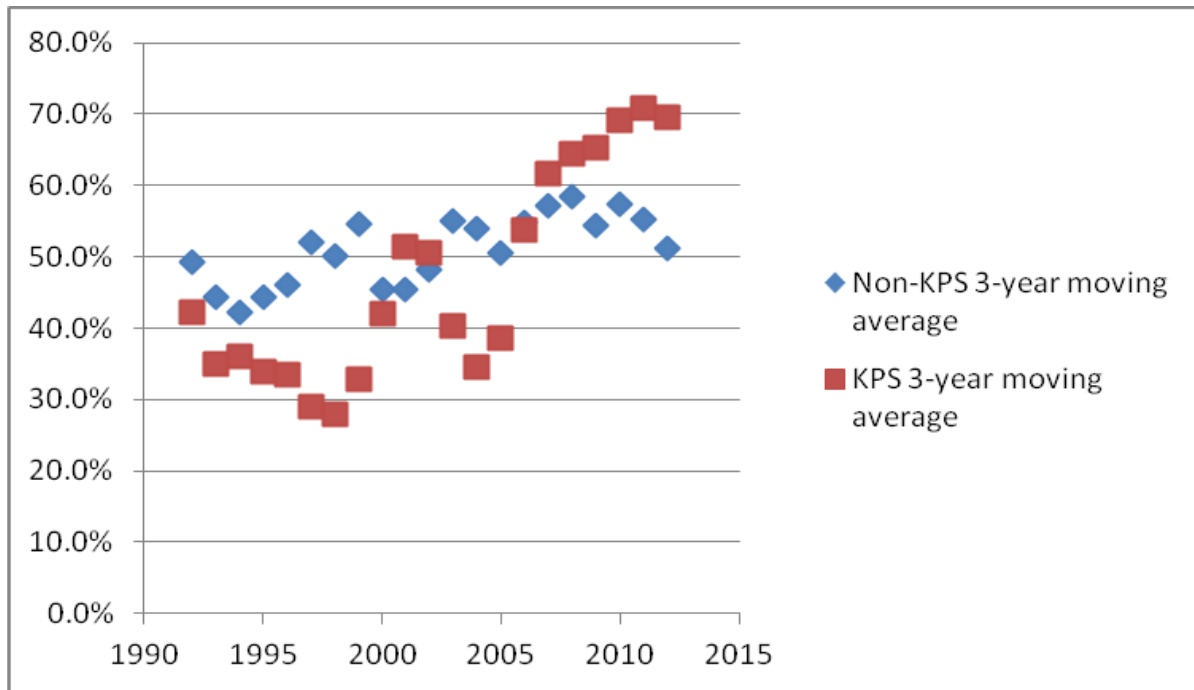


Figure 5 Three-Year Moving Average of Percentage in Public Michigan Institutions, KPS vs. Non-KPS.

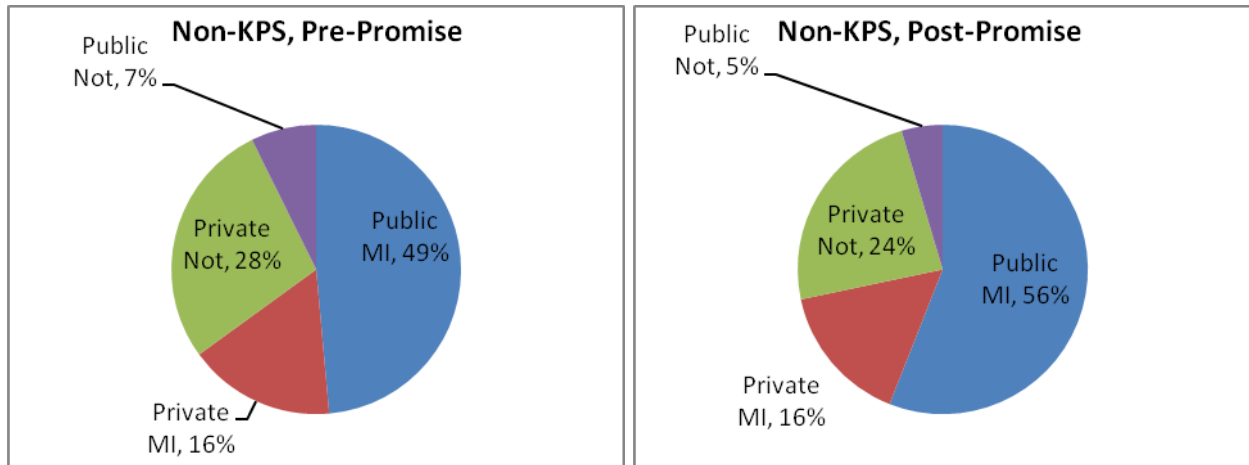


Figure 6 Distribution of Non-KPS KAMSC Students Pre- and Post-Promise.

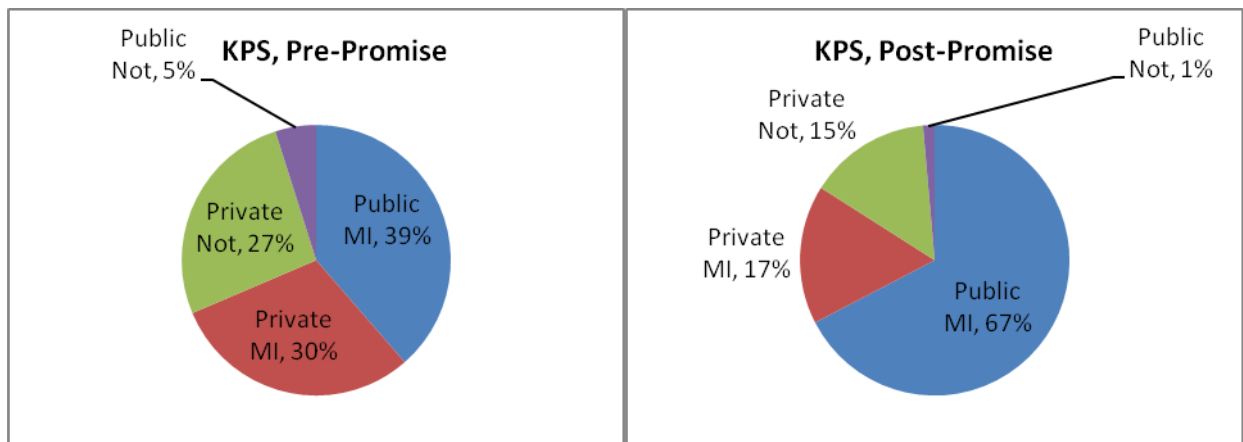


Figure 7 Distribution of KPS KAMSC Students Pre- and Post-Promise.

CONCLUSION

As expected, the incentives created by the Kalamazoo Promise, which covers full tuition and fees for KPS graduates at any public postsecondary institution in Michigan (provided minimum enrollment and residency requirements are met), has induced graduates of KAMSC to shift their college choices in the direction of in-state, public institutions. For the most part, these students are able to gain admission to the state’s most competitive higher education institutions—University of Michigan, Michigan State University, and Michigan Technological

University—and increasingly are choosing them over private or out-of-state options. (It should be noted that this is not a large sample, although the magnitude of the shift is large. In the seven years prior to the introduction of the Promise, 46 KPS KAMSC students attended these three schools, while in the seven years post-Promise, this number increased to 80 students.)

The choice of KPS’s highest achieving students to attend college at public institutions in Michigan has a variety of implications for the state and the community. It is not clear how many of these students will return to Kalamazoo after graduation (or after graduate study); however, it is more likely that students who attend college in the state will remain in-state after graduation compared to students who go out of state to college. Also, the development of increasingly large cohorts of KPS graduates at the state’s top institutions—which extends beyond KAMSC students to Promise-eligible KPS students in general—sends a positive signal to KPS students, families, and the broader community that KPS graduates are able to succeed at top postsecondary institutions.

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