

Technical Notes

Education Detours to the Workforce

These technical notes are supplemental information for the “Education Detours to the Workforce” report that investigates the three levels of student departures from high school (PS) and postsecondary (PS) education in the state of Kentucky. The report used data from the Kentucky Longitudinal Data System (KLDS), which includes data from the Council on Postsecondary Education (CPE), the Kentucky Department of Education (KDE), the Kentucky Adult Education System (KAERS), and the Unemployment Insurance System (UI). More specifically 2010 AY¹ HS seniors in KDE were matched from 2010 to 2016 with late HS graduates and incarcerated HS graduates in KAERS, college enrollment from CPE, and reported wage data and industry between 2011 and 2016 in the UI system.

A dichotomous variable was built to indicate HS seniors had graduated during their 2010 senior year. It should be noted that this indicator includes a limitation that students who graduated after repeating their senior year in 2010 were included in this ‘on-time graduates’ indicator. Additional annual indicators were built for 2011 to 2016:

- To signify a student earned their HS diploma or its equivalent and what year this was completed (continuous)
- Calculating the cumulative education or highest degree awarded (NULL, ‘some college,’ ‘certificate/diploma,’ ‘associate,’ or ‘bachelor or higher’)(ordinal)
- Signifying a 2010 senior was employed during the year (dichotomous)
- Signifying a 2010 senior was employed *all four quarters* for that particular year (dichotomous)
- Signifying which industry employed the 2010 senior the most during any particular year (nominal)

The three education detours under investigation in the Education Detours to Workforce report are...

1. the **HS detour**; 2010 seniors that did not graduate HS in 2010
2. the **post-HS detour**; 2010 seniors that graduated HS in 2010 but did not enroll in a PS institution by the end of 2011 AY
3. the **PS detour**; 2010 HS seniors that graduated in 2010 and enrolled in a PS institution by the end of 2011 but did not earn a certificate/diploma, associate degree, or bachelor degree ‘or higher’ within their target time lengths of 1 year, 2 years, and 4 years, respectively

HS Detours

Using KDE data, a filter for 2010 HS seniors that did not graduate in 2010 supplied the sub-population of interest. This group was matched in KAERS to further break down into various HS education attainments by the 2016 AY (GED, GED while incarcerated, late graduate, and no graduation). Additionally, the UI system provided the data used to assess annual median wages (for those reporting wages), the employment rate for this group each year, and 2010 seniors that lacked all employment and wage data in an effort to identify student exhibiting signs of having left the state of Kentucky. This latter group of students lacking data from 2011-2016 were identified as a group and, by nature of having no data, were excluded from the two former groups and comparisons with the other two detour groups.

Post-HS Detours

¹ Academic Year (AY) encompasses the Summer, Fall, and Spring terms of enrollment, such that Fall of the 2009 calendar year belongs to the 2010 AY.

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Using CPE data, a filter for 2010 HS graduates *not* enrolled in college by the end of the 2011 AY identified the sub-population of interest. The remaining sub-population was further detailed by identifying students having enrolled in college but not earning a degree, earned a 'certificate/diploma,' earned an 'associate degree,' or earned a 'bachelor [degree] or higher' between 2010 and 2016. The UI system provided the data used to assess annual median wages (for those reporting wages), and the employment rate for this group each year.

PS Detours

Using CPE data, a filter for 2010 HS graduates enrolled in college by the end of the 2011 AY identified the sub-population of interest. An additional filter was used to exclude college-going HS graduates that earned certificates and/or degrees within their target time lengths (1 year, 2 years, and 4 years, depending). Identified for exclusion were 2010 HS graduates enrolled in college in 2011 that did not earn a 'bachelor [degree] or higher' by end of the 2015 AY, an 'associate degree' by end of the 2013 AY, and a 'certificate/diploma' by end of the 2012 AY. The remaining sub-population was further detailed by identifying students who had no credentials by 2016, had earned a 'certificate/diploma' between 2013 and 2016 as their highest degree, had earned an 'associate degree' between 2014 and 2016 as their highest degree, or earned a 'bachelor [degree] or higher' in 2016. The UI system provided the data used to assess annual median wages (for those reporting wages) and the employment rate for this group each year.