This Data Point uses data from the High School Longitudinal Study of 2009 (HSLS:09), a nationally representative, longitudinal study of more than 23,000 ninth-graders in 2009, to examine the association between the timing of Algebra I coursetaking and enrollment in postsecondary education. HSLS:09 cohort members were asked when they last took Algebra I and whether they had enrolled in a postsecondary institution by February 2016 in the spring of 2016, when most of them were 3 years beyond high school. Readers are cautioned not to draw causal inferences based on the results presented, because the factors that lead to early Algebra I coursetaking could also affect postsecondary enrollment.

**Does postsecondary enrollment vary by when students last took Algebra I?**

The earlier a student successfully completes Algebra I, the more time he or she has to take advanced math and science courses. Additional, taking advanced math courses is associated with attending a 4-year college or university (Long, Conger, and Iatarola 2012; Schneider, Swanson, and Riegle-Crumb 1997).

- A higher percentage of students who last took Algebra I before grade 9 enrolled in a 4-year postsecondary institution compared to students who last took Algebra I after grade 8 (figure 1).
- Similarly, a higher percentage of students who last took Algebra I in grades 9 or 10 enrolled in less-than-4-year postsecondary institutions at higher rates than students who last took Algebra I before grade 9 (figure 1).

**FIGURE 1. Percentage distribution of fall 2009 ninth-graders enrolled in postsecondary institutions by February 2016, by the grade in which they last took Algebra I**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Enrolled in 4-year postsecondary institution</th>
<th>Enrolled in less-than-4-year postsecondary institution</th>
<th>Not enrolled in postsecondary institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 9th grade</td>
<td>19</td>
<td>14</td>
<td>67</td>
</tr>
<tr>
<td>Grade 9</td>
<td>36</td>
<td>21</td>
<td>43</td>
</tr>
<tr>
<td>Grade 10</td>
<td>49</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>Grades 11–12</td>
<td>51</td>
<td>26</td>
<td>23</td>
</tr>
</tbody>
</table>

NOTES: Detail may not sum to totals because of rounding.
Does the timing of Algebra I coursetaking vary by race/ethnicity?³

- A higher percentage of Asian students last took Algebra I before grade 9 (54 percent) than did White (33 percent), Hispanic (23 percent), or Black (15 percent) students (figure 2).
- Black students reported the lowest percentage of Algebra I coursetaking before grade 9 (15 percent) (figure 2).
- Black and Hispanic students reported higher rates of Algebra I coursetaking in grade 9 (70 percent and 65 percent, respectively) than did White (57 percent) and Asian (41 percent) students (figure 2).

Endnotes

1 The data presented in this Data Point on when a student last took Algebra I do not necessarily indicate successful completion of Algebra I.

2 Reporting standards were not met for the less than 1 percent of students who never took Algebra I. Those students have been excluded from the analyses in this Data Point.

³ Consistent with the overall population, less than 1 percent of students in each race/ethnicity category never took Algebra I. Thus, the data reported represent more than 99 percent of students of White, Black, Hispanic, and Asian race/ethnicity.

References
