

# How Is My Institution Going to Survive the Coming Demographic Cliff?

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# Demography is Destiny?

- **Demography has always shaped higher education**
- **We are now in the midst of a demographic shift that stands to rival anything in the past — but so far it is not capturing our consciousness**
  - **Rarely do we have so much advance notice of an important change**
  - **What will we do with the time we have?**
- **This is the moment of truth for higher education planners**

# Learning Outcomes

- **Analyze existing evidence to situate your institution in this complex and challenging new reality**
- **Present the implications of the coming change in ways that will engage your campus**
- **Identify the most critical vulnerabilities demanding action now**
- **Inform institutional decisions about the nature, sequence, and timing of changes needed to preserve institutional viability**

# Learning Outcomes

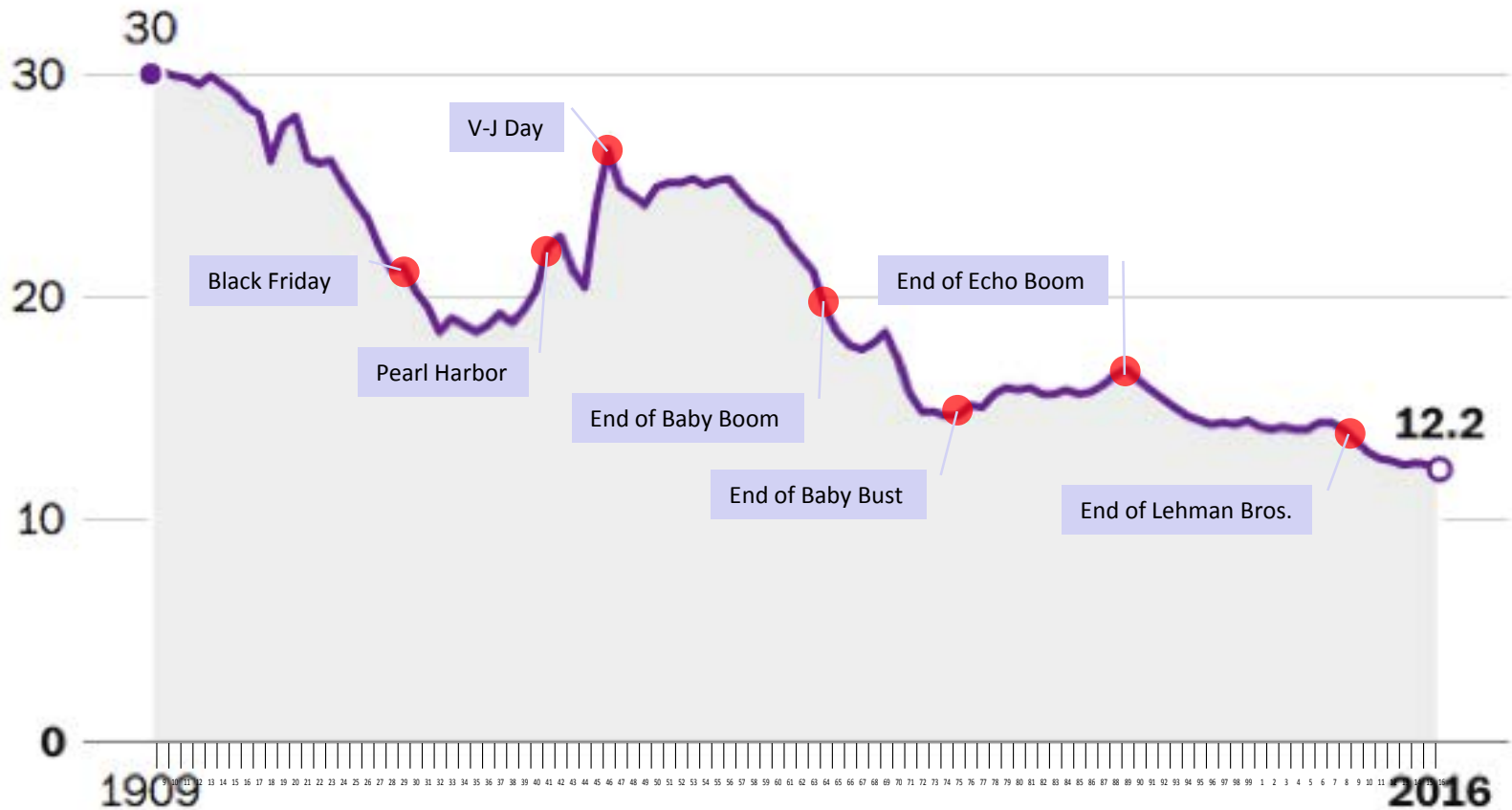
- **Two kinds of tools or approaches to help prepare for the upcoming demographic changes**
  - **Analyzing institutional vulnerability**
  - **Shaping strategy through evaluating scenarios and options**

Part One

**What is happening?**

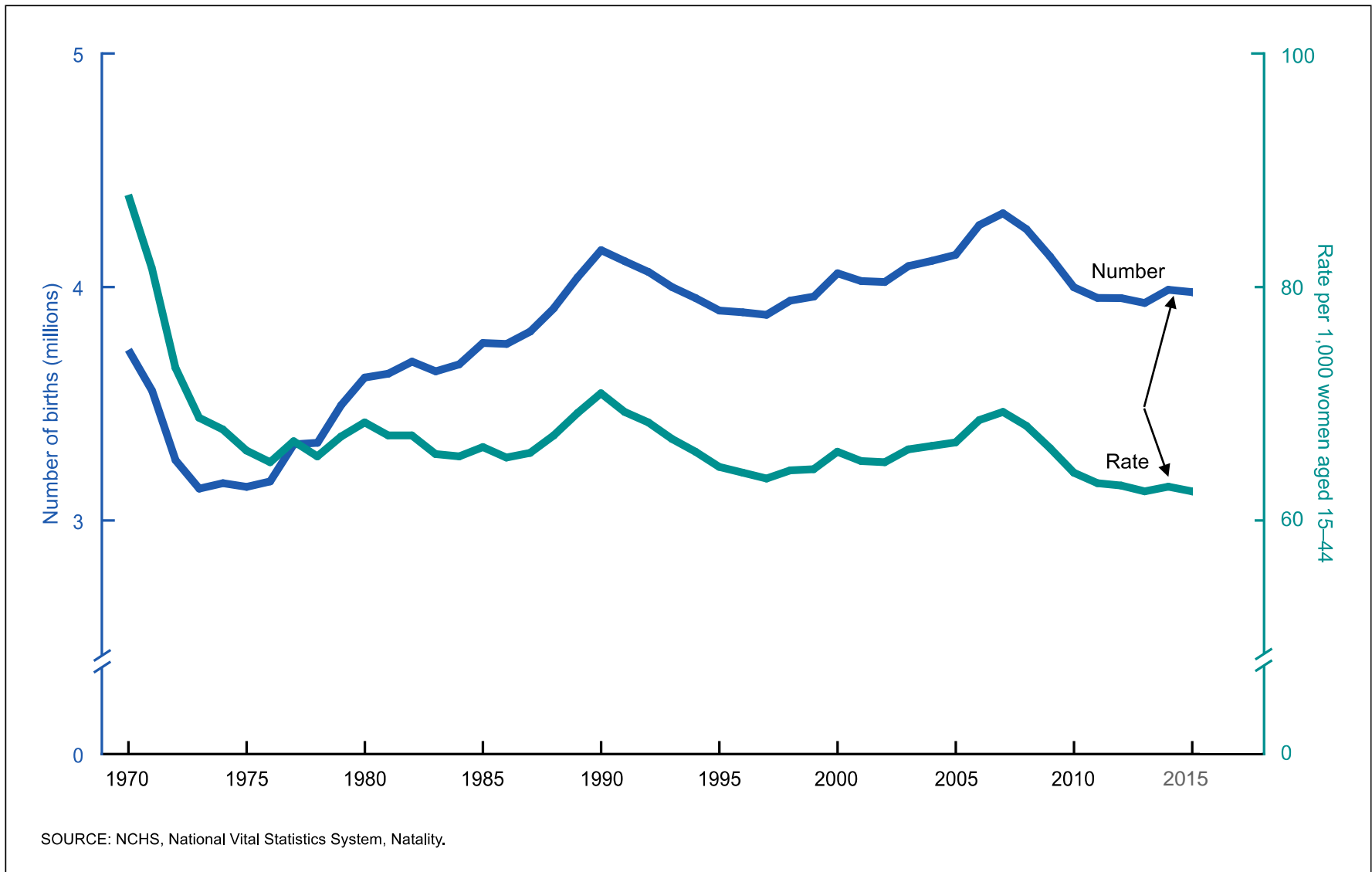
# U.S. birth rate

Live births per every 1,000 residents



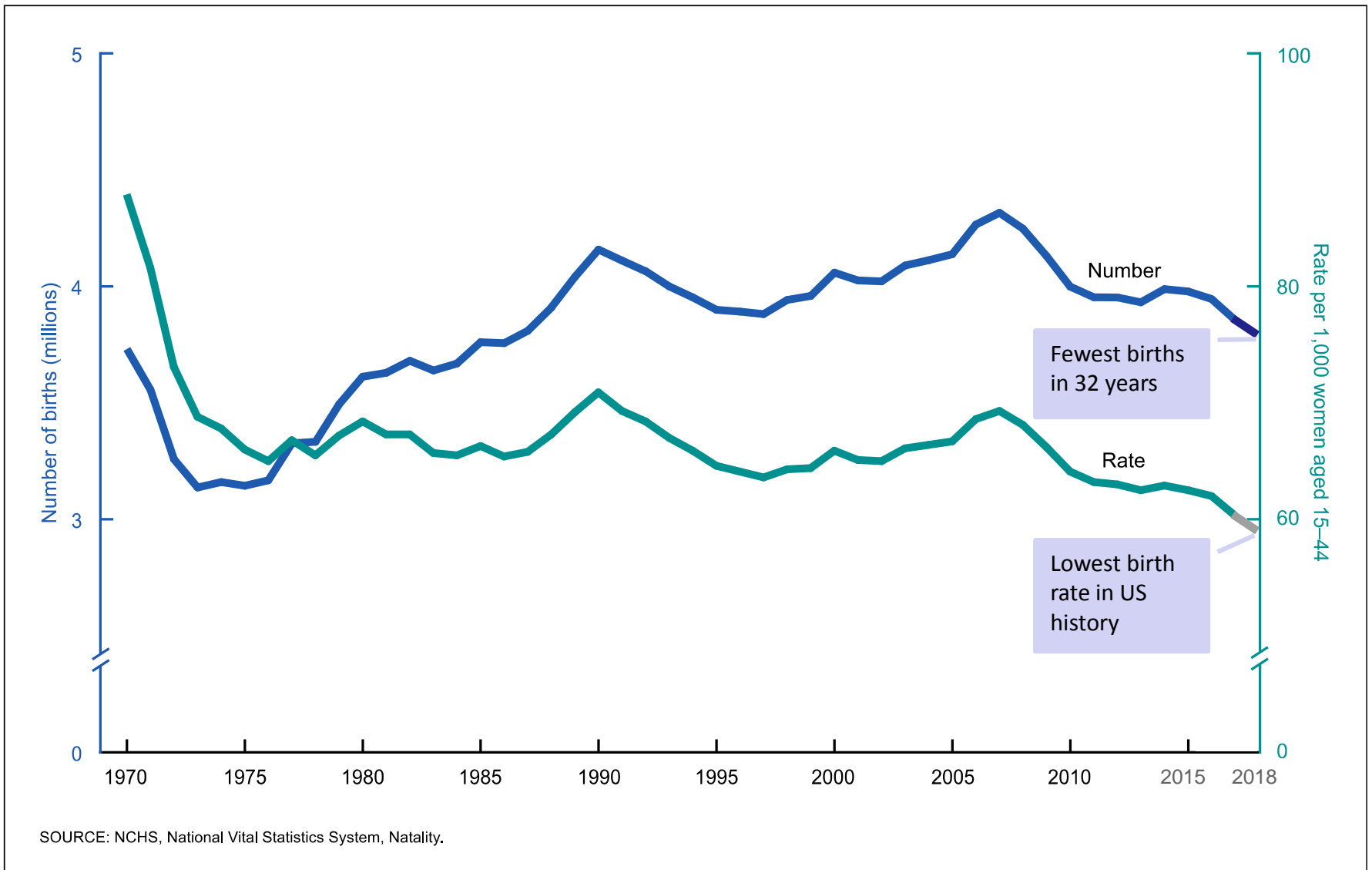
Source: Centers for Disease Control and Prevention

THE WASHINGTON POST



**Figure 2. Live births and general fertility rates: United States, 1970–2017**

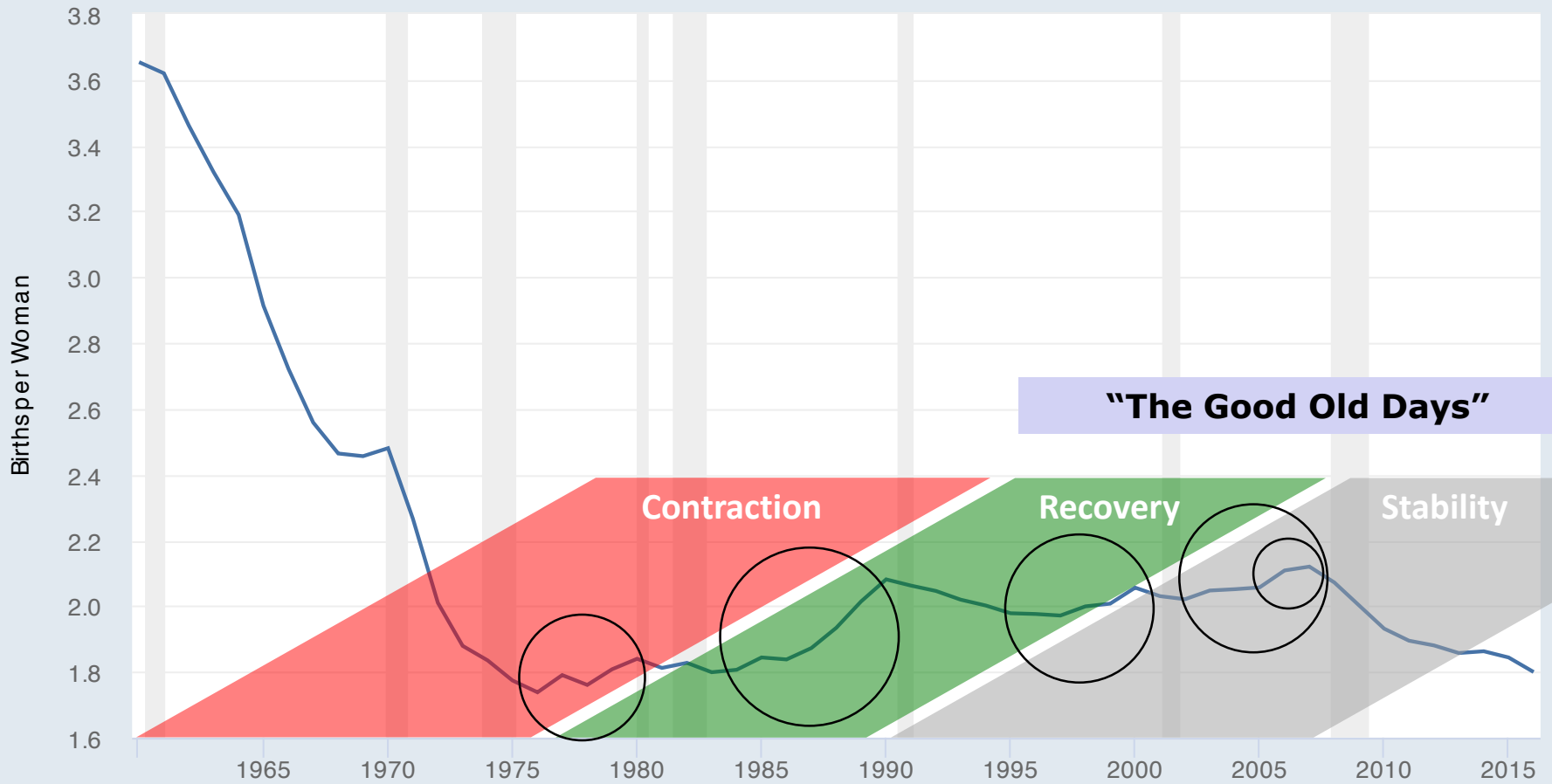
Adapted from Martin JA, Hamilton BE, Osterman MJK, Driscoll AK, Drake P. Births: Final data for 2017. National Vital Statistics Reports; vol 67 no 8. Hyattsville, MD: National Center for Health Statistics. 2018.



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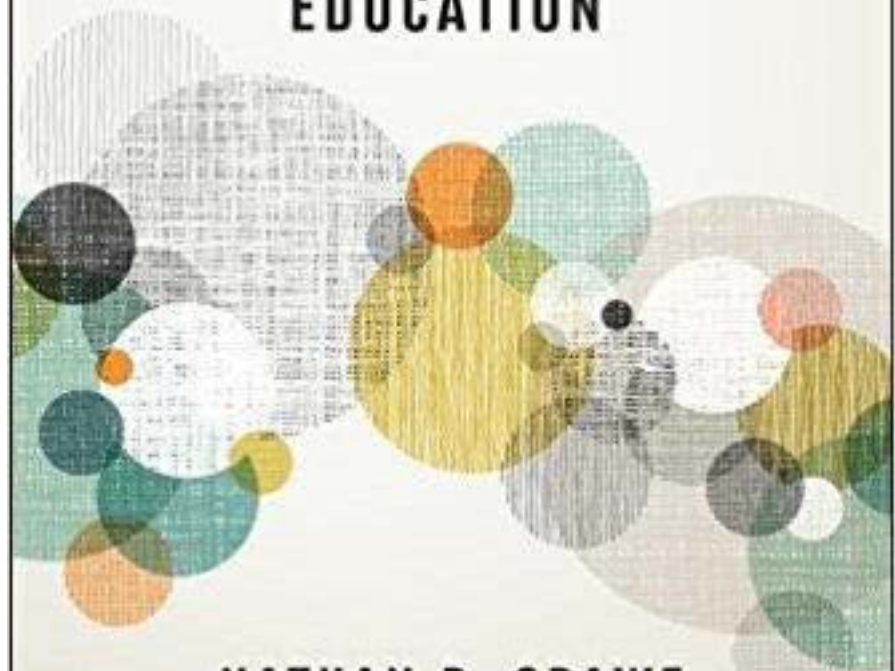
Shaded areas indicate U.S. recessions

Source: World Bank

[myf.red/g/IQWz](https://myf.red/g/IQWz)

Source: Federal Reserve Bank of St. Louis

**DEMOGRAPHICS**  
*and the*  
**DEMAND**  
*for*  
**HIGHER**  
**EDUCATION**



**NATHAN D. GRAWE**

From Nathan D. Grawe, *Demographics and the Demand for Higher Education* (2018, Johns Hopkins).

There is no argument: demographic change is reshaping the population of the United States in ways that raise challenges for higher education.

Postsecondary institutions have not always proven the most agile market participants. Little time remains to determine the meaning of these changes for higher education and to respond accordingly.

...Beginning in 2026 the number of native-born children reaching college age will begin a rapid decline. ... Nothing so far suggests a meaningful recovery. The Great Recession did not simply delay births — it eliminated them.

Total numbers of students are headed toward a cliff.

# The demand for higher education does not follow population trends in lockstep

[18-year-old headcount  $\neq$  Enrollment]

## ■ Geography

- Children from the Northeast ... are 40 percent more likely to attend a four-year institution than those from the West and Southwest.
- A child from New England is more than 10 times as likely as a child from the West South Central to attend a... top 50 [institution].

## ■ Income

- The proportion of New England and Middle Atlantic families ... who reported incomes greater than \$100,000 was nearly twice that found in the West South Central.
- Children from high-income families are more than six times as likely to attend an institution ranked among the top 50.

# The demand for higher education does not follow population trends in lockstep.

## ■ Race/Ethnicity

- The correlation between race/ethnicity and college attendance is similarly strong. Asian American and non-Hispanic whites are substantially more likely than non-Hispanic blacks and Hispanics to acquire some college education.

## ■ Parental Education

- Consider two children. The first has no parental model for completion of high school, while the second lives with at least one parent who possesses a degree beyond a bachelor's. The latter is almost twice as likely as the former ... to acquire some postsecondary education.
- The child of a college degree-holder is more than 12 times as likely to attend a top-ranked institution.
- Between these extremes, attendance rates consistently grow as this measure of parental education rises.

# Will this affect all institutions equally?

## What if we take into account:

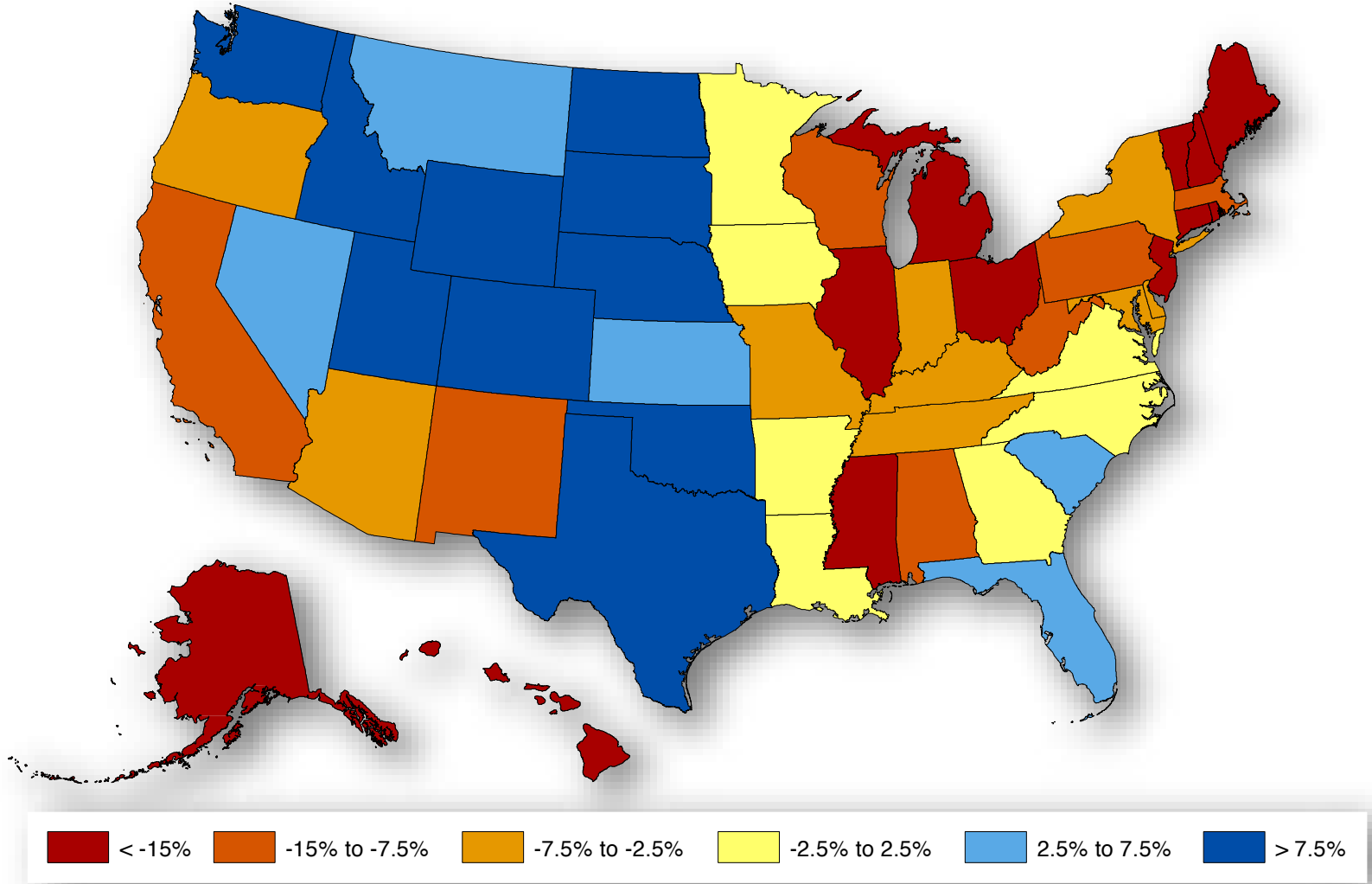
- **Geography**
  - Differential birthrates
  - Willingness to travel to attend college
  - Migration (immigration to US and internal movement)
- **College-going rates**
  - Race/ethnicity
  - Parental education
  - Income
- **Type of institution**
  - Highly selective (“elite”)
  - Selective (“national”)
  - Less selective (“regional”)

### ***Education Longitudinal Study (ELS)***

- *Nationally representative sample of 16,000 high school sophomores in 2002*
- *Follow-up to understand their college-going behavior*

# Forecasted growth in high school graduates, 2012-32

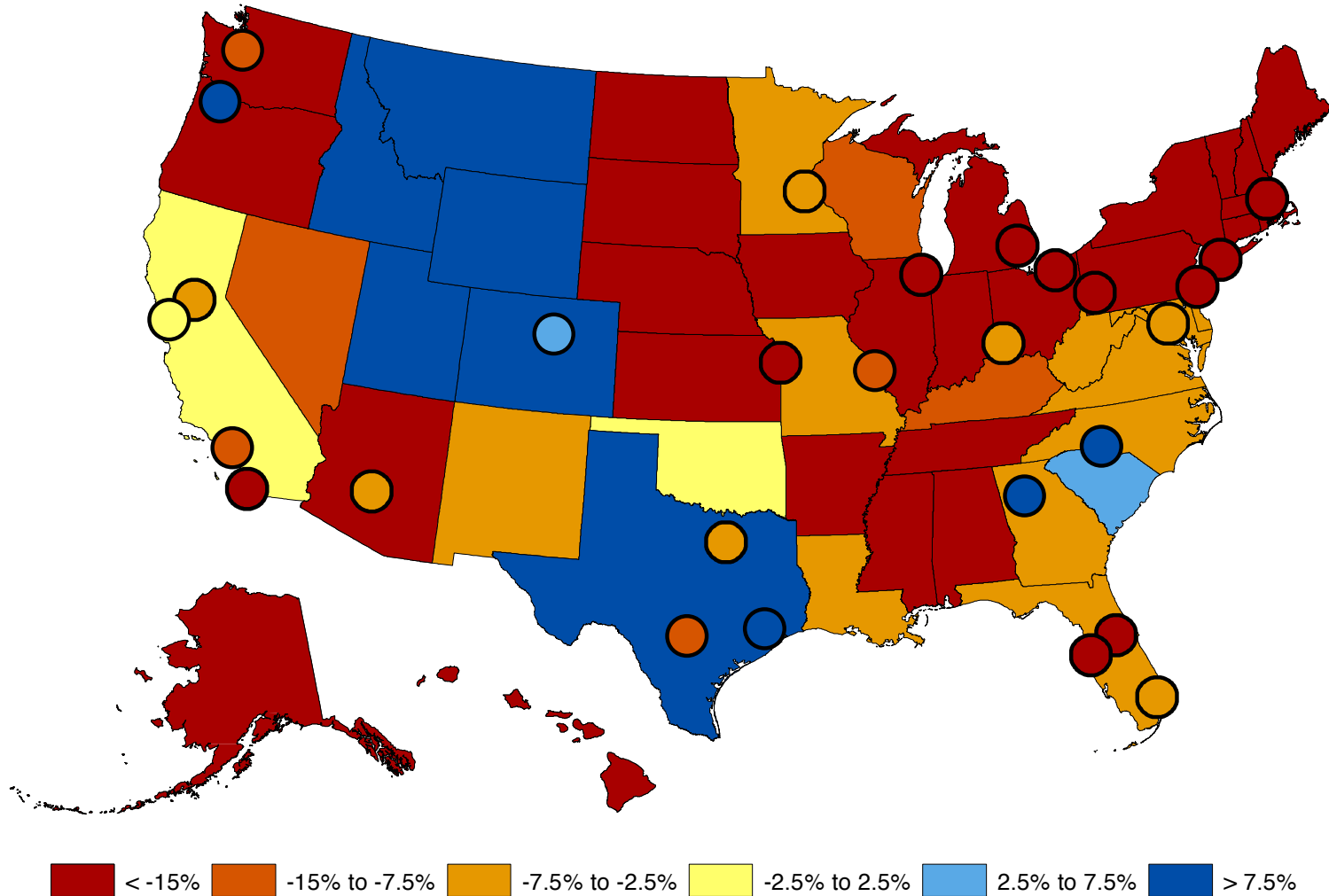
Source: Author's calculations based on WICHE (2016)



From Nathan D. Gawe, *Demographics and the Demand for Higher Education* (2018, Johns Hopkins).

# Forecasted growth in college attendance, 2012-32

Source: Author's calculations



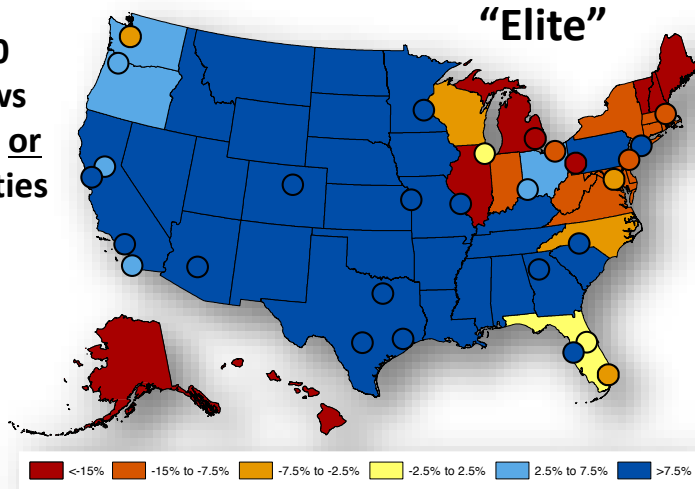
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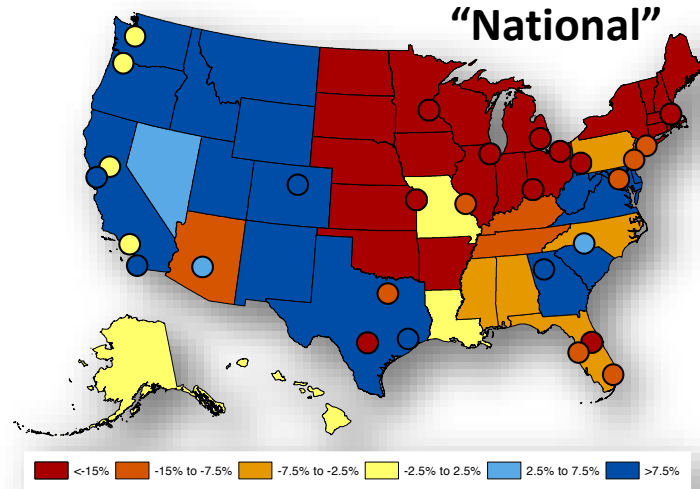
# Forecasted change in college attendance, 2012-32

Source: Author's calculations

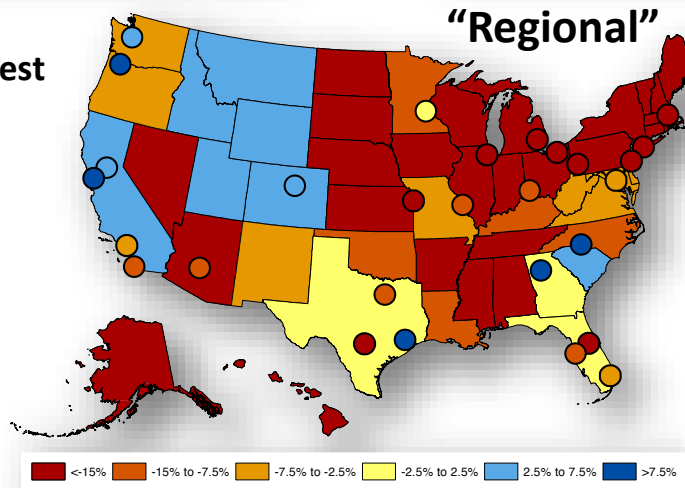
Top 50  
US News  
colleges or  
universities



Next 50  
US News  
colleges or  
universities

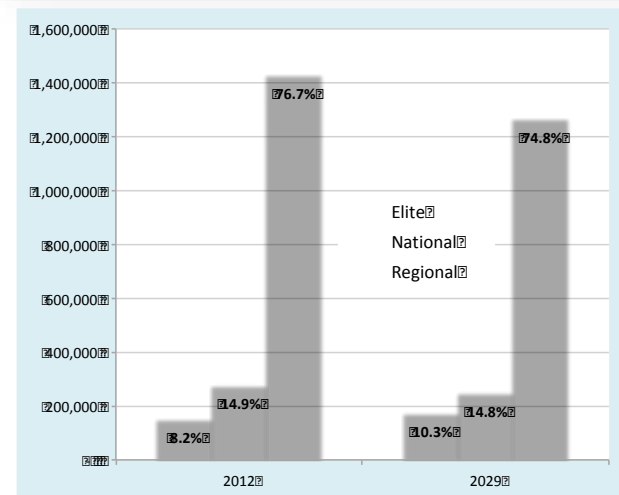
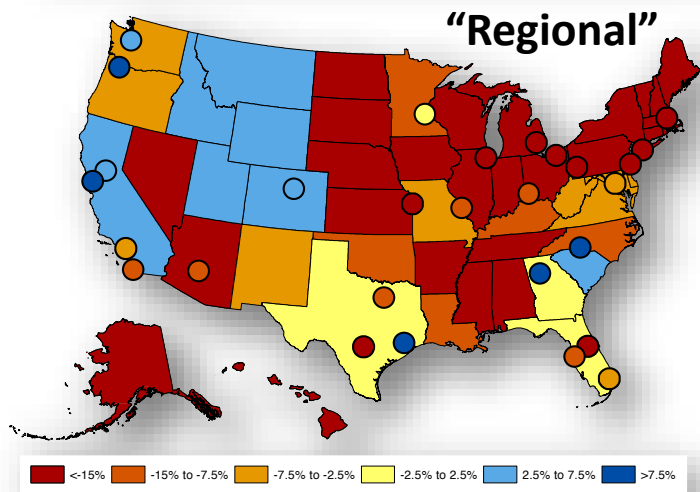
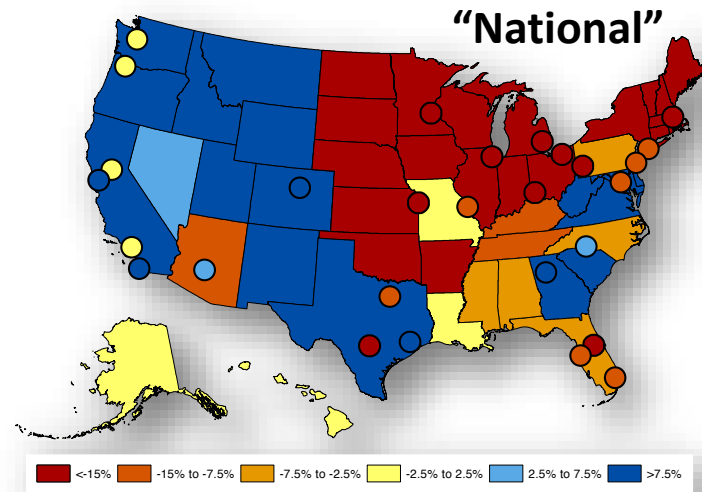
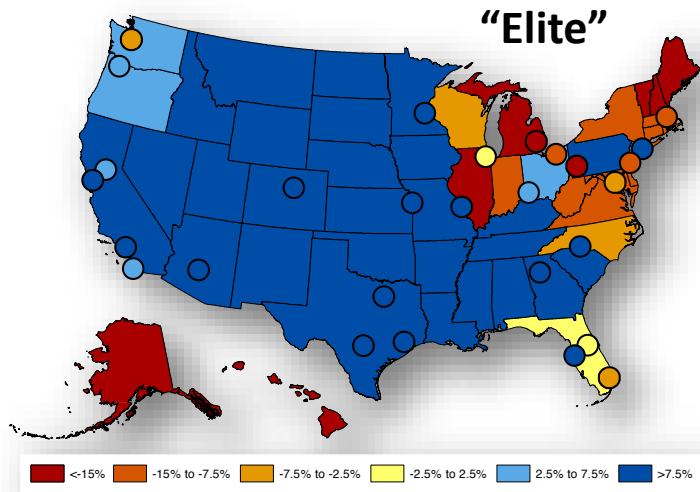


All the rest



# Forecasted change in college attendance, 2012-32

Source: Author's calculations



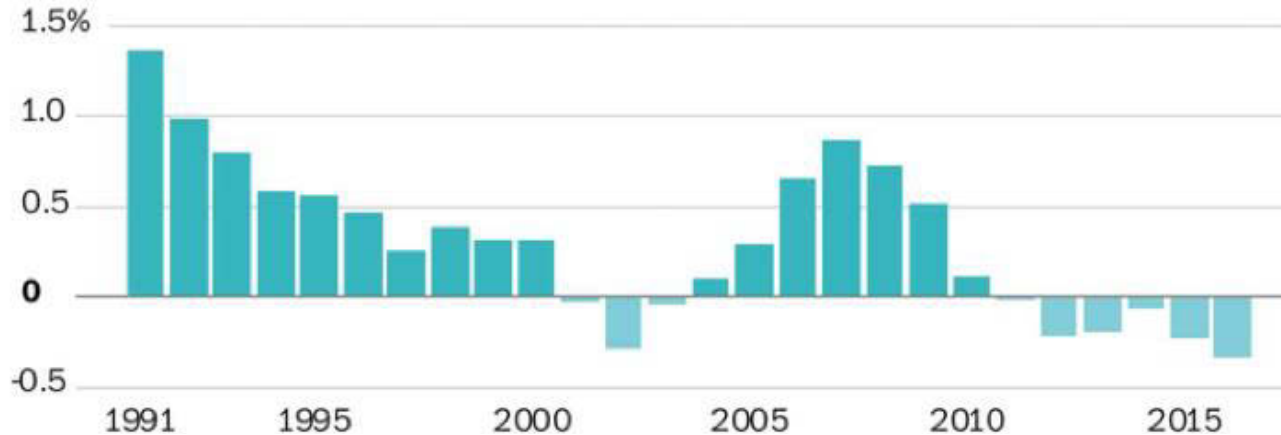
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# Should we worry?

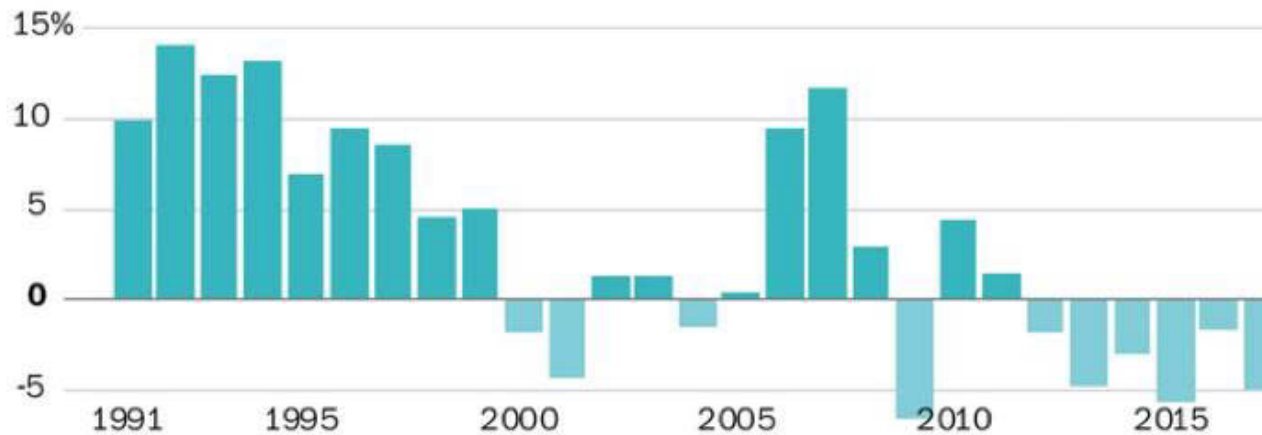
- **“It’s never as bad as it seems”**
  - **Baby Boom: much larger decline, enrollments actually grew**
  - **Yes, because of a massive increase in college participation**
    - **But rate is already historically high, and stagnant**
    - **Policies to increase rate among underrepresented groups?**
- **“We won’t have a problem”**
  - **You may not go out of business. But what business will you be in?**
- **“We’ll work harder on recruiting”**
  - **So will everyone else**
  - **Just standing still will require extraordinary luck and effort**

# From the mouths of babes...

Babies born in the U.S., rolling 12-year total, change from a year earlier



Toys R Us revenue, calendar-year totals, change from a year earlier



Source: Centers for Disease Control and Prevention (births); the company via Bloomberg  
THE WASHINGTON POST

# Some things I think about...

## ■ Duration

- Baby Bust lasted 15 years (1961-76)
- Current decline has already lasted 10 years, with no sign of reversing or even stabilizing

## ■ Severity

- Participation rates now at historic highs, and gaps are closing
- How much more can they rise, especially as college costs rise?

# Some things I think about...

## ■ **The Economy**

- **Birth rate decline has accelerated through the economic recovery (opposite of previous four recessions)**
- **One of these days we will have another recession...**

## ■ **Revenue**

- **Reliance on students for general operating revenues has expanded, especially in the public sector**
- **Impact of enrollment decline on revenue therefore greater than in previous slumps**
- **Tuition discounting means less net revenue per student**

## FIGURE 1: AVERAGE INSTITUTIONAL TUITION DISCOUNT RATE BY STUDENT CATEGORY

NACUBO survey of 400+ private, non-profit institutions

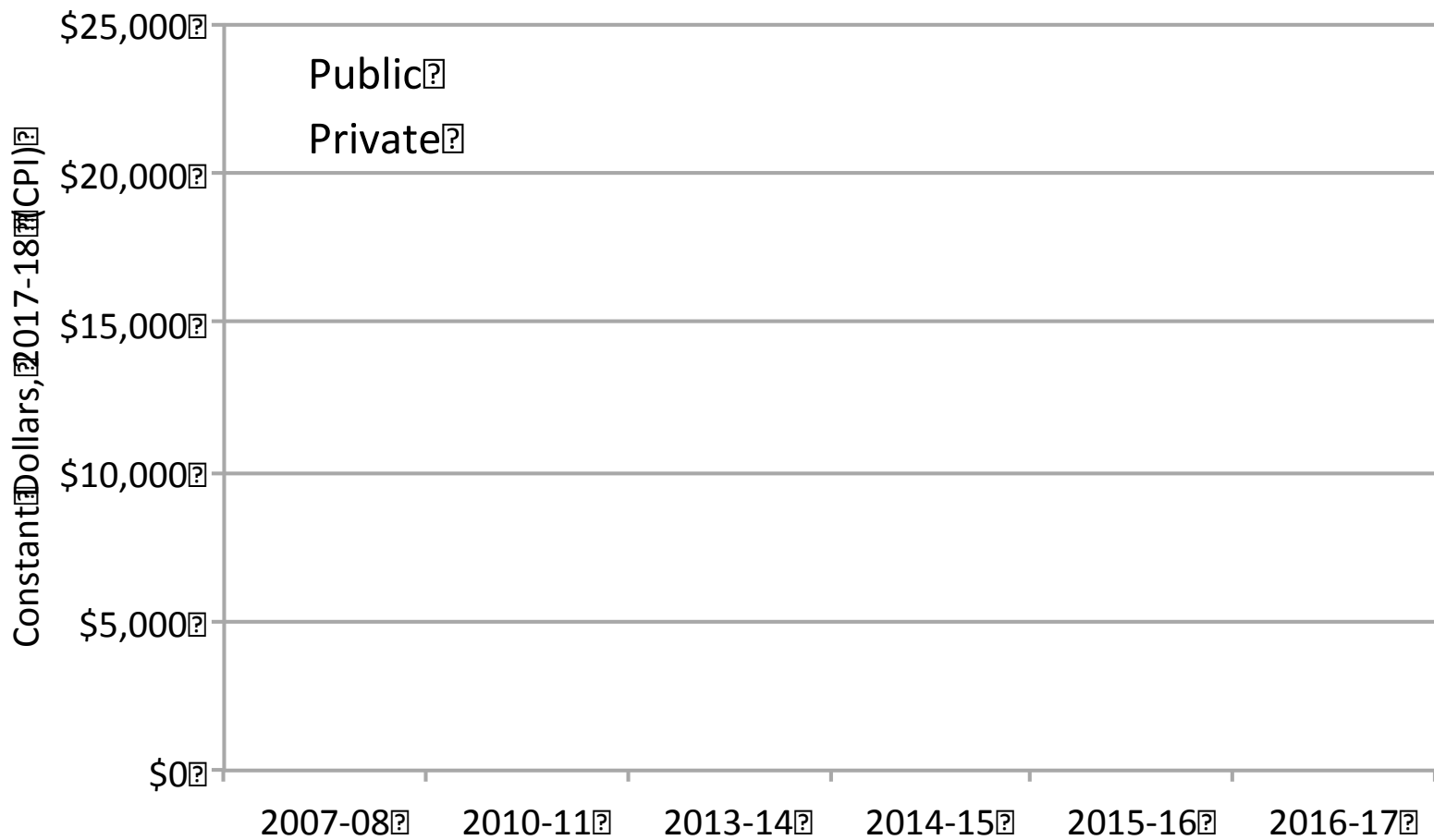


Source: NACUBO Tuition Discounting Study, 2006 to 2017; data are as of the fall of each academic year.

\*Preliminary estimate

◆ First-Time, Full-Time Freshmen     
 ■ All Undergraduates

# Net Tuition & Fee Revenue per Student 4-Year Institutions



Source: USDOE, Digest of Education Statistics 2018, Tables B33.10, B33.40



## Part Two

**So what should we do?**

# Understand the situation

## 1. Broad context: Grawe's framework

- Tier: Elite, National, Regional
- Geography: Principal sources of students
- All things being equal, availability forecast is good baseline

### Reasons to think situation might be better

- Strong presence in areas(s) of favorable demography
- Unusually strong competitive position
- Mature, well-resourced enrollment strategy

### Reasons to think situation might be worse

- Weak access to areas(s) of favorable demography
- Typical or declining competitive position
- Challenged, inflexible enrollment strategy



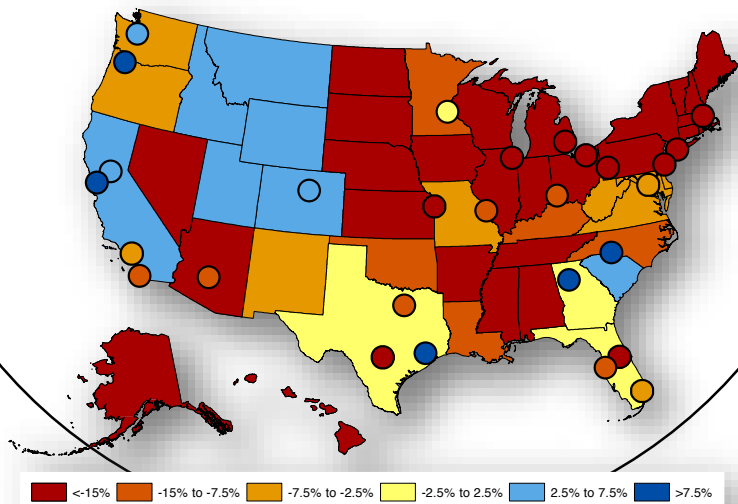
**CONFIRMATION  
BIAS**

# Understand the situation

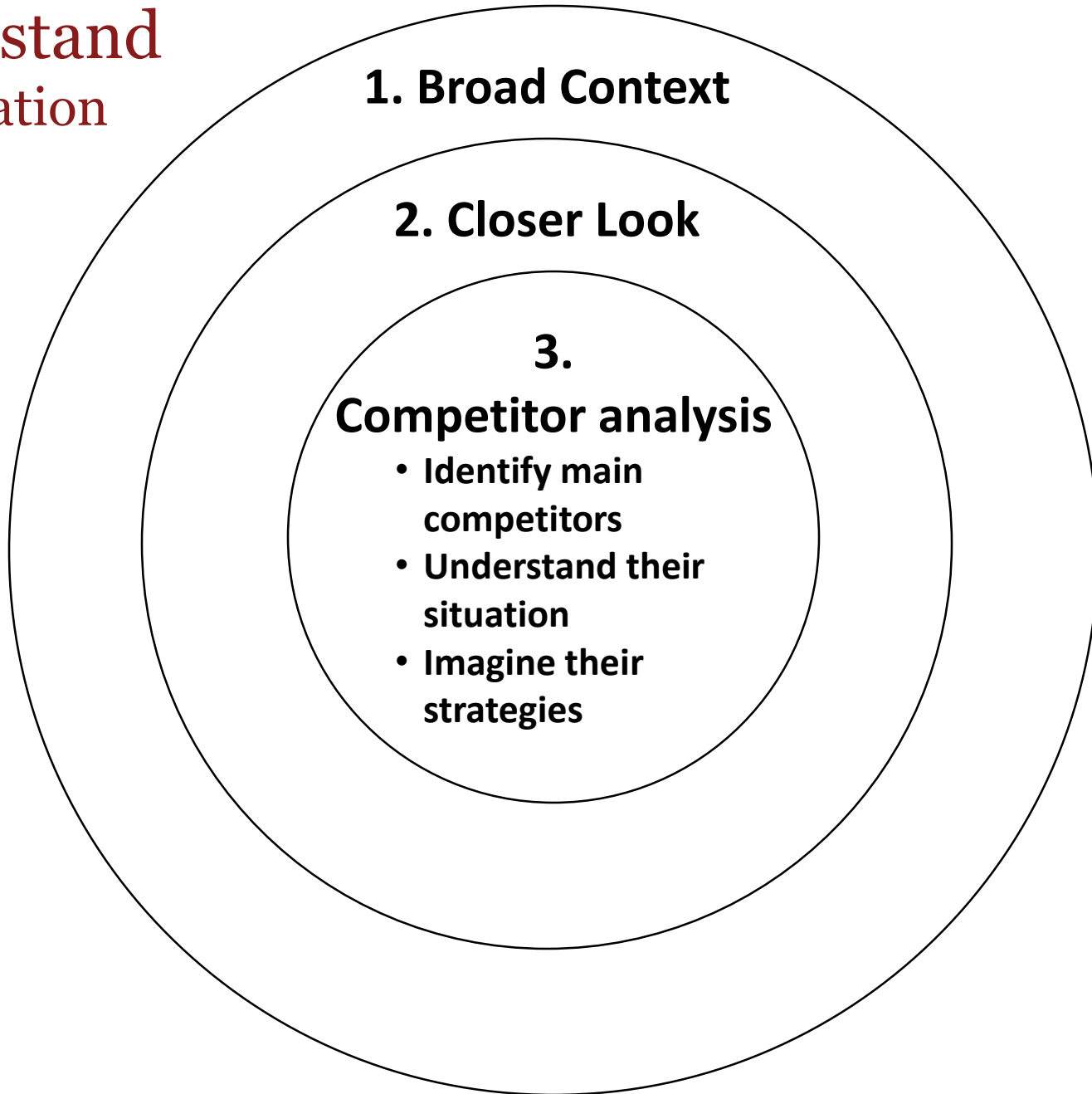
## 1. Broad Context

## 2. Closer Look

- Drill down into model
- Your reliance on each of Grawe's 63 geographic markets
- Opportunities to move into more favorable areas

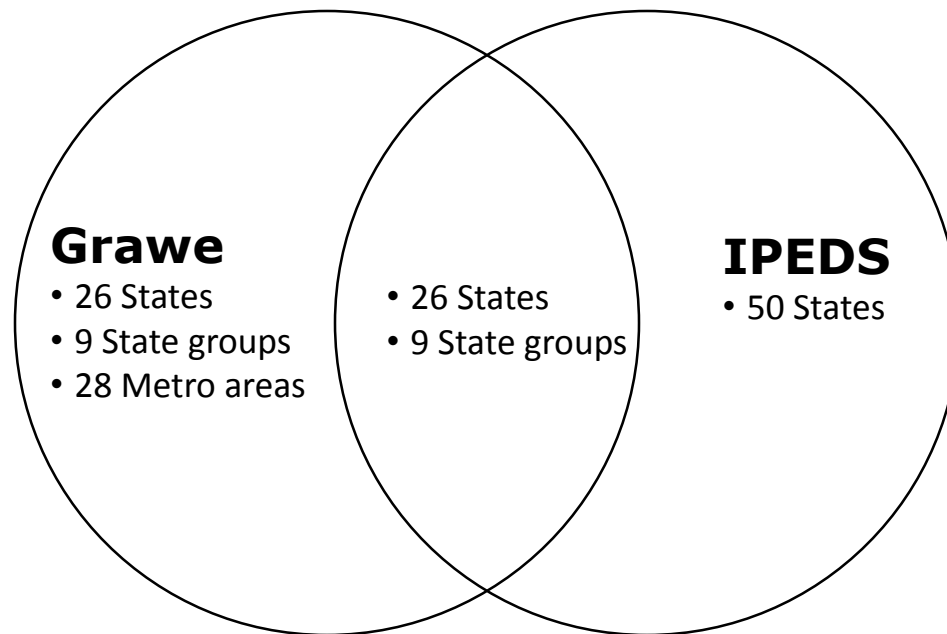


# Understand the situation



# Competitor Analysis

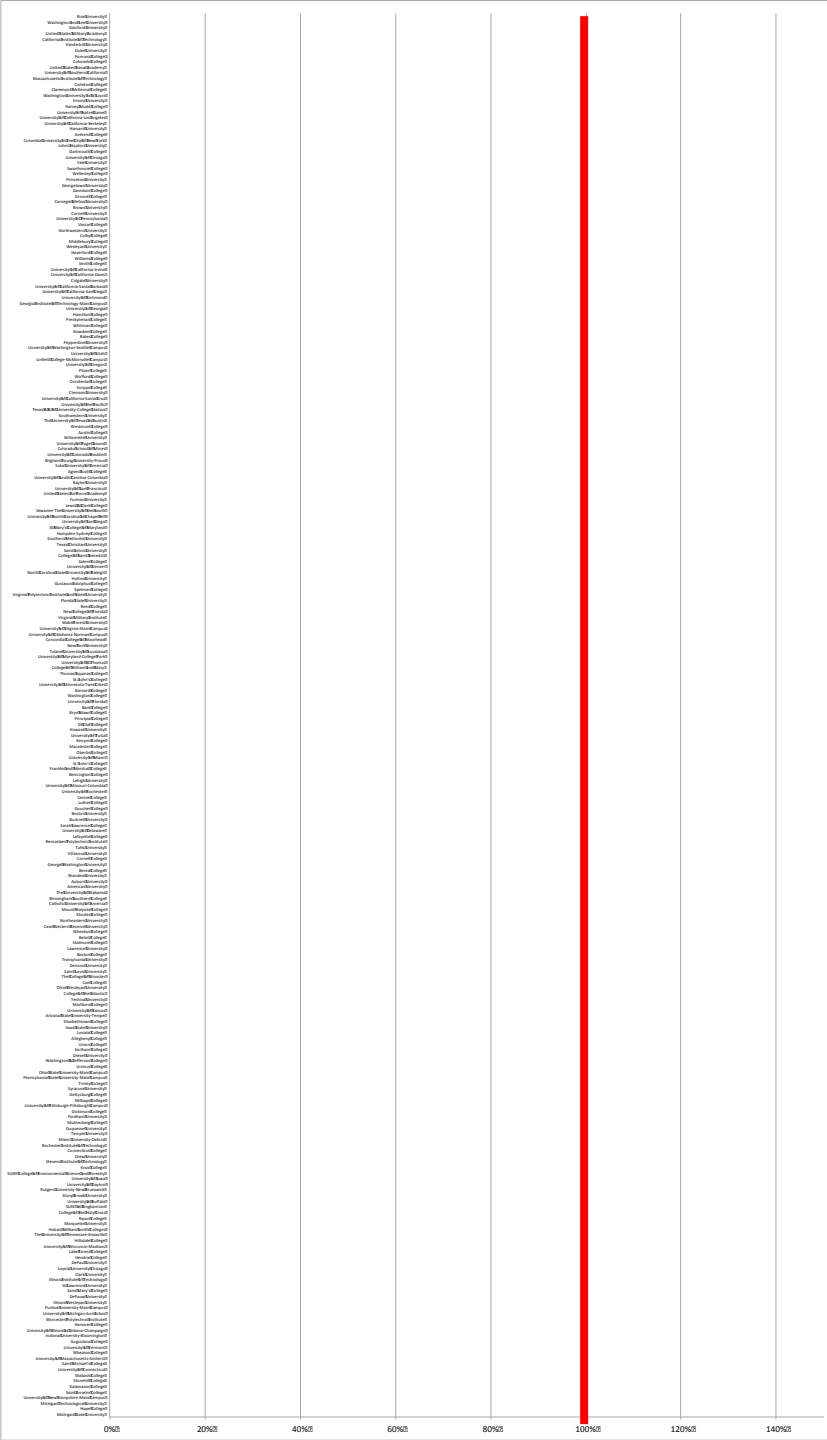
- **Cross-walk Grawe's forecasts with IPEDS residency data**
  - Grawe reports 63 areas: states, groups of states, metro areas
  - IPEDS provides state of origin for first-time students
  - Can be matched into 34 areas (states and groups of states)



# US News "National" Public Universities

Source: Harvey calculation  
based on Grawe

$$\begin{aligned}
 &\text{Grawe HEDI (Tier)} \\
 &\text{Crosswalk region (35)} \\
 &\quad \times \\
 &\text{\% institutional draw} \\
 &\text{from region} \\
 &\quad \times \\
 &\text{Forecast applicants in} \\
 &\text{region (2029)} \\
 &\quad / \\
 &\text{Actual applicants from} \\
 &\text{region (2016)}
 \end{aligned}$$



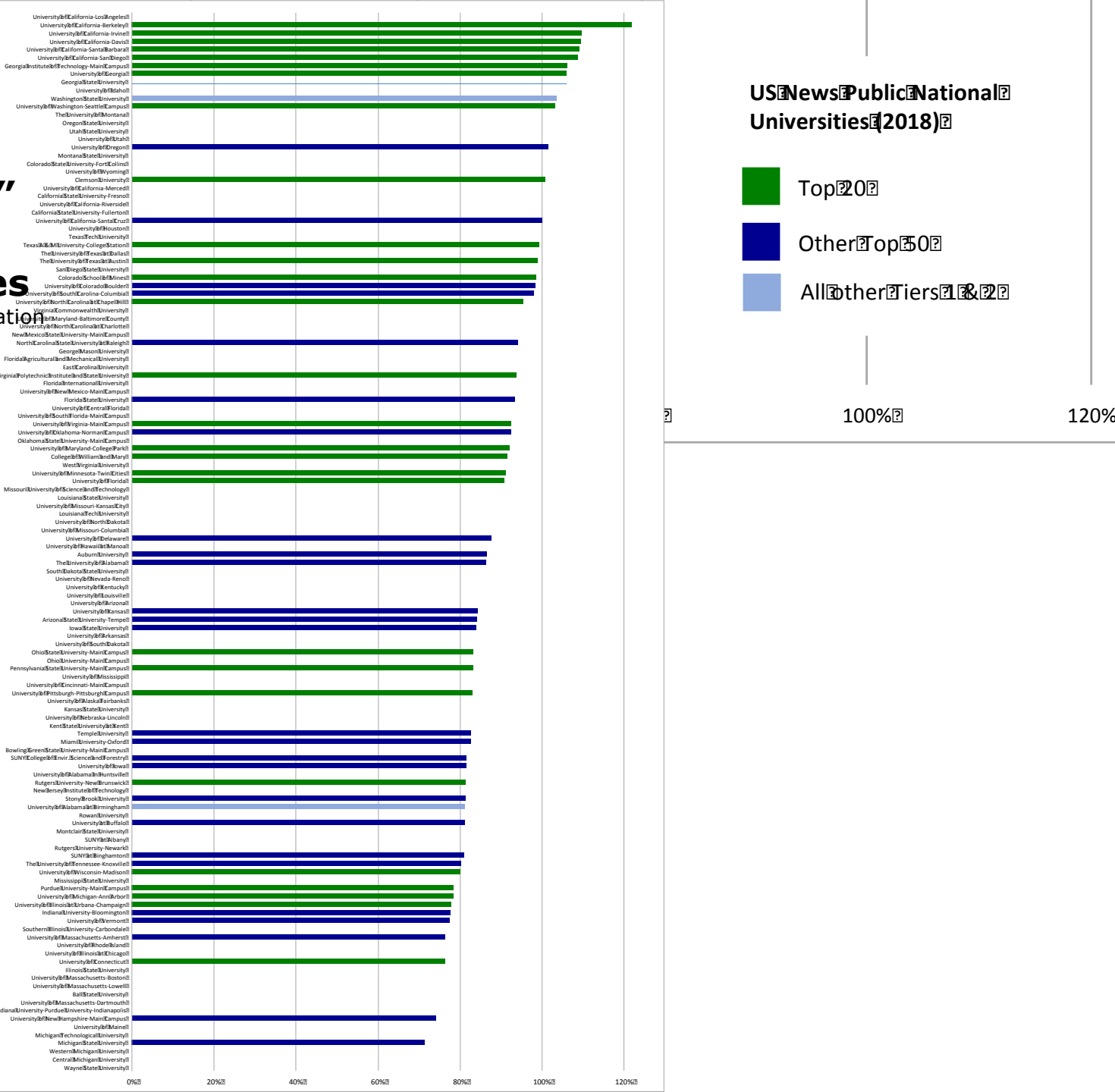
# Competitor Analysis

- **Cross-walk Grawe's forecasts with IPEDS residency data**
  - Grawe reports 63 areas: states, groups of states, metro areas
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  - Can be matched into 35 areas (states and groups of states)
- **Impact on Rankings**
  - Cross Grawe's HEDI with current US News rankings
  - Once institutions are "in motion," who are you likely to pass? Who is likely to pass you?

Amherst  
 Island  
 Chicago  
 Connecticut  
 University  
 Boston  
 Lowell  
 University  
 Portsmouth  
 Annapolis  
 Campus  
 Maine  
 University  
 University  
 University

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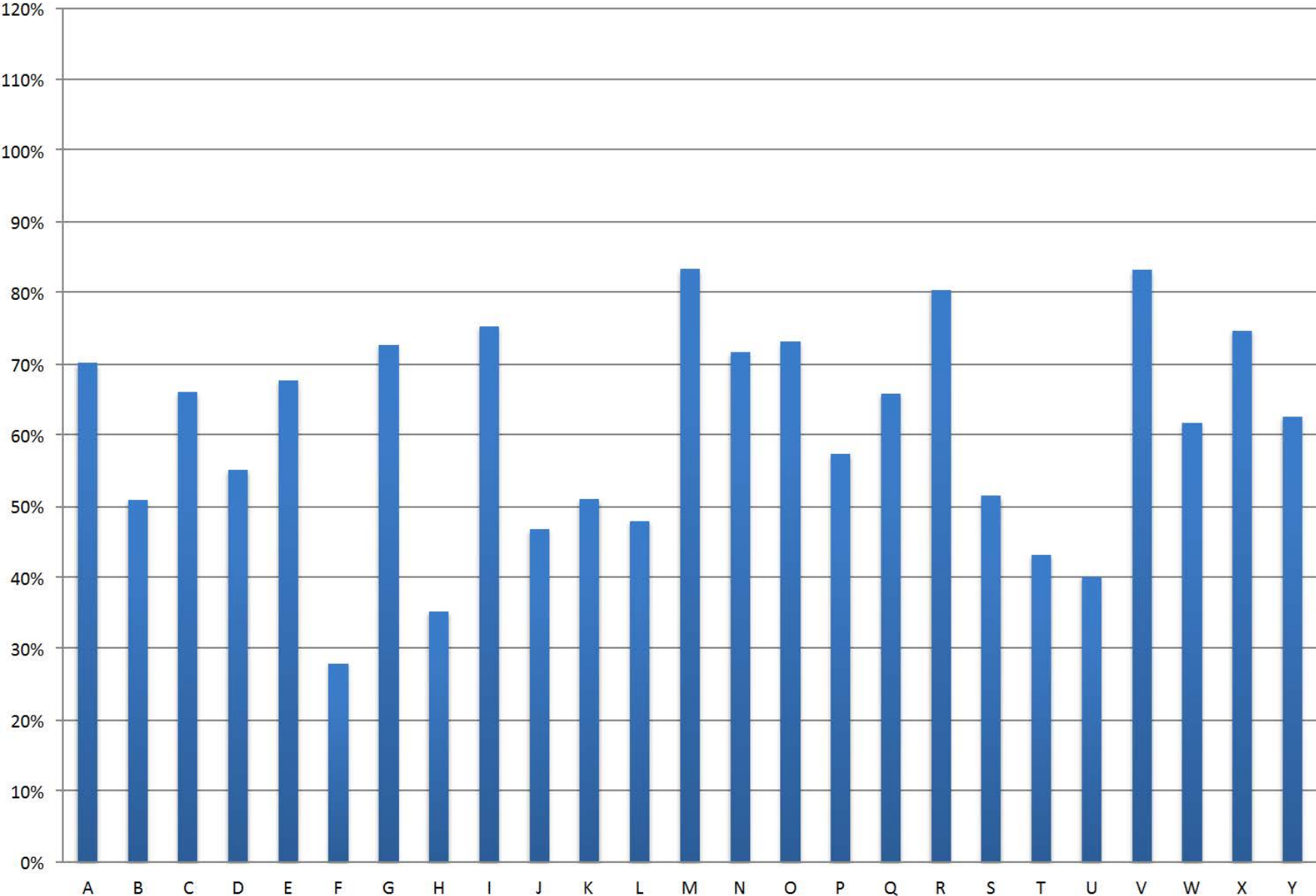




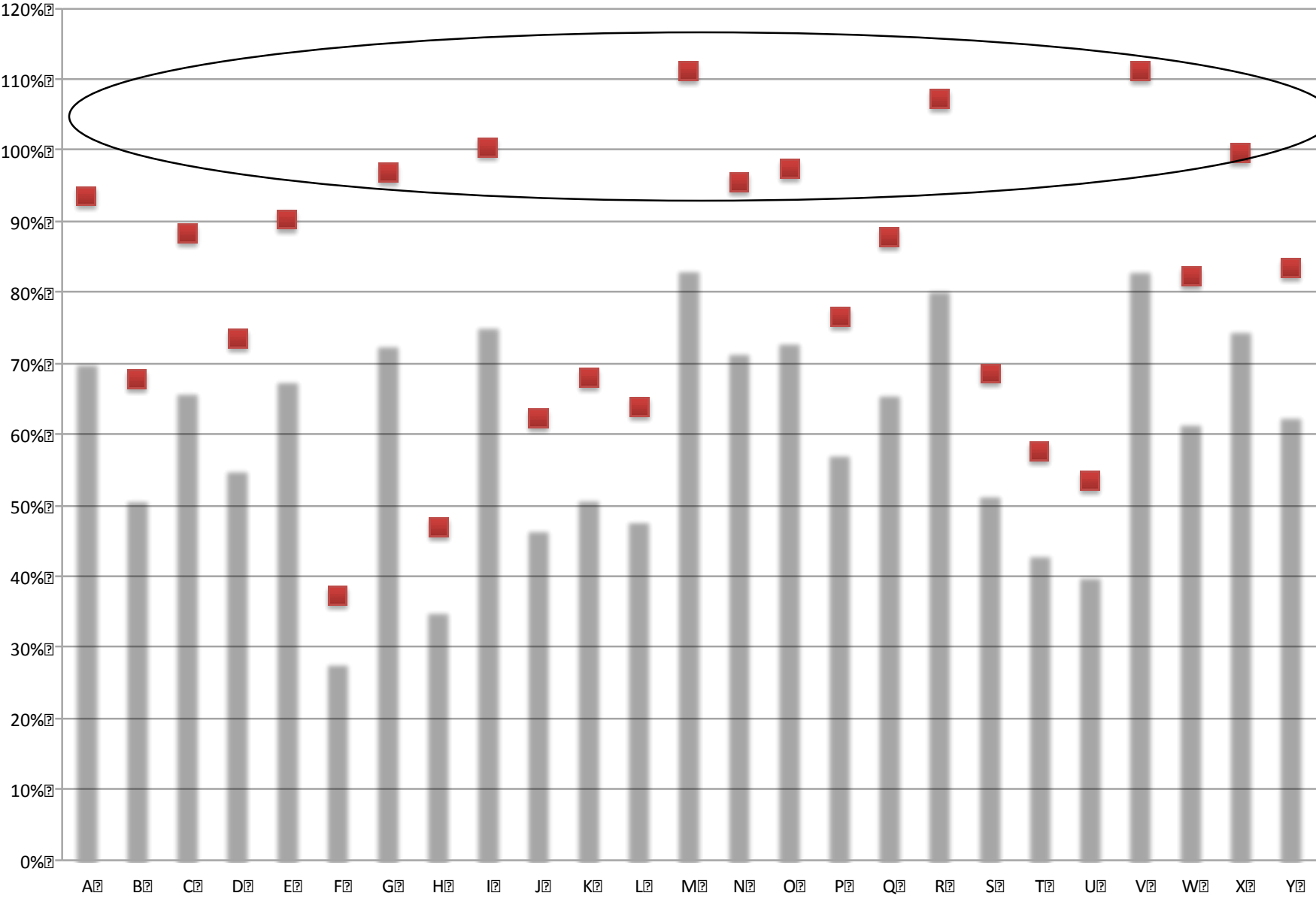
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- **Impact on Rankings**
  - Cross Grawe's HEDI with current US News rankings
  - Once institutions are "in motion," who are you likely to pass? Who is likely to pass you?
- **Win-Loss Analysis**
  - **Admitted Student Questionnaire (ASQ) provides data on head-to-head competition with individual competitors**
  - **Allows "what if" scenarios illustrating opportunities or threats in future years**

# Change in Win Percent Needed if 25% Fewer Applicants



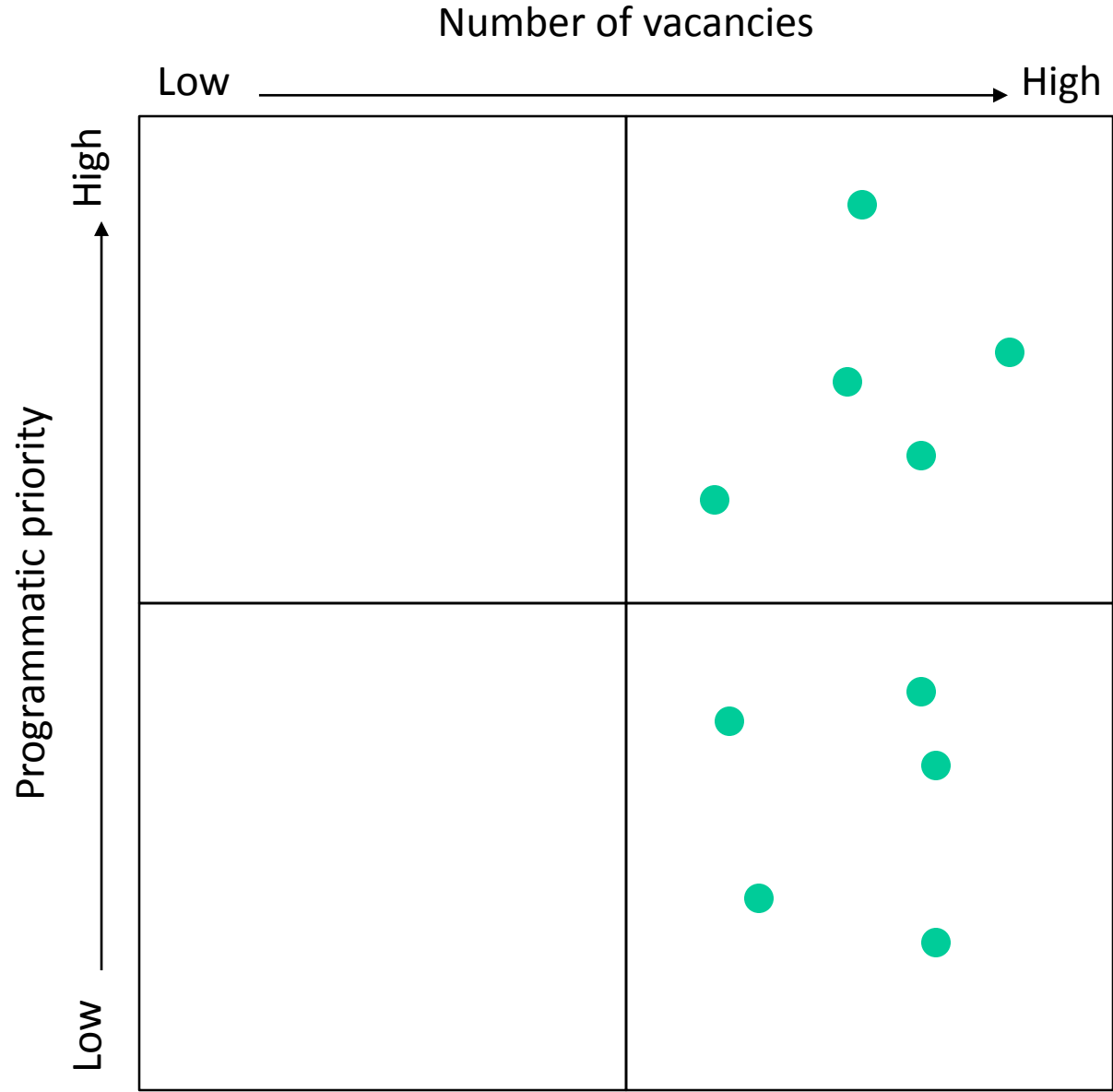
# Change in Win Percent Needed if 25% Fewer Applicants




# Thoughts on Moving from Analysis to Action



## ■ Using the gift of time



- **Advance warning provides time to act**
  - Time to consider options
  - Time to experiment and adapt
  - Time to pursue gradual vs. sudden change
- **But it is already late**
  - Six-year grad rates for 2026 already largely determined
  - Time to enrollment for new programs?
  - Alternative revenue streams?
- **Acting sooner is qualitatively better than acting later**
  - Managing vacancies
  - Developing programs
  - Establishing financial incentives
  - Preparing stakeholders



Year 1	

Year 2	
	

Year 3	
 	

Year 4	
 	

# Thoughts on Moving from Analysis to Action

- **Characteristics of successful planning**
  - Long lead-time, long-duration event
  - Existential threat for some, deeply challenging for most
  - Implications for planning
    - Anticipatory vs. reactive
    - Consistency vs. flexibility
    - Commitment vs. improvisation
  - Need to narrow focus and concentrate resources

# Thoughts on Moving from Analysis to Action

## ■ Forks in the road

- **Consistent, committed strategy embraces a few key options and abandons many others**
- **Institutions will face clear forks in the road**
  - **Maintain quality/selectivity vs. maintain revenue**
  - **Compete on price vs. compete on performance**
  - **Wait it out vs. start the change**
- **Clear understanding of trade-offs and choices is the first priority**



# Thoughts on Moving from Analysis to Action

“Leadership is mobilizing a group  
to confront its problematic realities”

Ronald Heifitz

- **Creating capacity to change**
  - This situation challenges many norms and values
  - Confronting it will unleash many anxieties
- **It raises the specter of the death of a dream**
  - Education as a public good
  - Expansion of knowledge
  - The arc of progress

# Thoughts on Moving from Analysis to Action

- **Dealing with the stages of grief (Kubler-Ross)**
  - Denial
  - Anger
  - Bargaining
  - Depression/Grief
  - Acceptance
- **The road to acceptance begins with the facts**
  - Analysis is not only the basis for *what* to do, but also *why* to do it
  - Places special demands on the analyst/planner
  - Be sure the messenger survives

# Thoughts on Moving from Analysis to Action

- **The thoughtfulness and persuasiveness of the analysis is a key indicator of the capacity for change**
  - Engage (and reassure) leadership
  - Build constituency for change
  - Find allies
  - Discourage opponents
  - Share risk and sacrifice
- **Analogies?**
  - FDR preparing the nation for war
  - Climate change: an inconvenient truth

# Thank You!

- **How well is your institution informed about its situation?**
- **How prepared is your institution to confront its problematic reality?**
- **What resources do you have to raise consciousness and inform action?**

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