### "Knocking at the College Door" and More:

A review of higher education demographic trends and projections in the United States



#### **EXECUTIVE LEADERSHIP FORUM**



Andrew B. Palumbo
Dean of Admissions & Financial Aid

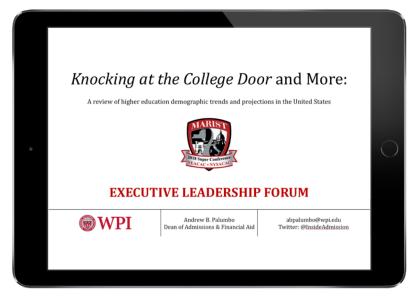
### Goals for today's discussion

- Review the history of U.S. high school graduate & college enrollment trends
- Understand WICHE's Knocking at the College Door projections
- Learn about emerging Higher Education Demand Index
- Consider the implications & opportunities of demographic enrollment projections
- Tee-up breakout conversations



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### Want to follow along on your device?



Download the slide deck at andrewbpalumbo.com/knocking



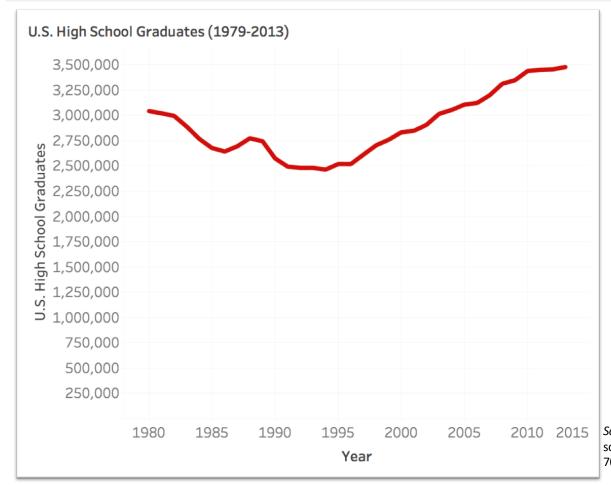
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### U.S. College Enrollment Trends

The recent history of growth & changes in enrollment



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As the U.S. high school population shifted from the "Baby Boomers" to a smaller "Generation X," the number of U.S. high school graduates decreased in the 1980s & 1990s.

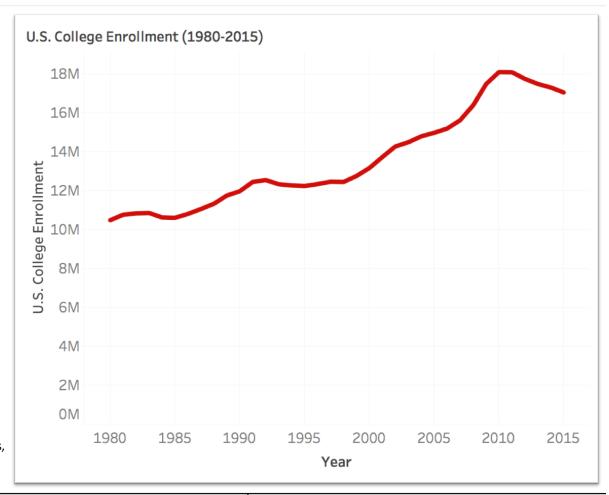
*Source*: National Center for Education Statistics, <u>Table 219.10</u>. High school graduates, by sex and control of school: Selected years, 1869-70 through 2025-26



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Despite a smaller number of U.S. high school graduates, college enrollment climbed steadily in the 1980s & 1990s and growth accelerated from 1999-2013.

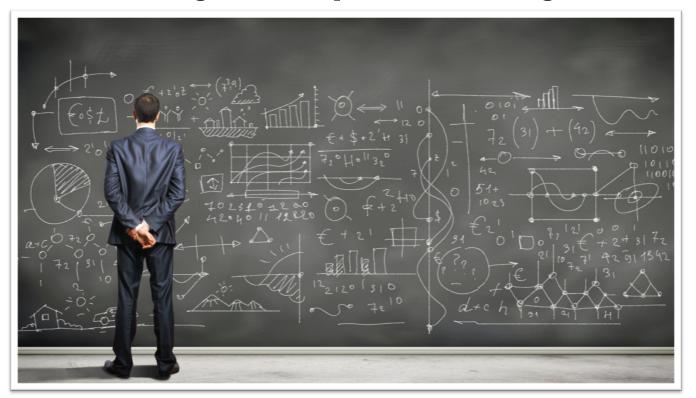
*Source*: National Center for Education Statistics, <u>Table 303.70</u>. Total undergraduate fall enrollment in degree-granting postsecondary institutions, by attendance status, sex of student, and control and level of institution: Selected years, 1970 through 2026





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# Why didn't U.S. college enrollment decrease as domestic high schools produced fewer graduates?





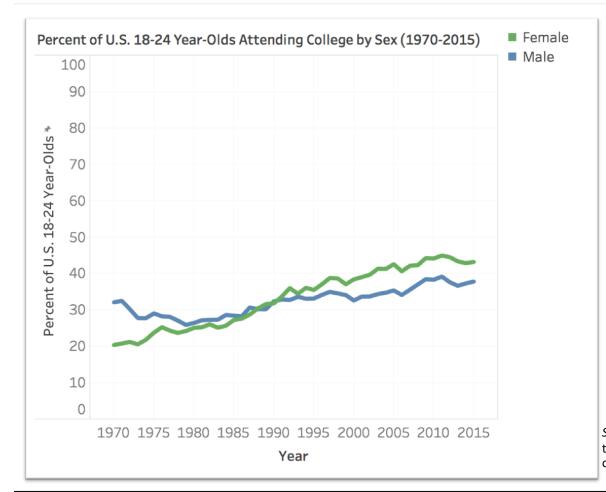
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# One reason for continued U.S. college enrollment growth... *more women in the U.S. attended college*.





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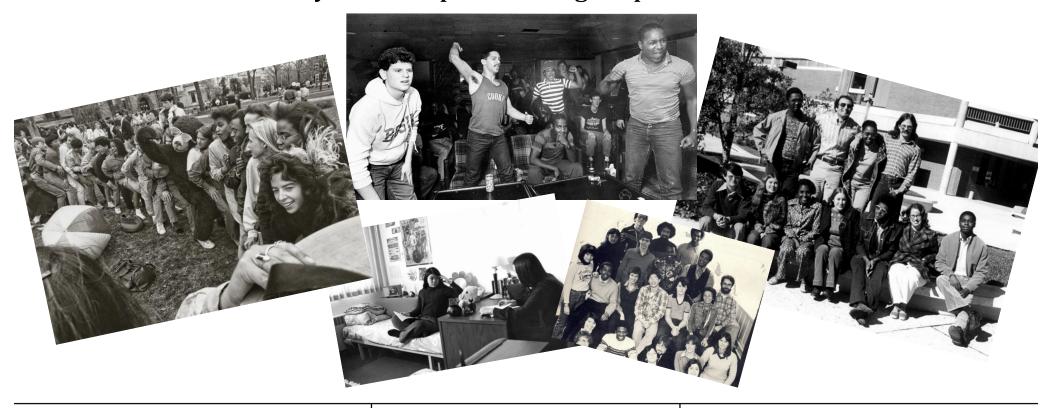
Percent of men enrolled in college dipped in 1970s & 1980s as the enrollment of women climbed and, eventually, surpassed men in the early 1990s.

*Source*: National Center for Education Statistics, <u>Table 302.60</u>. Percentage of 18-to 24-year-olds enrolled in degree-granting postsecondary institutions, by level of institution and sex and race/ethnicity of student: 1970 through 2015



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In addition to women, *access to higher education was broadened* to other historically underrepresented groups of U.S. students.



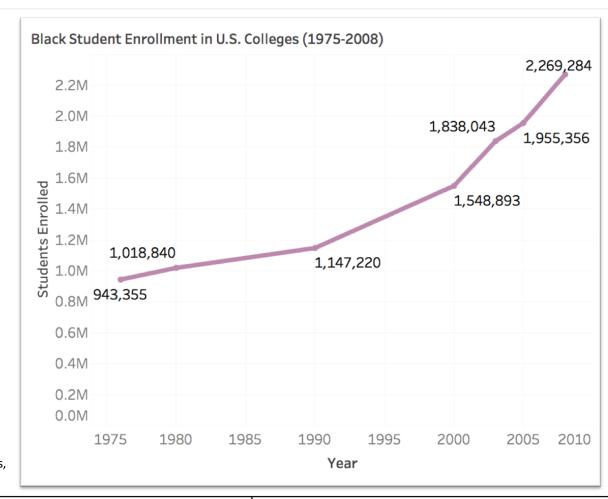


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Black student enrollment increased 22% from 1975-1990.

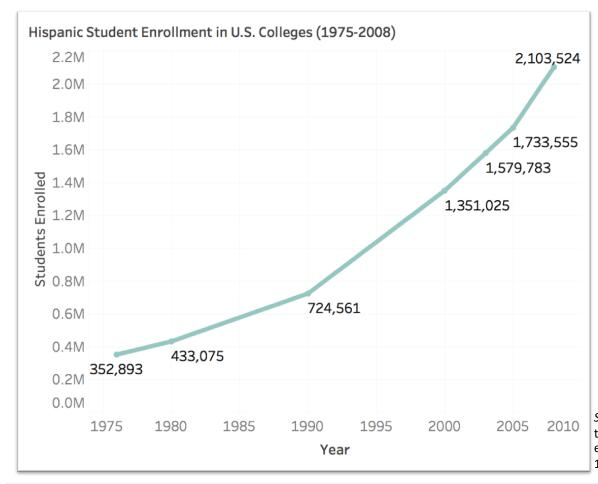
Growth accelerates over the next 18 years as the number of black college students nearly doubles between 1990 and 2008.

*Source*: National Center for Education Statistics, <u>Table 24.1</u>. Total number, total percentage distribution, and percent female of undergraduate fall enrollment in degree-granting institutions, by race/ethnicity: Selected years, 1976–2008





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Hispanic student enrollment explodes during the same time period.

Hispanic college enrollment doubles from 1975-1990; it then nearly triples from 1990-2008.

Source: National Center for Education Statistics, <u>Table 24.1</u>. Total number, total percentage distribution, and percent female of undergraduate fall enrollment in degree-granting institutions, by race/ethnicity: Selected years, 1976–2008

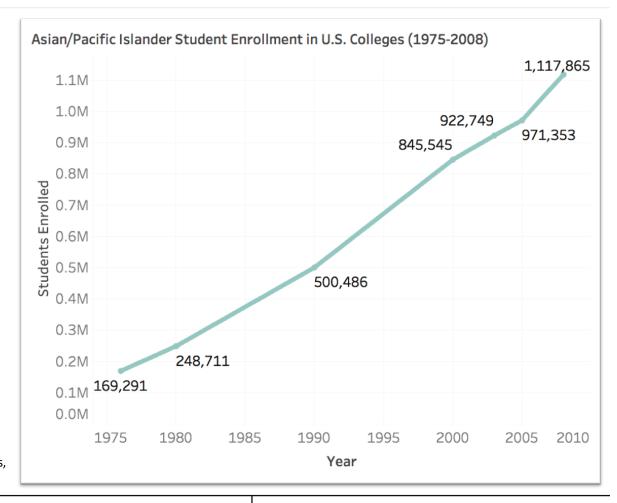


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Asian/Pacific Islander enrollment nearly triples between 1975 and 1990.

1975-2008: Asian/Pacific Islander enrollment increases by more than 650%

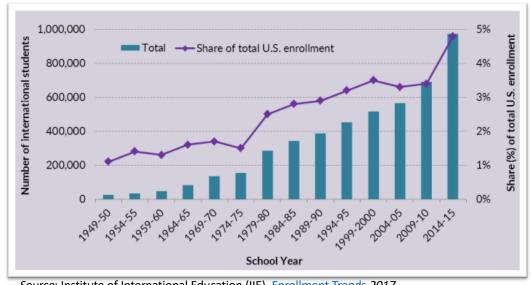
*Source*: National Center for Education Statistics, <u>Table 24.1</u>. Total number, total percentage distribution, and percent female of undergraduate fall enrollment in degree-granting institutions, by race/ethnicity: Selected years, 1976–2008





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## As U.S. college enrollment became more diverse, *international enrollment* also increased rapidly during this time.



Source: Institute of International Education (IIE), Enrollment Trends 2017

Open Doors Report

From 1975-1990, international enrollment increased 145% from 155,000 to 379,000.

Between 1975 and 2008, international enrollment at U.S. colleges has nearly tripled.



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U.S. college enrollment growth has bucked recent periodic declines in domestic high school graduates by **broadening access to a college education**.





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# What can current projections tell us about what U.S. college enrollment will look like in the years ahead?





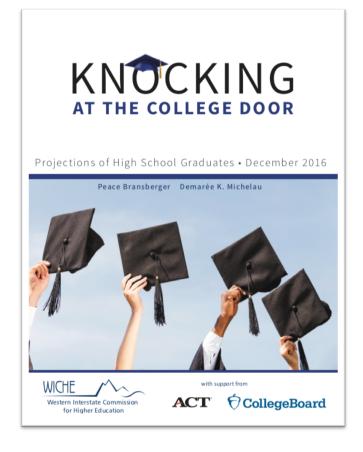
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### "Knocking at the College Door"

Understanding the WICHE study, its projections, and assumptions



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## Western Interstate Commission for Higher Education (WICHE)

Has produced projections of high school graduates for four decades

9<sup>th</sup> Edition of Knocking at the College Door released December 2016

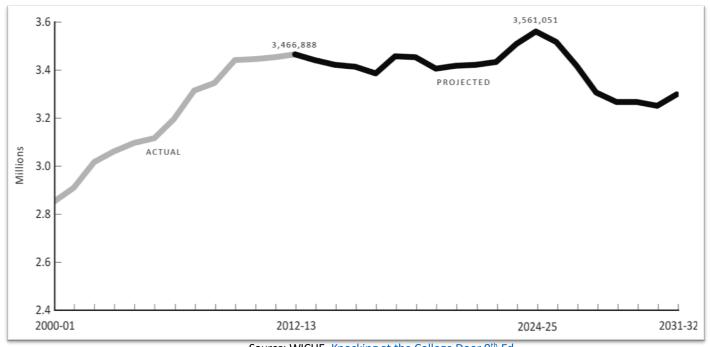
WICHE provides projections for:

National high school graduation
Public & private high school graduation
Regional high school graduation
Racial/ethnic composition of public high school graduation
K-12 enrollment trends



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# After 15 years of growth, the *number of U.S. high school graduates plateaus.*

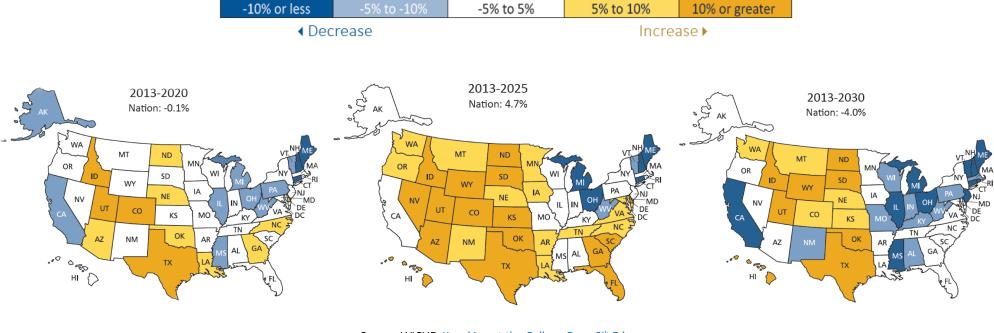


Source: WICHE, Knocking at the College Door 9th Ed.



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Comparisons to previous enrollment peak in 2013, illustrate the highs & lows of WICHE projections.



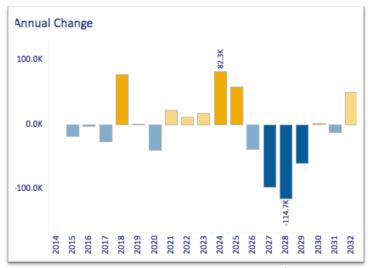
Source: WICHE, Knocking at the College Door 9th Ed.



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#### Key national trends in high school graduate projections (2014-2032):

- Projected graduates from 2014-2023 will average 3.4M
  - Each year will have fewer graduates than the previous high in 2013
- Graduates peak in 2026 at 3.56M
- 3.3M graduates in 2032; roughly equivalent to 2008

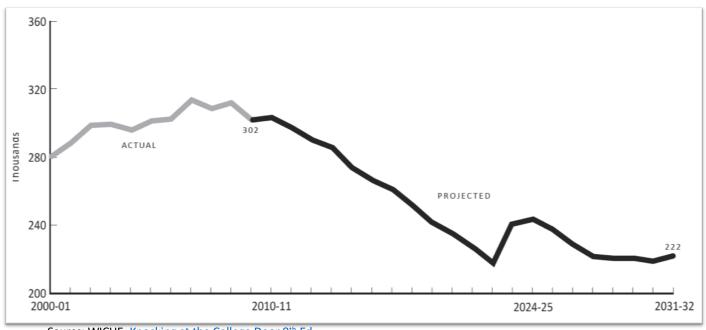


Source: WICHE, Knocking at the College Door 9<sup>th</sup> Ed., Interactive Dashboard



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# **Private high school graduates will decline at a faster rate** than public high school graduates.



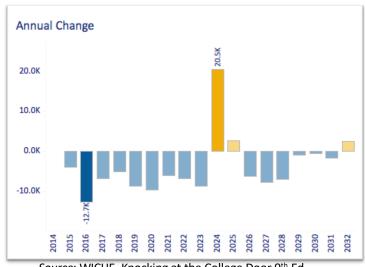
Source: WICHE, Knocking at the College Door 9th Ed.



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#### Key national trends in private high school graduate projections (2014-2032):

- 302k private high school graduates in 2011
  - WICHE projects a decrease of over 80k students (26%) by the early 2030s.
- Graduates hit a low of 218k in 2023
- Graduates do not rebound to levels seen in early 2000s
- 222k graduates in 2032

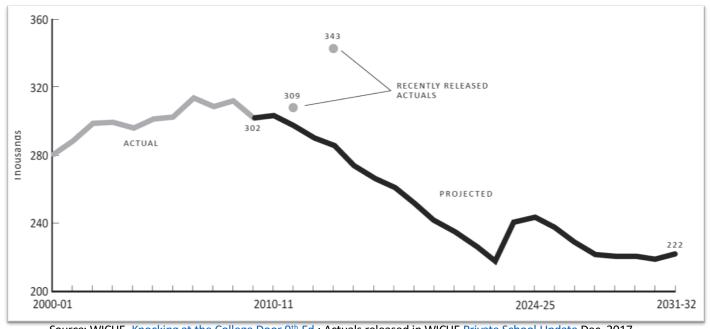


Source: WICHE, Knocking at the College Door 9<sup>th</sup> Ed., Interactive Dashboard



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# **Projections are not perfect.** One year after releasing *Knocking* 9<sup>th</sup> Ed., **new private school graduate data raises questions about projections.**

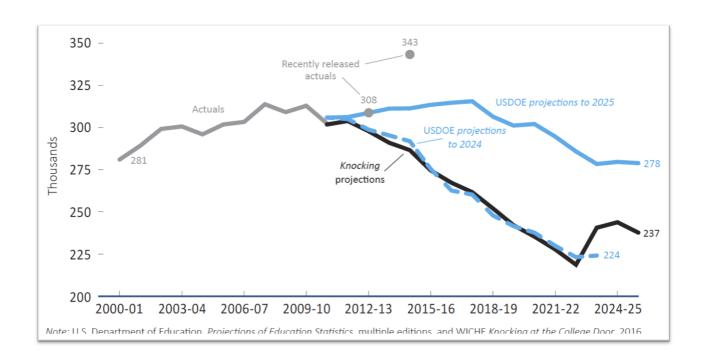


Source: WICHE, Knocking at the College Door 9th Ed.; Actuals released in WICHE Private School Update Dec. 2017



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Two years of unexpectedly high private school data illustrate a weakness in projections; *Projections are only as good as the data available.* 





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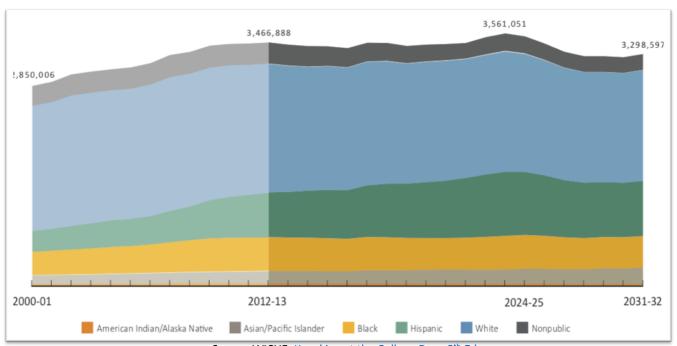
# WICHE does not plan to release updated private school graduation projections.

- No single factor explains the underprediction of private school graduates in 2012 & 2013.
  - U.S. Dept. of Education staff suggests that decreases in 2008 2011 are likely a reaction to the Great Recession
    - Private school enrollment rebounds from 2012-2016 are believed to be a result of economic recovery.
- WICHE determined that the data is too volatile to do a revised projection for private schools
  - The next projection will be in 4-5 years with the 10<sup>th</sup> Edition of *Knocking at the College Door*



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## U.S. high school graduate population is projected to become more racially/ethnically diverse.

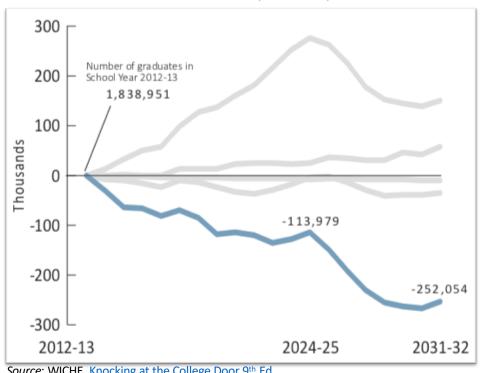


Source: WICHE, Knocking at the College Door 9th Ed.



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#### **Projected Change in White High School Graduates (2013-32)**



From 2013 to 2032, white graduates decrease 14%.

This is the sharpest decrease of all groups.

Source: WICHE, Knocking at the College Door 9th Ed.

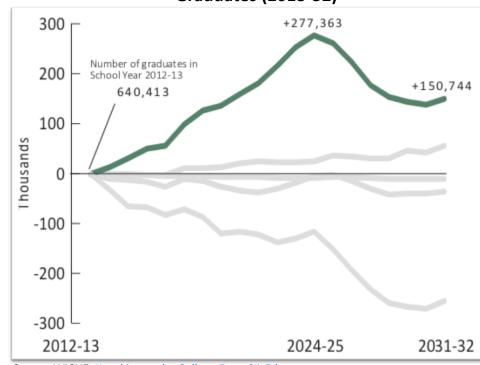


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In the 12 years between 2013 and 2025, *Hispanic graduates* increase 43%.

This group eventually settles at 791,000 in 2032; *an increase of* **24% over 2013.** 

### Projected Change in Hispanic High School Graduates (2013-32)

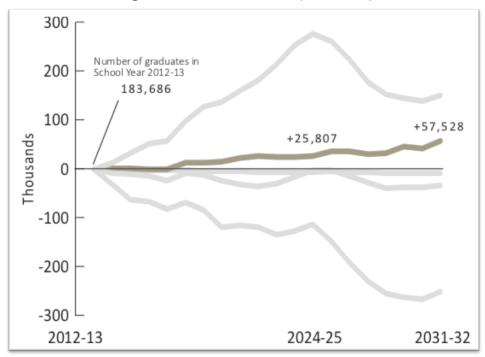


Source: WICHE, Knocking at the College Door 9th Ed.



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#### Projected Change in Asian/Pacific Islander High School Graduates (2013-32)



Asian/Pacific Islander graduates projected to grow steadily.

By 2032, Asian/Pacific Islander graduates will increase by 31%.

Source: WICHE, Knocking at the College Door 9th Ed.

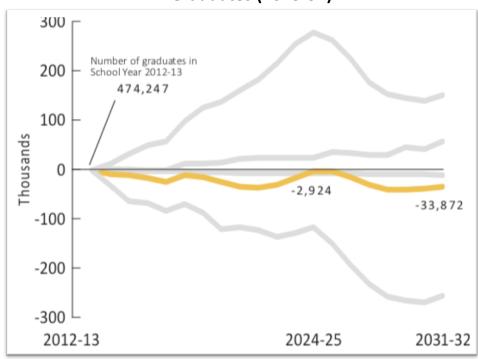


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In the 12 years following 2013, Black graduates decrease slightly before rebounding in 2025.

In 2032, Black graduates have decreased 7% from the 2013 level.

### Projected Change in Black High School Graduates (2013-32)

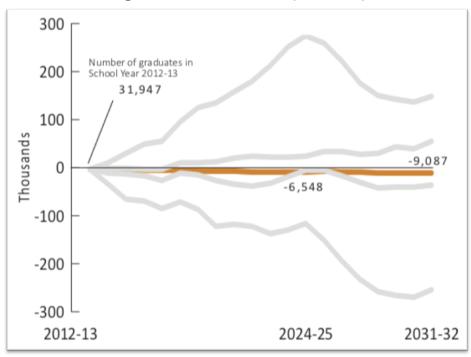


Source: WICHE, Knocking at the College Door 9th Ed.



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#### Projected Change in American Indian/Alaska Native High School Graduates (2013-32)



American Indian/Alaska Native graduates are the smallest group at 31,947 in 2013.

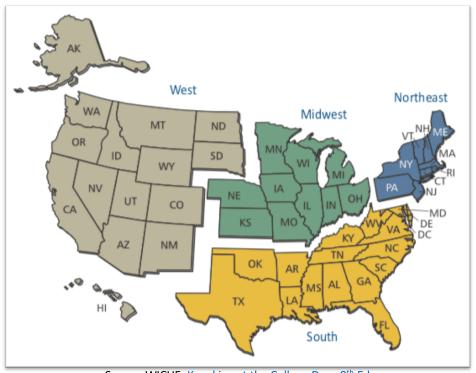
American Indian/Alaska Native Graduates decrease 28% by 2032.

Source: WICHE, Knocking at the College Door 9th Ed.



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#### Knocking at the College Door divides the U.S. into four distinct regions.



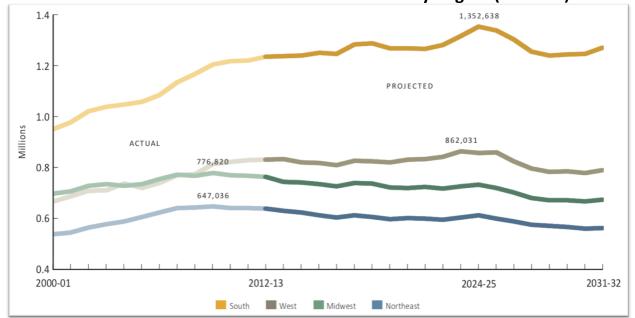
Source: WICHE, Knocking at the College Door 9<sup>th</sup> Ed.



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Projected graduate trends vary greatly by region resulting in "winners" and "losers".





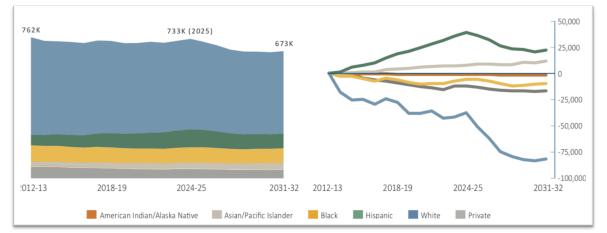
Source: WICHE, Knocking at the College Door 9th Ed.



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## The Midwest will experience a *decrease of 93,000 high school graduates* (12%) between 2013 and 2030.

#### Public and Private Midwest Region Graduates by Race/Ethnicity (2013-32)



Source: WICHE, Knocking at the College Door 9th Ed.

#### **Midwest Graduates:**

2013: 762k

2032: 673k

Drops to 19% of all graduates by 2030



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# The Northeast will experience a decrease of 72,000 high school graduates (11%) between 2013 and 2030.

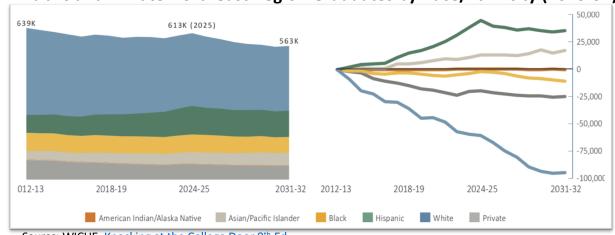
#### **Northeast Graduates:**

2013: 639k

2032: 563k

Represents 16% of graduates by early 2030s

#### Public and Private Northeast Region Graduates by Race/Ethnicity (2013-32)



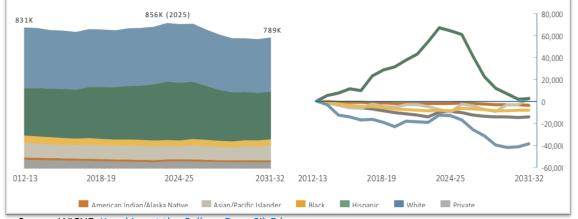
Source: WICHE, Knocking at the College Door 9th Ed.



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# The West will **reach a new high-point of 860,000 high school graduates in 2024** before dropping to **29,000 fewer graduates than 2013 in early 2030s.**

#### Public and Private West Region Graduates by Race/Ethnicity (2013-32)



Source: WICHE, Knocking at the College Door 9th Ed.

#### **West Graduates:**

2013: 813k

2032: 784k

28% of graduates in the early 2030s



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The South will see the largest growth in high school graduates during the WICHE projections; the region will increase by 60,000 graduates by 2032.

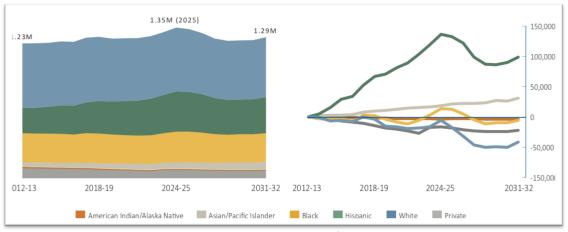
#### **South Graduates:**

2013: 1.23M

2032: 1.29M

Increases to 45% of high school graduates by 2032.

#### Public and Private South Region Graduates by Race/Ethnicity (2013-32)



Source: WICHE, Knocking at the College Door 9th Ed.



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## Higher Education Demand Index

Nathan D. Grawe's new take on higher education demographic projections



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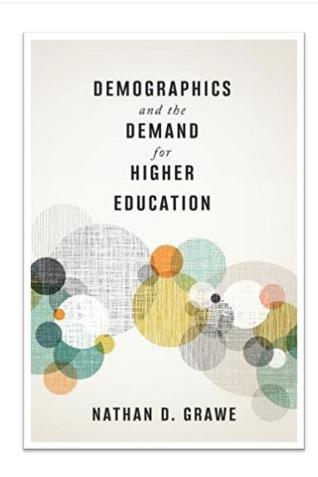
Nathan D. Grawe Professor of Economics Carleton College

- Carleton College labor economist
- Specializes in the impact family background has on education attainment
- Suggests a more precise way to predict future college enrollment than WICHE's high school graduation projection
- Publishes a book in December 2017 outlining his model



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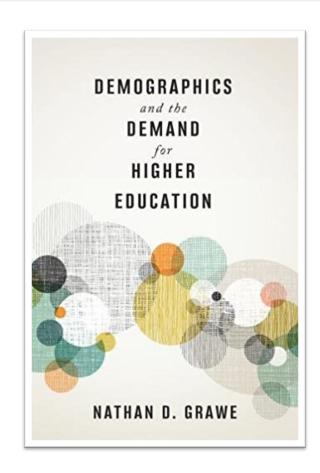
- Grawe created a projection formula called the Higher Education Demand Index (HEDI)
- HEDI doesn't assume future collegegoing rates will mirror today's rates
- Instead, HEDI uses more advanced demographic analysis
- HEDI also considers attendance by college type





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- Demographic factors used in HEDI to create specific probabilities:
  - Geographic location
  - Sex
  - Race/ethnicity
  - Parent education
  - Family income
  - Family structure
  - Nativity
- Probabilities are applied to Census Bureau data to establish projections

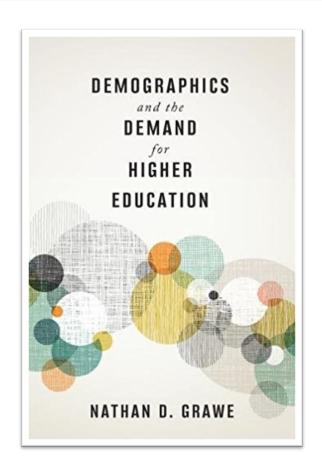




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Grawe's formula forecasts growth in some areas not covered by *Knocking at the College Door*:

- College-going students
- 18-year-olds by parental education

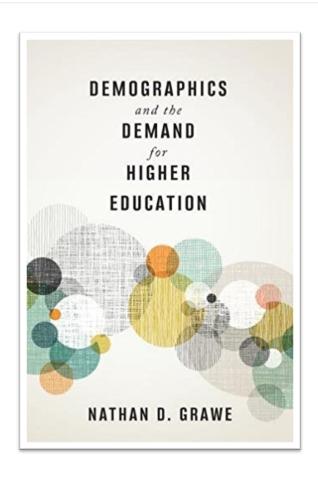




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HEDI also provides projected probability of attendance at four types of colleges:

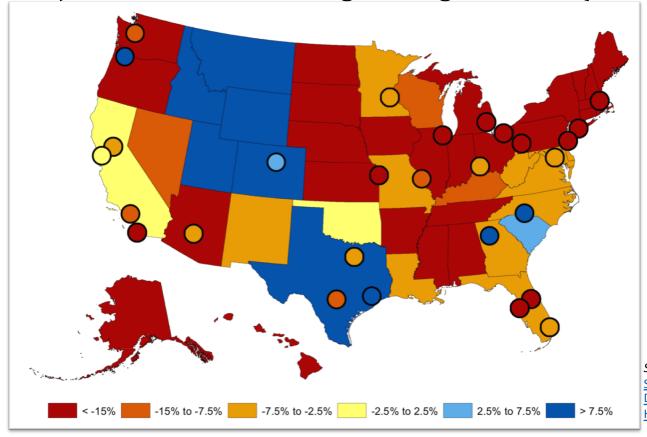
- Two-year institutions
- Regional four-year institutions
- National four-year institutions
- Elite four-year institutions





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### HEDI Projected Growth in College-Going Students (2012-2029)

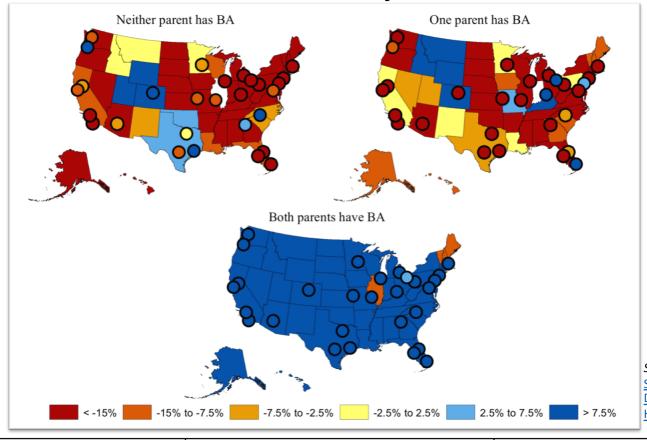


Source: Nathan D. Grawe,
Supplemental Material for
Demographics and the Demand for
Higher Education



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### HEDI Projected Growth in 18-Year-Olds by Parental Education (2012-2029)

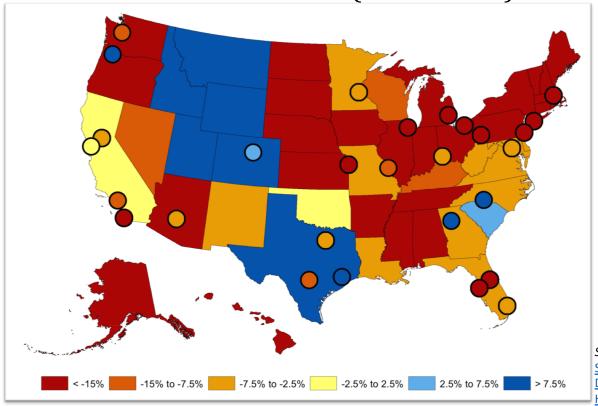


Source: Nathan D. Grawe,
Supplemental Material for
Demographics and the Demand for
Higher Education



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HEDI Projected Growth in Students Attending Two-Year Institutions (2012-2029)

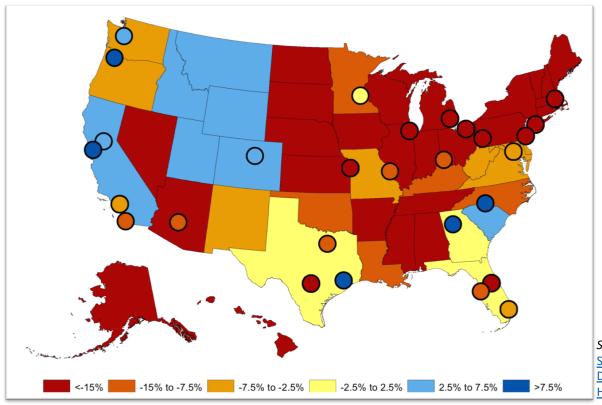


Source: Nathan D. Grawe,
Supplemental Material for
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Higher Education



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## HEDI Projected Growth in Students Attending Four-Year Regional Institutions (2012-2029)



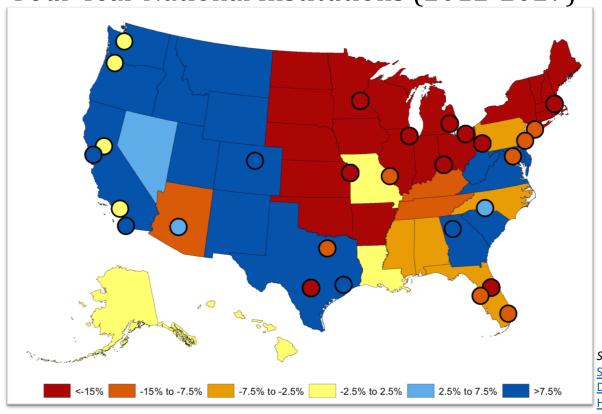
Source: Nathan D. Grawe,
Supplemental Material for
Demographics and the Demand for





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## HEDI Projected Growth in Students Attending Four-Year National Institutions (2012-2029)

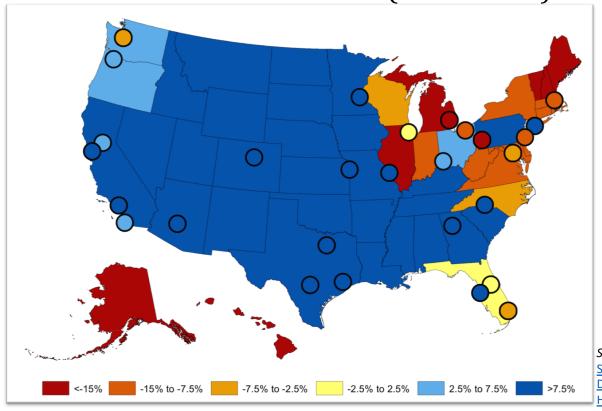


Source: Nathan D. Grawe,
Supplemental Material for
Demographics and the Demand for
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## HEDI Projected Growth in Students Attending Four-Year Elite Institutions (2012-2029)



Source: Nathan D. Grawe,
Supplemental Material for
Demographics and the Demand for

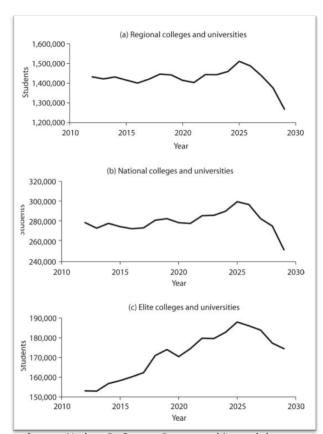
Higher Education



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#### Grawe's "Good News"

- "Modest enrollment increases over the next decade before a significant contraction begins in mid-2020s"
- Highest-ranked schools will avoid enrollment & budgetary implications



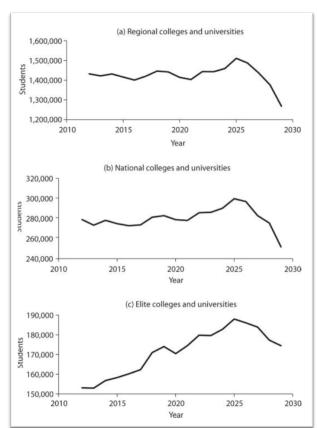
Source: Nathan D. Grawe, Demographics and the Demand for Higher Education



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#### Grawe's "Good News"

- HEDI is only projecting increased demand for elite colleges
- Elite colleges unlikely to grow enrollment
- Second-tier institutions can be beneficiaries of increased demand for elite colleges



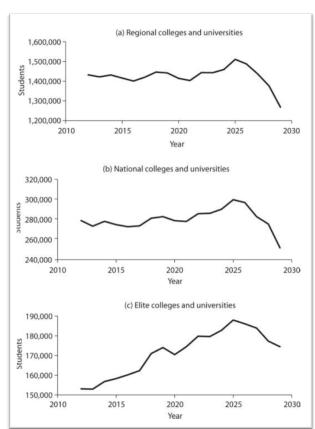
Source: Nathan D. Grawe, Demographics and the Demand for Higher Education



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#### Grawe's "Bad News"

- HEDI projects 10% fewer college-going students, nationally, by 2029
- College enrollment is a zero-sum game; there are winners and losers



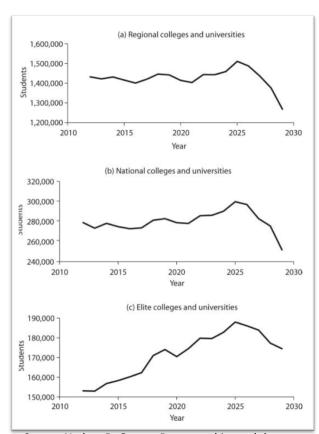
Source: Nathan D. Grawe, Demographics and the Demand for Higher Education



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#### Grawe's "Bad News"

 Since increased parental education results in greater demand for elite colleges, the decrease in demand for less-selective institutions is compounded



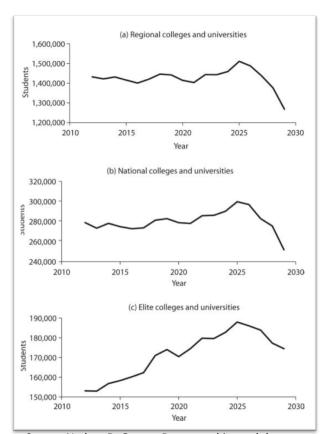
Source: Nathan D. Grawe, Demographics and the Demand for Higher Education



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#### Grawe's "Bad News"

 Less-selective schools are highly regional and, as a result, have less opportunity to diversify geographic reach; more susceptible to regional demographic declines



Source: Nathan D. Grawe, Demographics and the Demand for Higher Education



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### Grawe's Silver Lining



Source: Nathan D. Grawe interview with Inside Higher Ed, January 2018

"Ultimately, the HEDI forecasts aren't intended to be "right" so much as to put a spotlight on challenges that lie on our current path.

In fact, I hope that schools respond to the information in the model with better retention policy or new recruitment strategies and so survive or thrive despite demographic hurdles. This would make the forecasts look wrong by putting them to good use."



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## Implications & Opportunities

Translating demographic enrollment projections into context and action



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Over the next fourteen years, the college recruitment landscape will change dramatically:

- There will be a *smaller and more diverse group of domestic* high school graduates.
- Unlike in the 1970s and 1980s, colleges are unlikely to experience unanticipated new enrollment market growth that will sustain rapid growth.
- The **South and the West** will, increasingly, **represent a larger share of domestic high school graduates**.



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Over the next fourteen years, the college recruitment landscape will change dramatically:

- Competition among colleges & universities will continue to increase
- Costs to recruit students and discount-rates are likely to climb
- Some colleges will be forced to downsize, merge, or close



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#### College counselors will see new challenges and opportunities:

- Regionally, counselors may experience larger or smaller classsizes and, in some cases, shrinking enrollment could lead to high school mergers/closures and budget issues.
  - Shrinking public schools could be forced to merge into regional districts.
  - Private schools may face increased international enrollment, downsizing, mergers, and closures
  - Private K-12 becoming less tenable as families make financial decision to attend private school later and/or save for college
  - Demographic changes have a stronger impact on day schools due to the regional nature of the population



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College counselors will see new challenges and opportunities:

- Changes in the racial/ethnic makeup of school populations may require greater cultural awareness and support at schools that are historically less-diverse.
- As college enrollment stagnates, individual students will likely find *greater odds in the admissions process at many institutions*.
- With heightened competition for enrollment, students are likely to enjoy greater discount at many colleges and likely will have greater "bargaining power".



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#### College counselors will see new challenges and opportunities:

- Students are likely to experience more diverse environments in high school and college as a result of macro-level demographics.
- More than ever, college counselors need to know the quality and stability of colleges as they are advising students.



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## Are the projections fate?

- Despite some grim domestic demographics, colleges still have opportunities to increase college enrollment locally and nationally.
  - Factors that can impact projections include:
    - · High school graduation rate
    - College attendance of 18 year-olds
    - Nontraditional enrollment
    - International enrollment
    - Creation new programs targeting life long learning
    - Migration (to a college's state/region)
    - Immigration



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# Projections are not necessarily the "worst case" scenario, either.

- We can't assume that major factors in college enrollment will be sustained or increased:
  - High school graduation rate
  - College attendance of 18 year-olds
  - Nontraditional enrollment
  - International enrollment
  - Migration (from a college's state/region)
  - The perceived value of a college education



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### **Breakout Discussions**



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## **BREAKOUT DISCUSSIONS**



### **EXECUTIVE LEADERSHIP FORUM**