

NCARB BY THE NUMBERS



JUNE 2014

NCARB by the Numbers

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INTRODUCTION

This year's *NCARB by the Numbers* offers a compelling perspective on how the entry point to the architecture profession is changing, and how NCARB is adapting to meet shifting demands. Based on this year's report, we look at the year ahead with anticipation as we continue to roll out new services and offer crucial updates to existing programs.

In addition to page-by-page graphics and descriptions of key findings, this year's *NCARB by the Numbers* also offers a deep dive that examines the demographics of those entering the profession, provides insight about the length of time it takes to get licensed, and highlights details related to the process.

A major finding in this year's report is that applications for NCARB Records—the initial step to licensure—continue to increase. Additionally, the number of interns completing the IDP and ARE remains strong, and the age at initial licensure continues to decline.

We've also seen an increase since 2011 in the number of women applying for NCARB Records. The percentage of women applying for NCARB Records continues to hold around 40 percent—a marked increase from 10 percent in the early 1990s.

The report's findings serve as a foundation for our ongoing efforts to lead change in the path to an architectural license. While determining the health or status of architecture is a complicated process with a range of variables, indicators from the report reflect that the up and coming class of architects is a thriving one.

This is the third edition of *NCARB by the Numbers* and we hope you find it a valuable resource for better understanding the path to licensure.

A handwritten signature in black ink that reads "Michael J. Armstrong". The signature is fluid and cursive, with a large, stylized initial "M" and "A".

Michael J. Armstrong
Chief Executive Officer
National Council of Architectural Registration Boards

SIGNALS OF A THRIVING ARCHITECTURAL PROFESSION

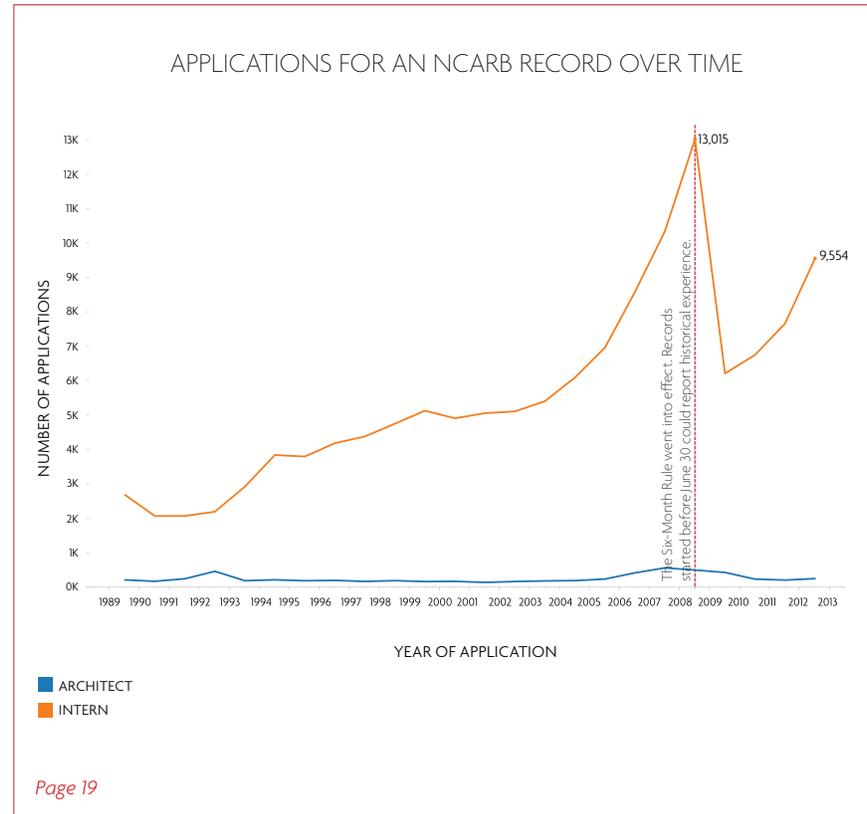
A PEEK AT NCARB'S LEADING INDICATORS

The field of architecture is changing. Technology now impacts everything, including architecture, where the tools, resources, and even the methods for managing projects have seen dramatic shifts over recent years.

Change can be stressful in any profession, but is there reason to be concerned about how the changes are affecting the health and future of architecture? NCARB's data reflects individuals who are on the path to becoming licensed. While this data shows only a portion of what is happening in the field, we'd like to share some of what we know.

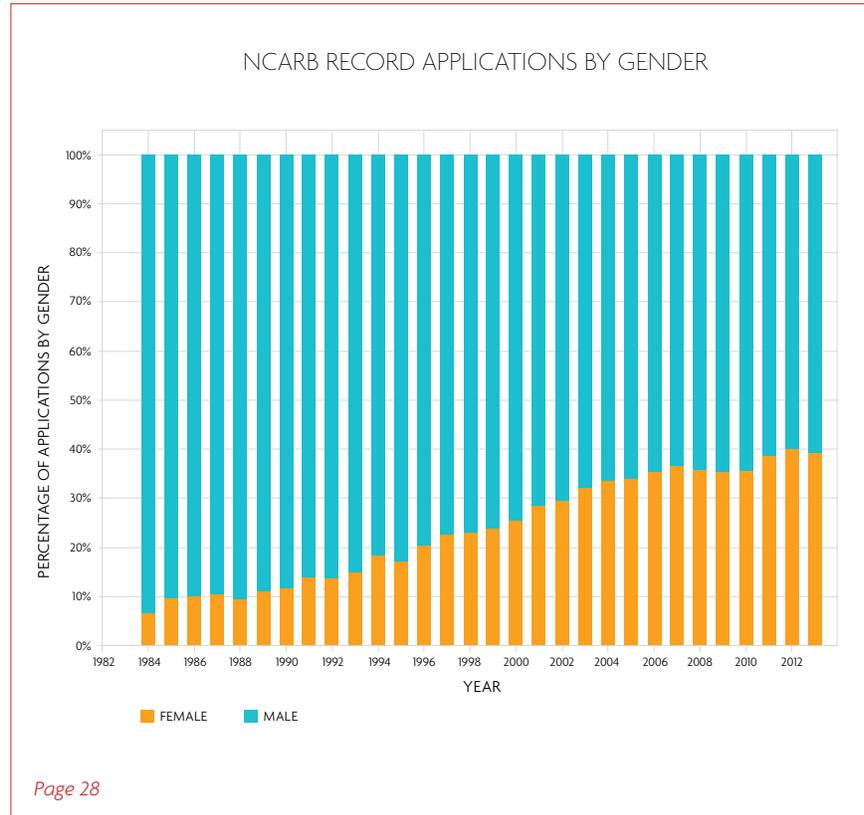
NCARB is committed to furthering the architectural profession and continually monitors its own programs and the effects they have on those seeking licensure. While the health or status of a profession is a rich and varied issue, indicators from NCARB seem to favor a profession that is thriving.

APPLICATIONS FOR NCARB RECORDS ARE INCREASING.



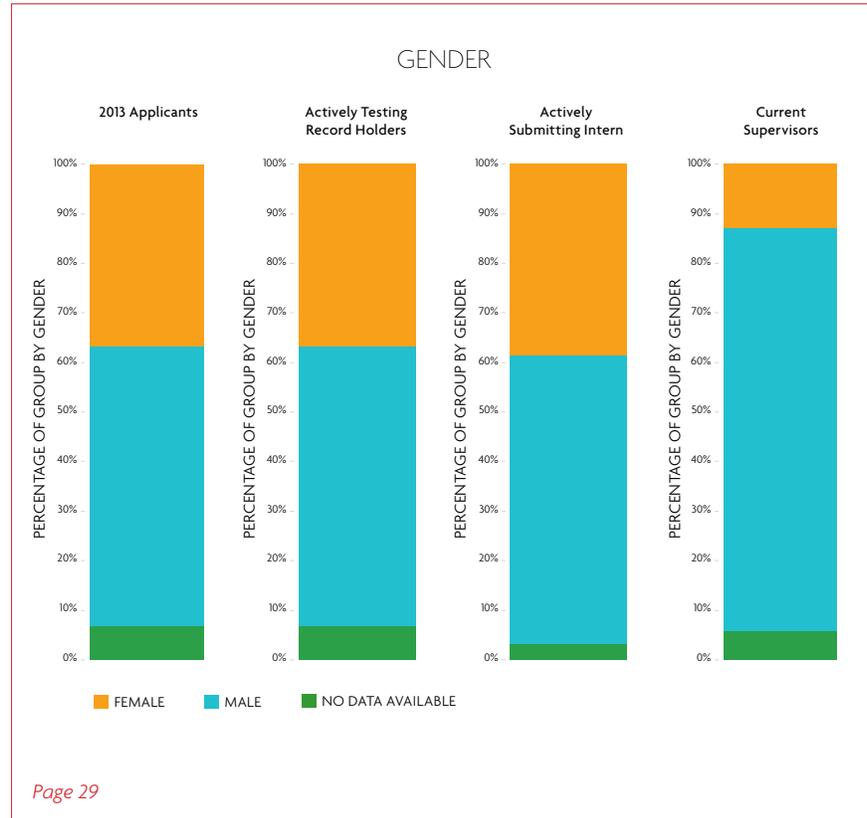
Prospective architects must have an NCARB Record to take the ARE. Most states have required an NCARB Record and the completion of IDP for a number of years. While the number of NCARB Records does not capture everyone in the profession, it does allow us to see the general trend in interns entering architecture.

A massive spike in applications occurred in 2009 as interns created Records before the reporting requirement came into effect. After this rush, applications dropped, but they have since resumed a very healthy upward growth.



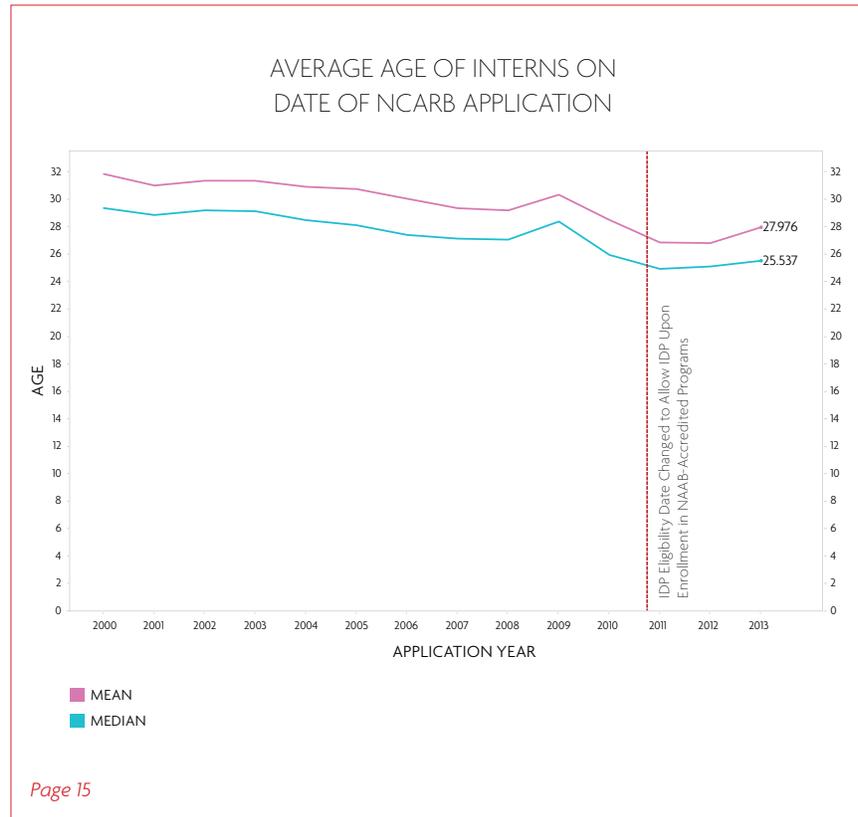
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One positive change in the profession has been a rise in the number of women applying for NCARB Records. Since 2011, the percentage of female applicants has been around 40 percent—a marked increase from the 10 percent in the early '90s.



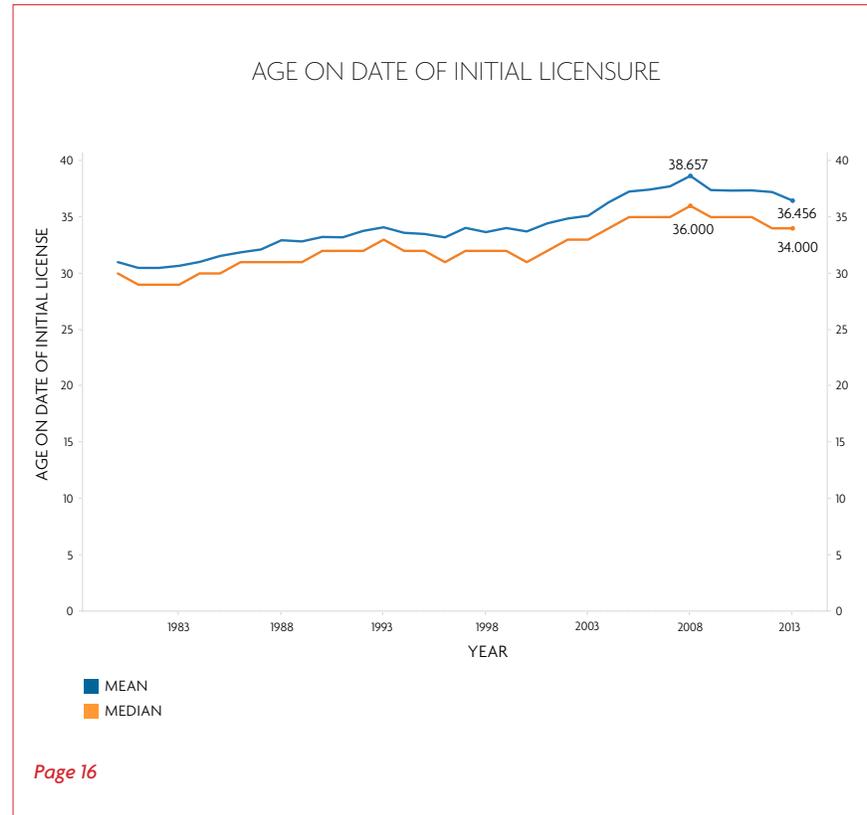
There remains a significant gap, however, in the number of women in supervisory positions. While supervisors tend to be older than most applicants for NCARB Records—and older architects tend to be men—it is perhaps still surprising that women make up only 13 percent of those with NCARB supervisor accounts. This number will be interesting to track as current interns obtain their license and grow into the field.

PEOPLE ARE ENTERING THE PROFESSION AT A YOUNGER AGE.



The age at which interns apply for NCARB Records is as low as it has been since 1980. As one of the first steps on the pathway to licensure, applying for an NCARB Record enables prospective architects to move toward the ultimate goal of acquiring an architect license. NCARB has made program changes to encourage prospective architects to start as early as possible—earning IDP hours while still in school and eliminating minimum duration requirements for experience are recent changes that we hope let people capitalize on their experiences no matter where they are.

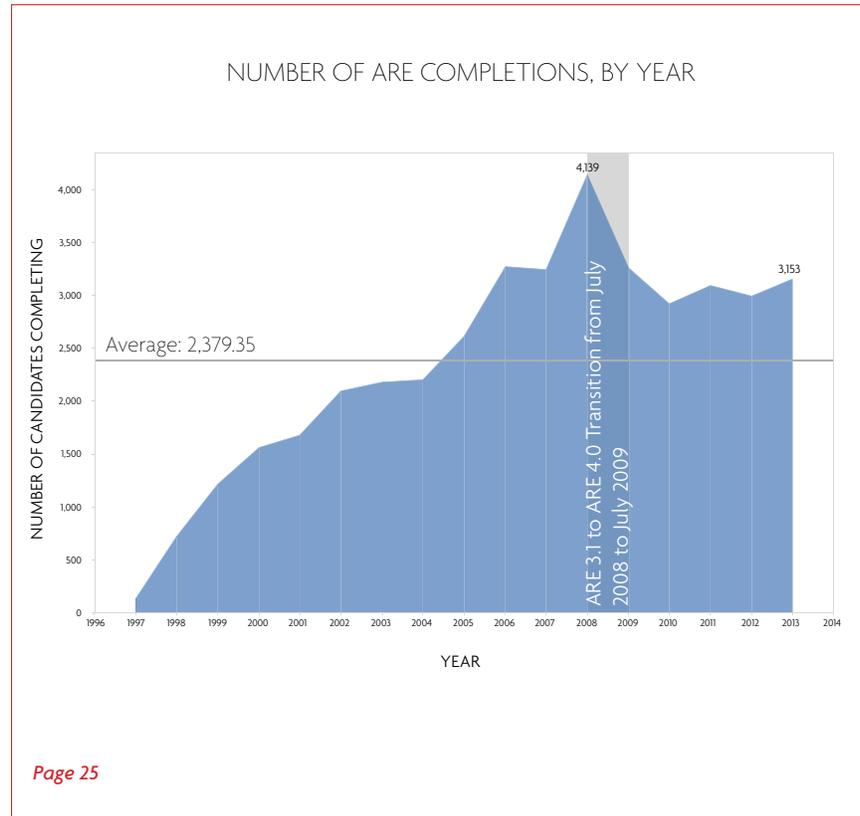
THE AGE AT WHICH PEOPLE ACQUIRE THEIR FIRST LICENSE IS AT A TEN-YEAR LOW.



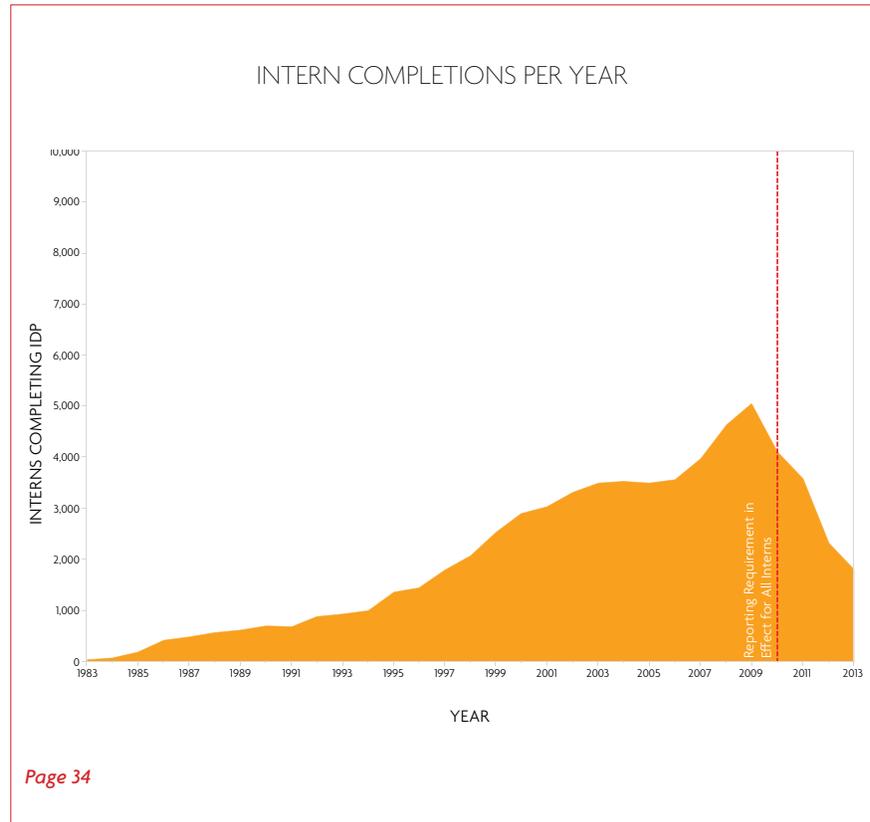
The median age at licensure is as low as it has been since 2004. Architects are becoming licensed more and more quickly over the last 10 years. Part of this may be due to economic conditions—as new projects became relatively scarce, the opportunity cost of choosing to pursue licensure or other paths may have decreased.

This age is still relatively high from a historical standpoint, however, and is worth monitoring.

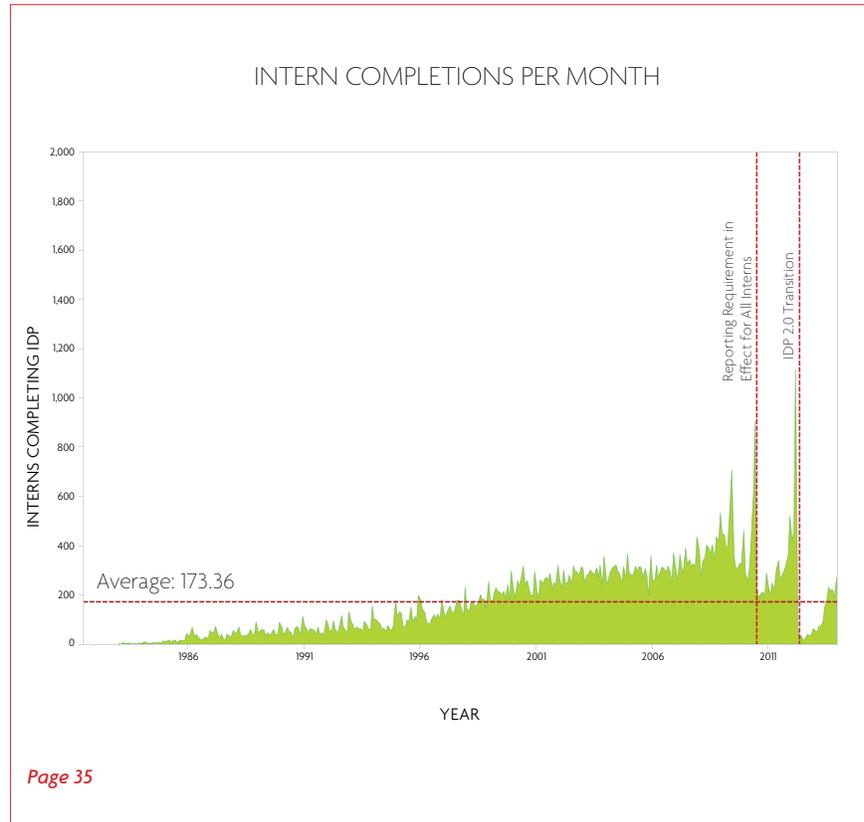
MANY PEOPLE ARE WORKING THEIR WAY TOWARD LICENSURE.



The number of candidates who are completing the ARE remains very high. While not quite at the level of completion in 2008-2009, when the exam transitioned from ARE 3.1 to 4.0, the number of people who complete the ARE is steady at around 3,000 per year. This represents a healthy number of new professionals completing one of the last steps toward licensure.



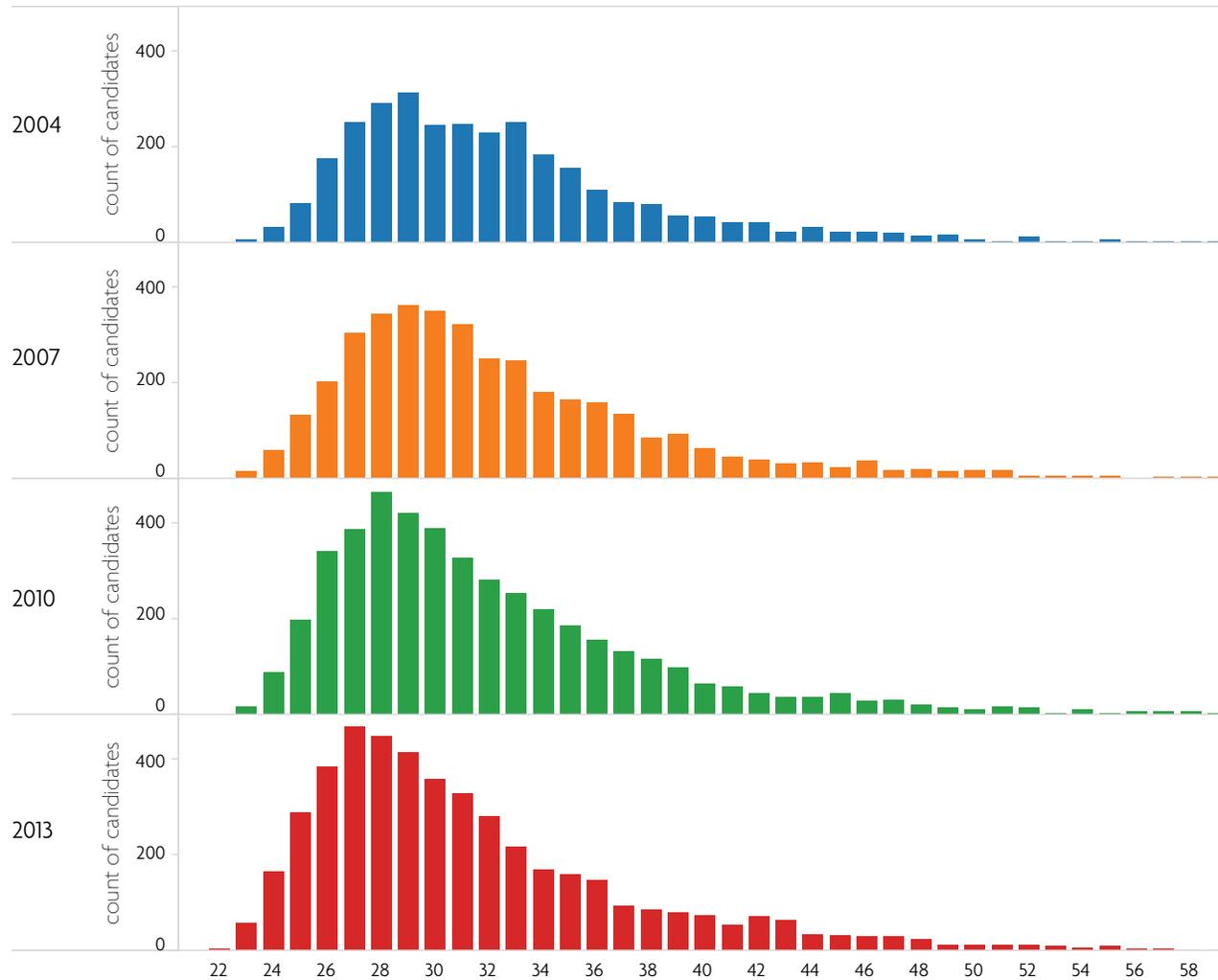
The number of people completing the IDP has decreased from its 2009 peak, but the distribution of completion times around these years has a lot to do with strategic action by interns. NCARB program changes come into effect at certain times, and this creates an incentive for interns to complete—or delay—the completion of a program in order to take advantage of a rule change—see the transitions regarding the reporting requirement and IDP 2.0 on the following page.



If we look at the distribution more granularly, we see massive spikes and drops around NCARB's program changes. The establishment of the reporting requirement in 2010 and the IDP 2.0 transition in April 2012 both demonstrate this strategic behavior and the corresponding lull afterward. Monthly values for IDP completions normalized somewhere around August 2013.

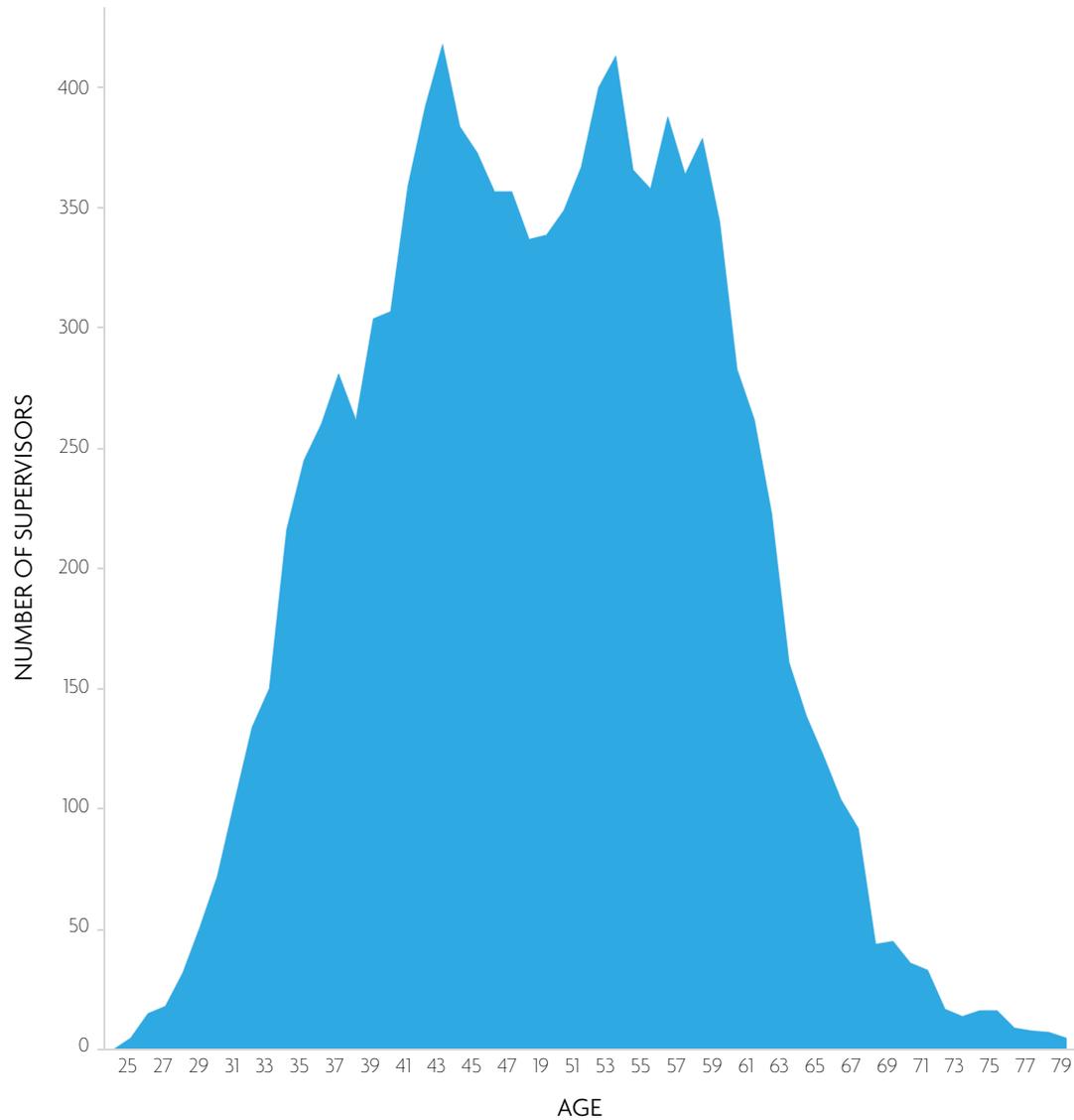
AGE ON DATE OF FIRST TEST, FREQUENCY DISTRIBUTIONS

The candidate's average age on the date of the first test has decreased. This is evident below as the peak of the distribution has shifted slightly leftward over the past 10 years.



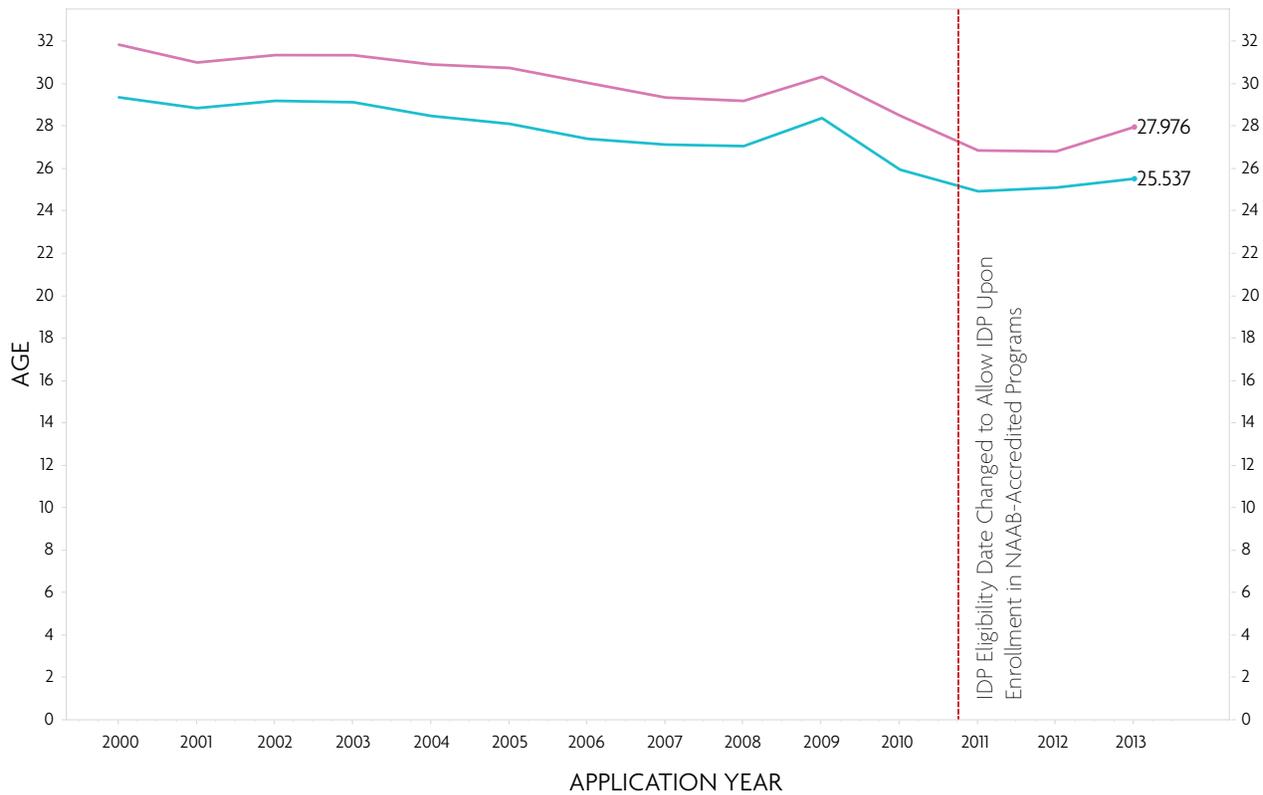
AGE OF SUPERVISORS

This age data only reflects current NCARB Record holders with an architect record who are linked to supervisor accounts. The distribution shows two peaks—one at age 43 and another at age 53.



AVERAGE AGE OF INTERNS ON DATE OF NCARB APPLICATION

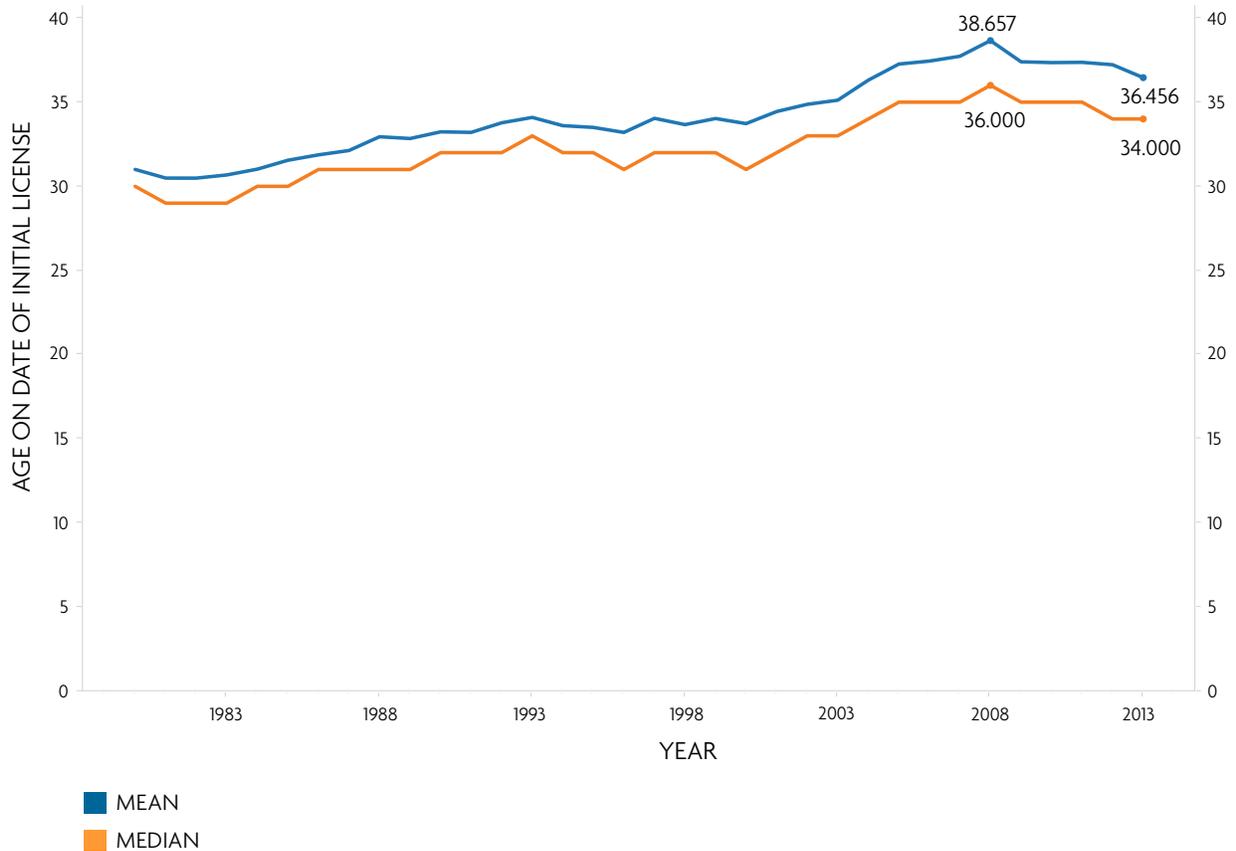
The average age at which an intern starts an NCARB Record has gradually decreased. NCARB policy changes, such as modifications to the IDP eligibility date, offer more opportunities for younger professionals to progress toward licensure.



MEAN
MEDIAN

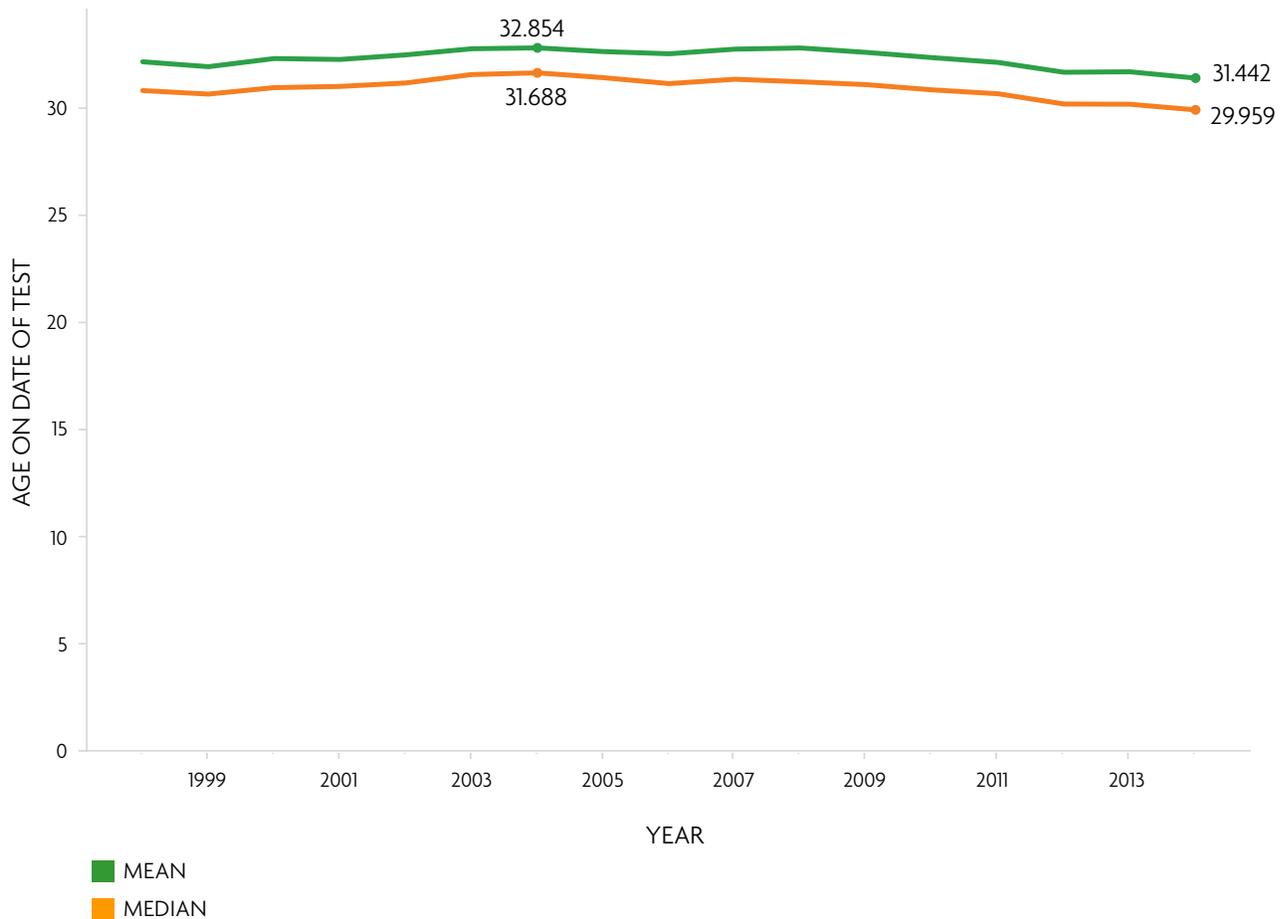
AGE ON DATE OF INITIAL LICENSURE

In 2013, the median age of architects acquiring their initial license was 34. The median age peaked at 36 in 2008.



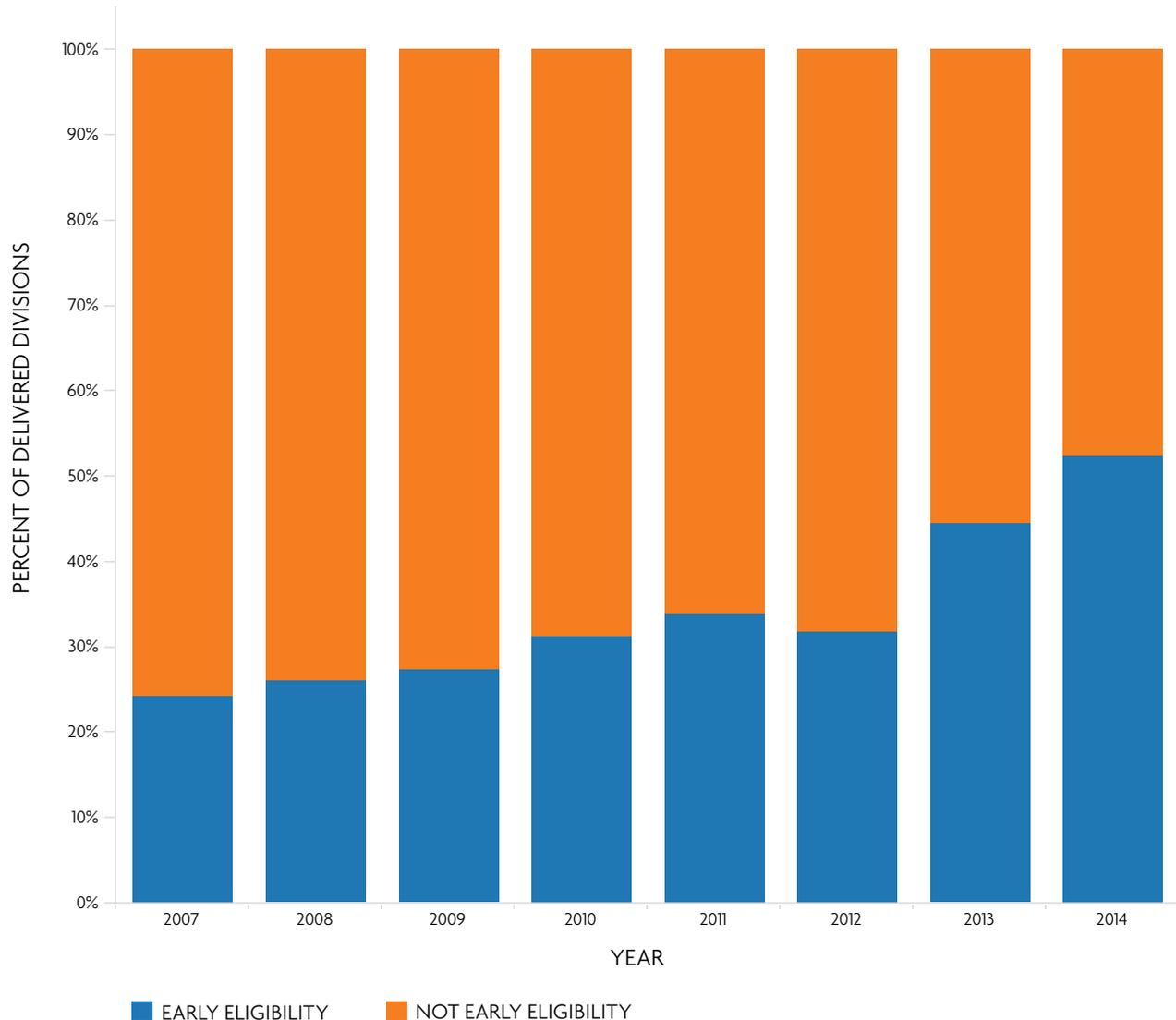
AVERAGE AGE ON DATE OF FIRST TEST, BY YEAR

The average age at which a candidate for the ARE sits for their first exam has demonstrated a slow but steady decrease since its peak in 2004. In 2014 the mean age for first-time testers was 31.442. The median age was 29.959.



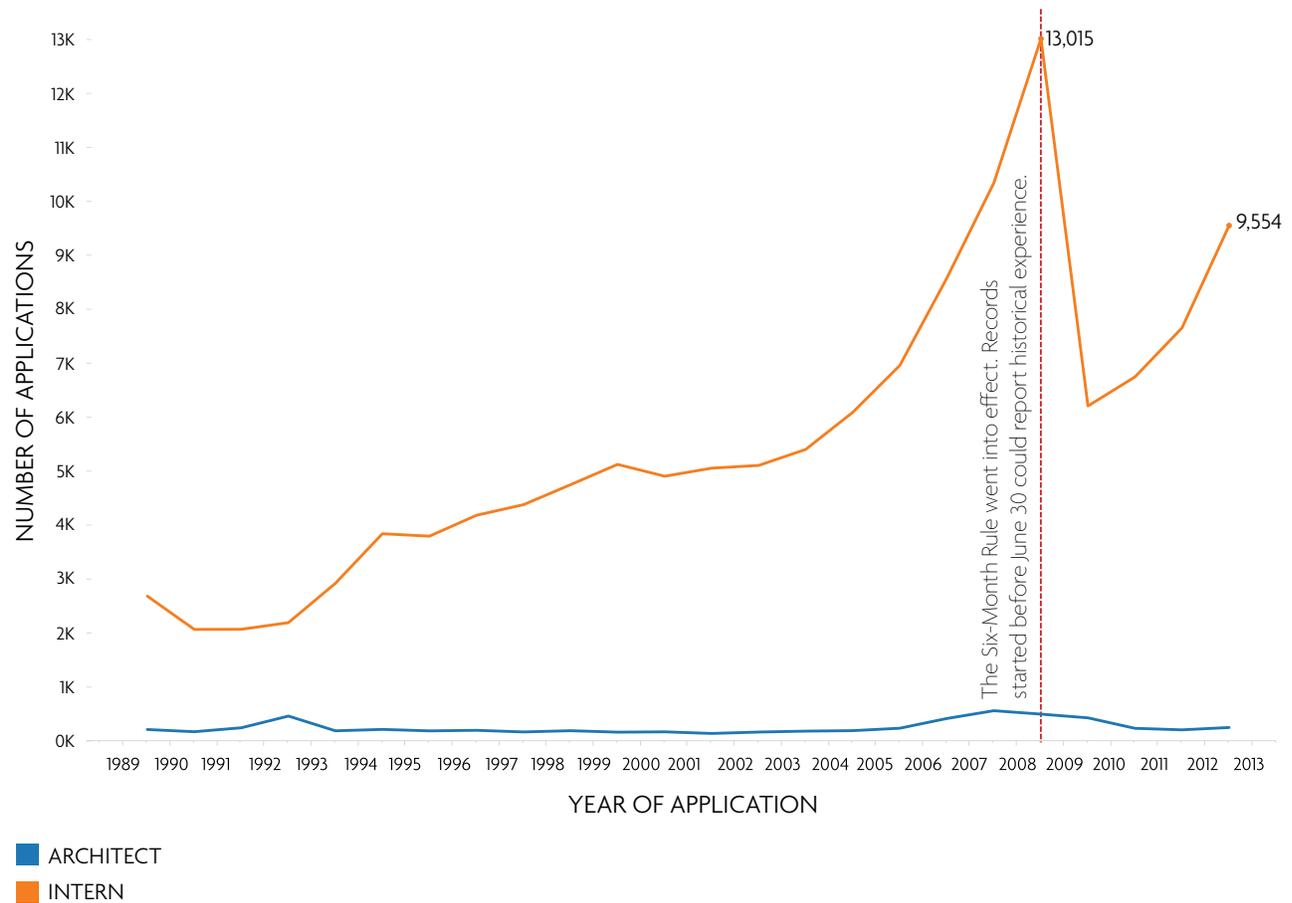
PERCENTAGE OF DIVISIONS ADMINISTERED THROUGH EARLY ELIGIBILITY

One way to compress the timeline to licensure is to take advantage of early eligibility. The number of early eligibility divisions—those taken before completion of IDP—has been increasing since its establishment in 2007. So far in 2014, over half of all delivered divisions have been early eligibility.



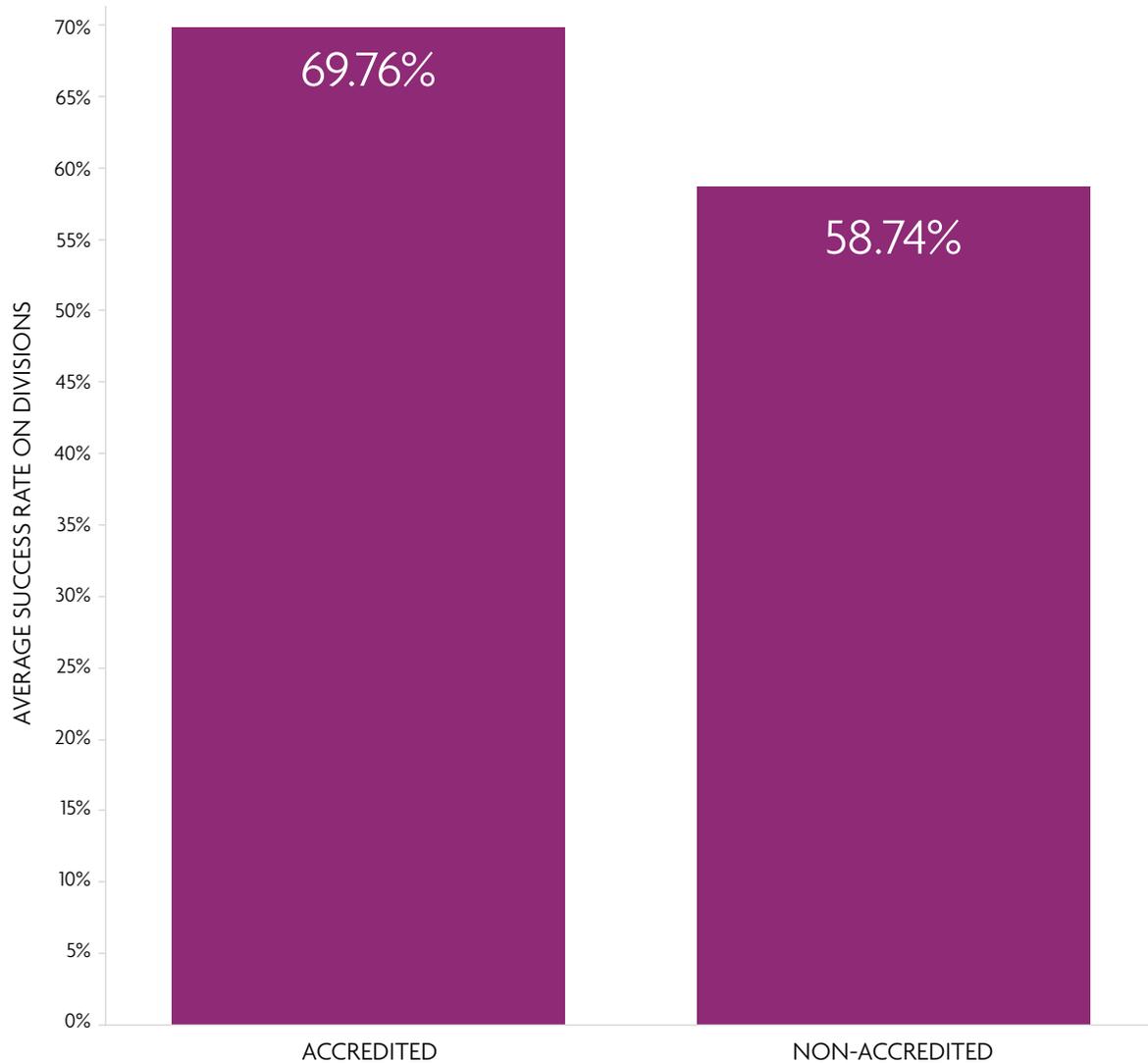
APPLICATIONS FOR AN NCARB RECORD OVER TIME

The number of interns entering the profession continues to be high. In 2013, over 9,000 new interns started an NCARB Record.



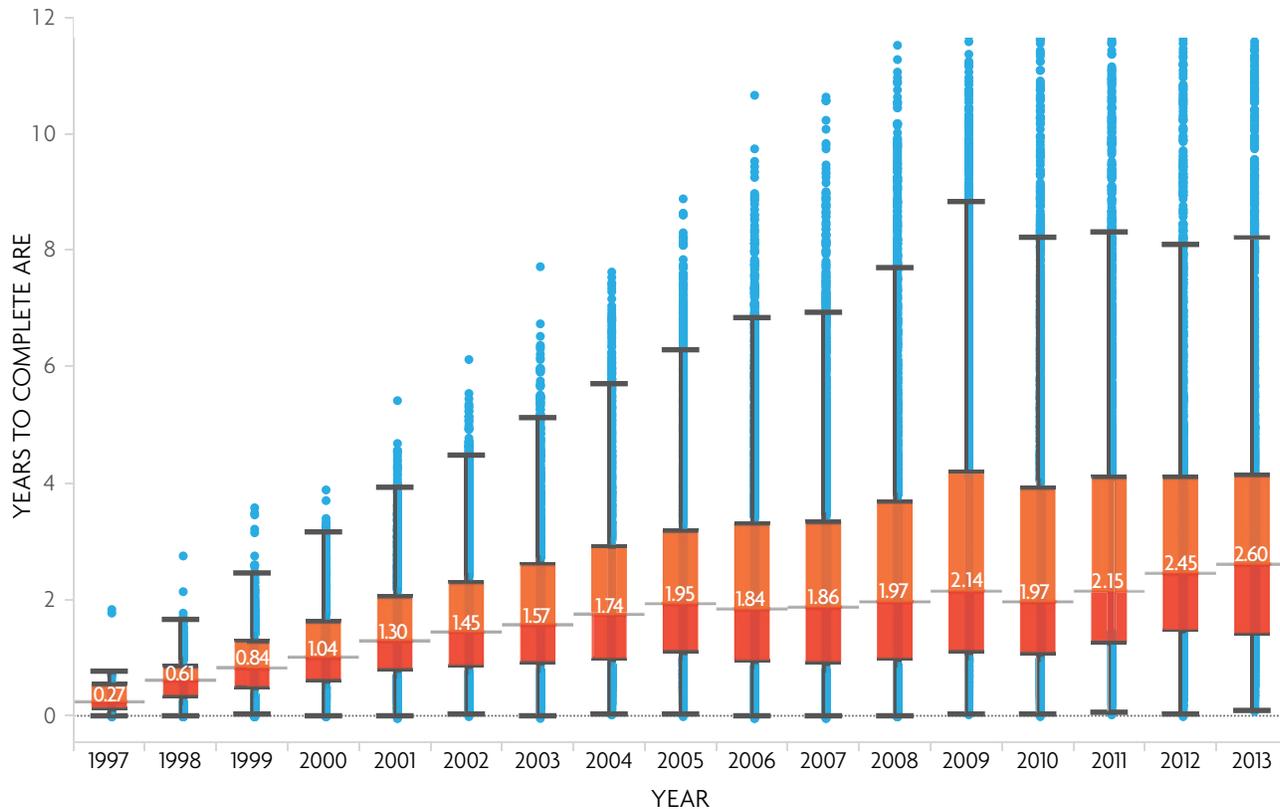
AVERAGE ARE 4.0 DIVISION SUCCESS RATE BY DEGREE PROGRAM TYPE

Candidates from NAAB-accredited degree programs are more likely to be successful taking the ARE 4.0 divisions. It is important to note that different divisions of the ARE have different pass rates. For more details, see the ARE section of www.ncarb.org.



YEARS TO COMPLETE ARE

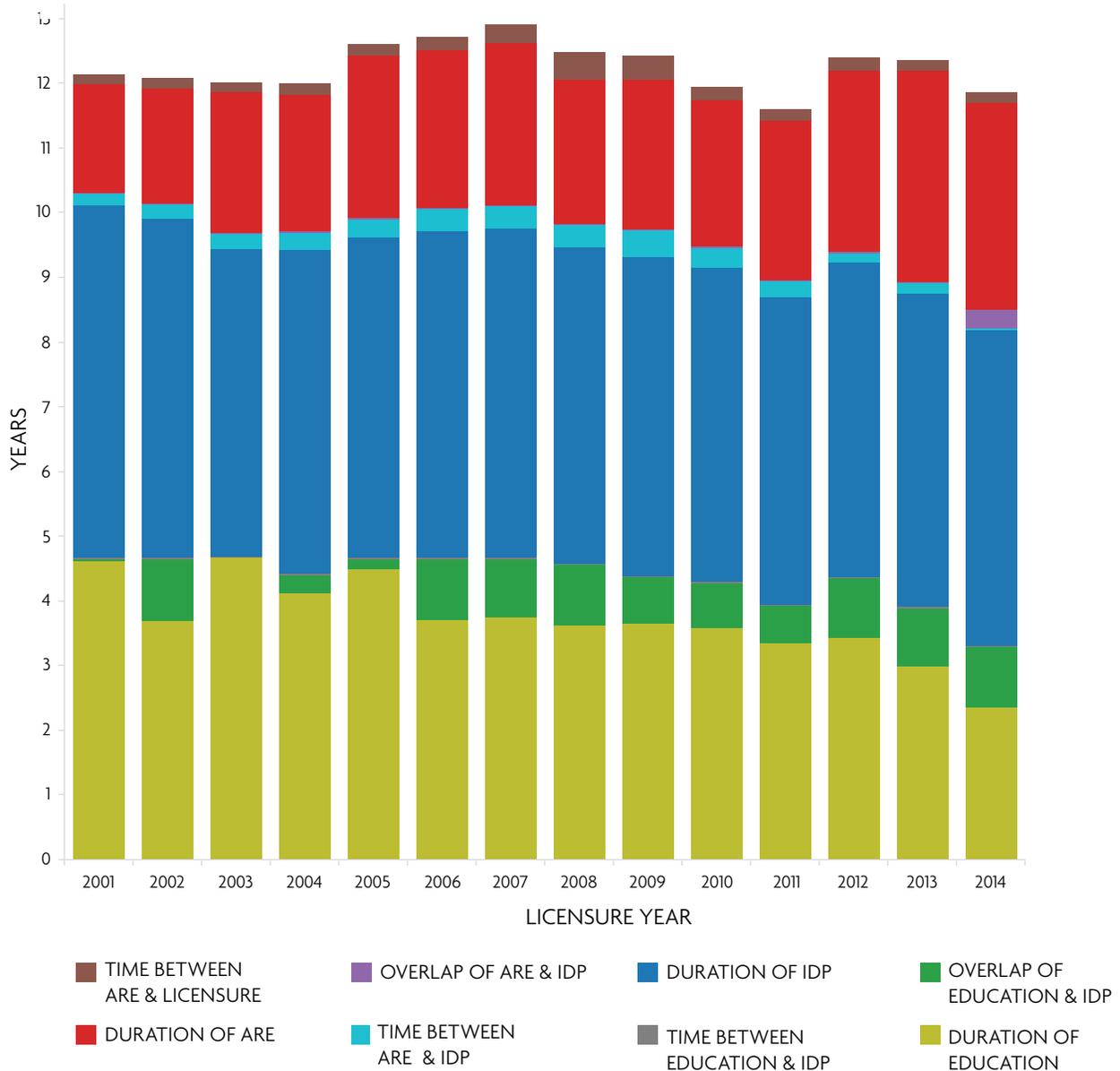
The median time to complete the ARE has generally varied between 1 and 2.5 years since its computerized deployment in 1997. In 2013, the median time to complete the ARE was 2.6 years. One factor leading to an increase in testing times is the establishment and continued popularization of the early eligibility program. As we have previously seen in the Percentage of Divisions Administered Through Early Eligibility chart on page 18, the percentage of early eligibility divisions continues to increase, possibly pushing the start date of testing to be relatively earlier than it has been in the past.



Each blue dot represents a candidate who completed the ARE in the year noted. The bottom of each box represents the number of years at which 25 percent of that year's candidates are complete. The labeled median represents the number of years at which 50 percent of that year's candidates are complete. The top part of the box represents 75 percent. The box plot lets us see not only where the median completion times have changed over time, but how the variation in completion times has changed over time as well.

ARCHITECT TIMELINE

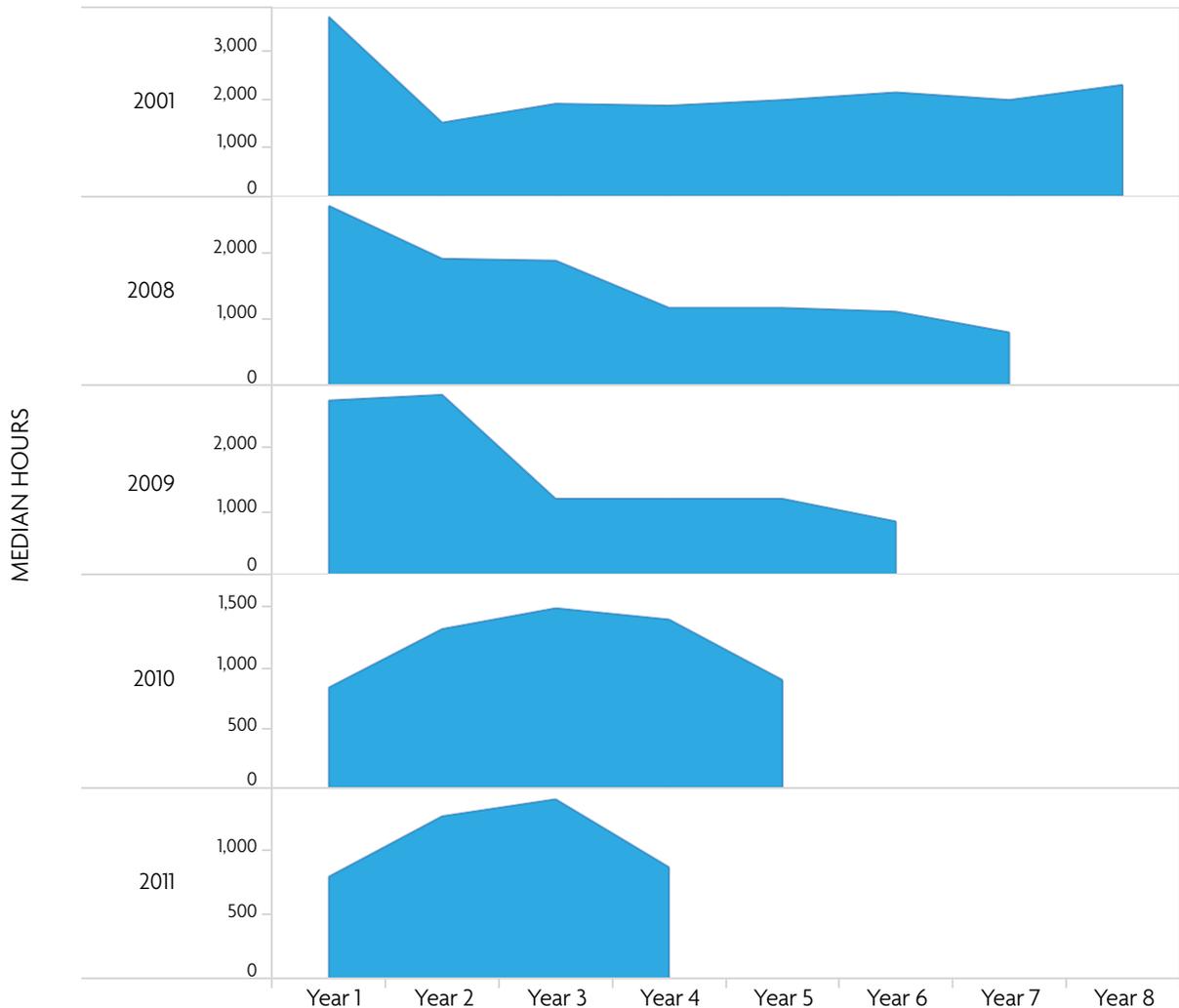
This chart shows median durations at each step of the path to licensure. Of particular note, this chart shows that interns are beginning to take advantage of early eligibility—which allows completion of the IDP and ARE concurrently.



THE CHANGE IN IDP REPORTING OVER TIME

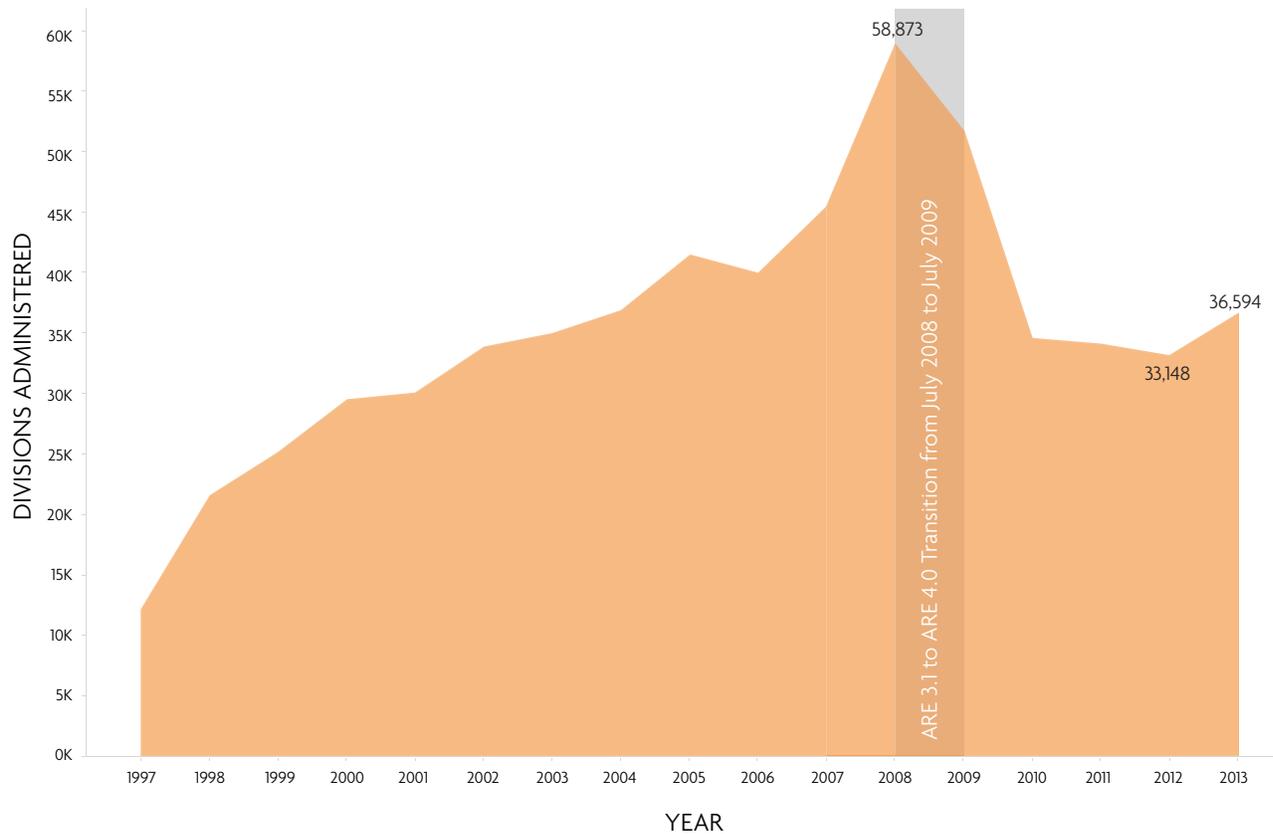
The chart below displays the average number of hours that an intern submits per year in the IDP. Along the left, we have separated interns by their NCARB Record application year. Interns who applied for an NCARB Record in 2001, for example, submitted an average of 3,713 hours in their first year.

Since the implementation of the Reporting Requirement, the way that interns submit hours has changed. Instead of opening a Record and recording a large number of historical hours, the intern now opens the Record and enters hours as work experience occurs. The highest number of hours per year now occurs in the third year of the IDP as reflected in the 2010 and 2011 sections below.



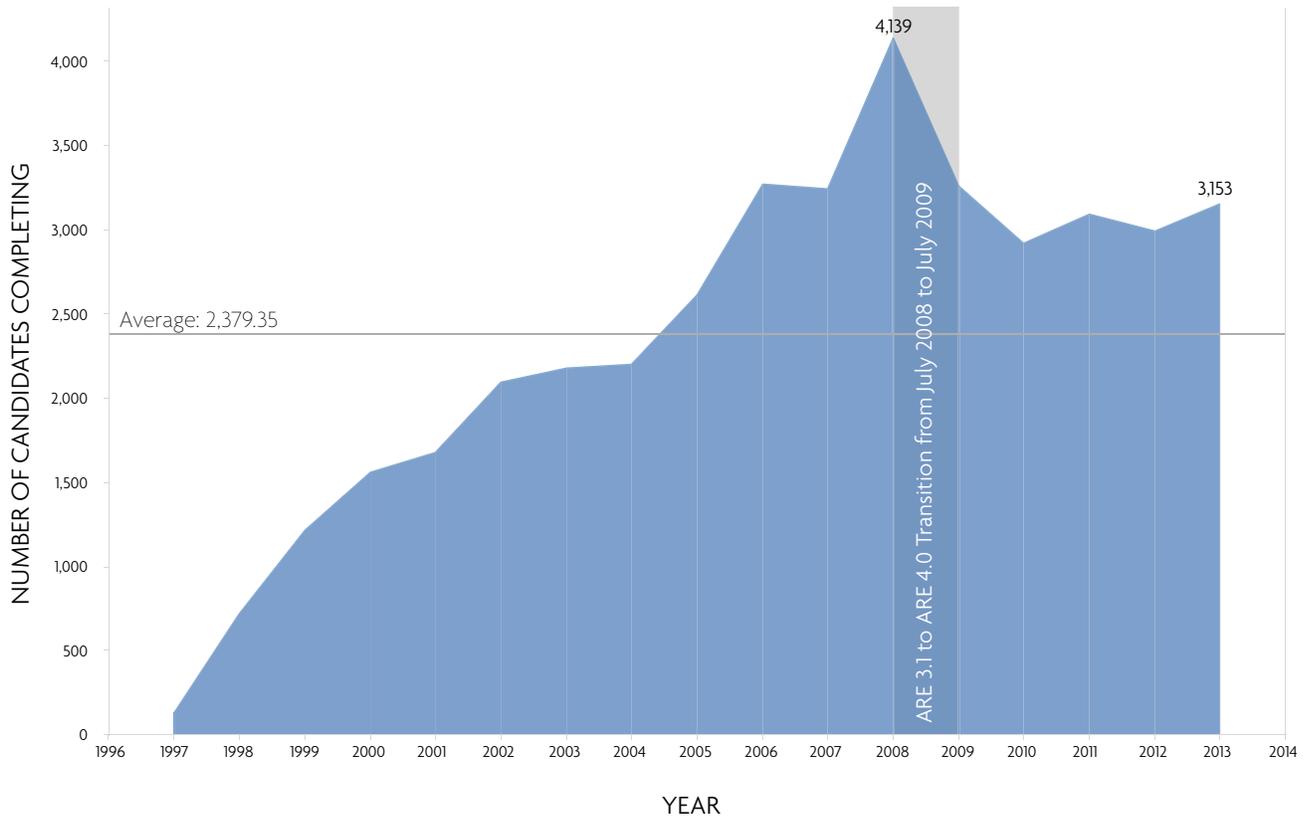
ARE DIVISIONS ADMINISTERED OVER TIME

In 2013, 36,594 divisions of the ARE were delivered to candidates, an increase of 3,446 over 2012. This increase happened despite a two-month blackout between July and August 2013, during which we improved our systems with the launch of My Examination. During the blackout, no exams were administered.



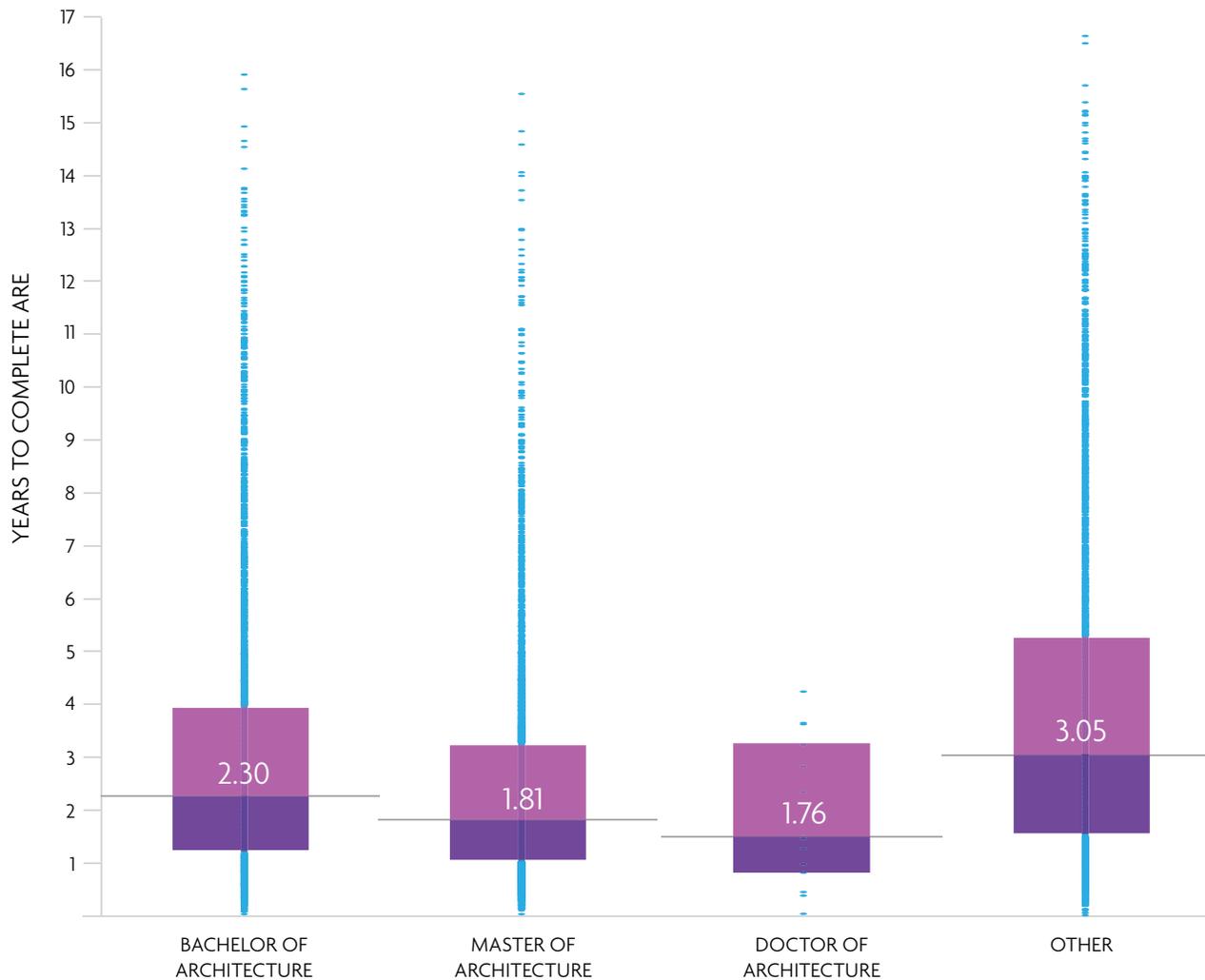
NUMBER OF ARE COMPLETIONS, BY YEAR

This chart shows ARE completions over time. Since 1997, the average number of candidates completing the ARE each year is 2,379. ARE 3.1 ran from February 2006 until the transition to ARE 4.0 in July 2009.



TIME TO COMPLETE ARE 4.0 BY DEGREE TYPE

The time to complete ARE 4.0 varies by degree type. Of the degree types below, candidates with a Doctorate of Architecture complete the ARE the fastest. Candidates with a Master of Architecture from a NAAB-accredited program complete it at a rate of 1.81 years, and candidates with Bachelors of Architecture from a NAAB-accredited program complete it at a median rate of 2.30 years. The median value for all other degree types is 3.05 years.

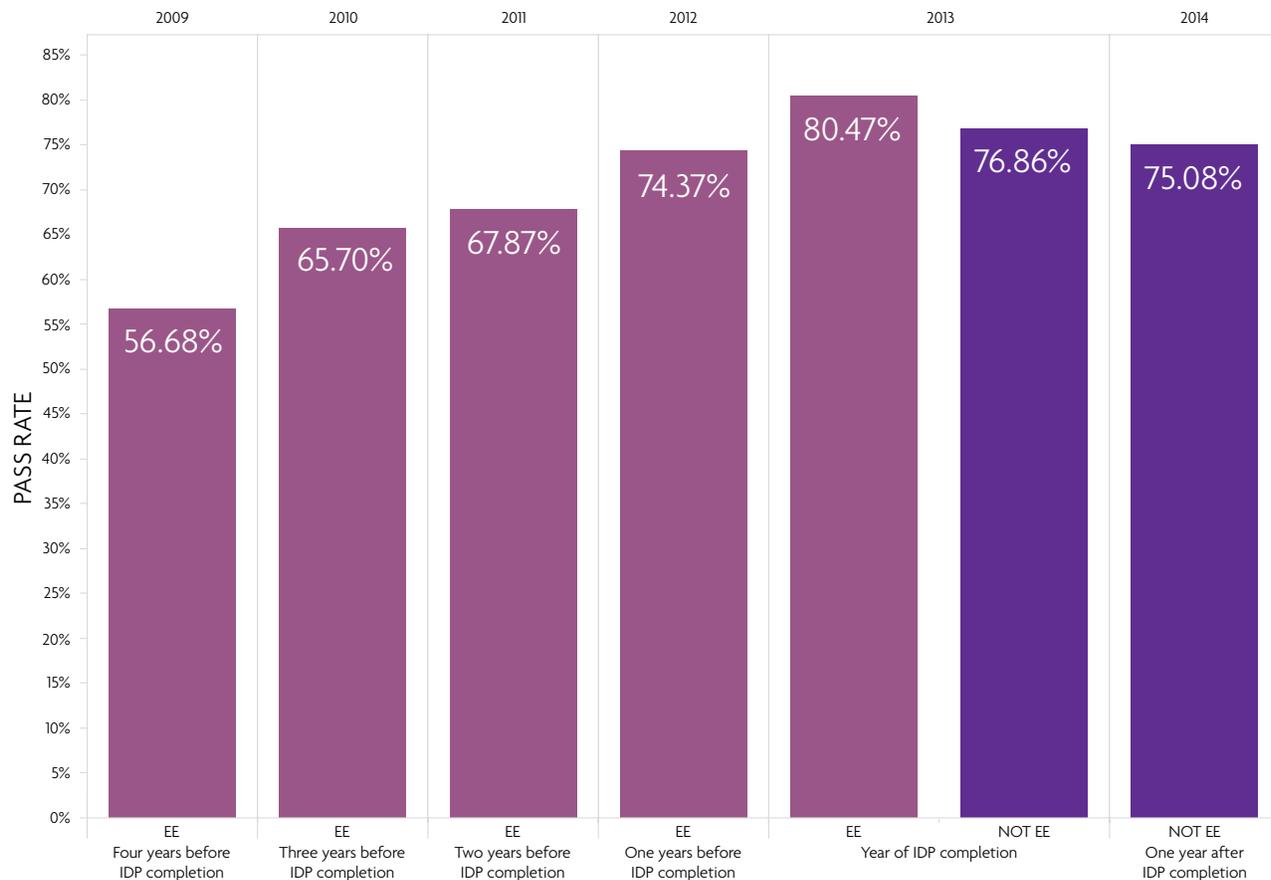


ARE SUCCESS RATE FOR INTERNS COMPLETING IDP IN 2013, BY YEARS FROM IDP COMPLETION

“Early eligibility” allows candidates to begin taking the ARE before completing the IDP. This chart shows that candidates who took the divisions just before completing the IDP tend to have the highest success rates.

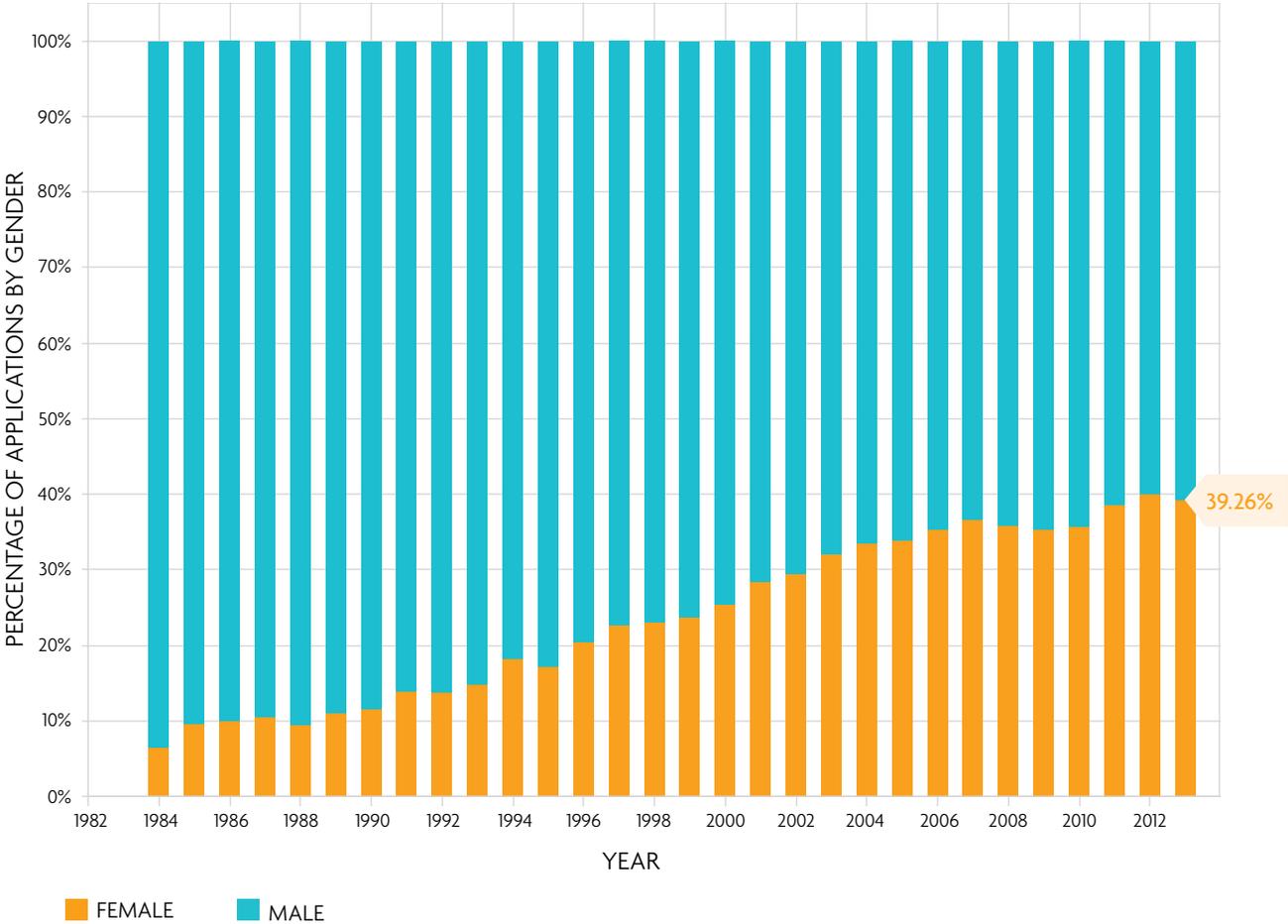
In 2013, candidates taking the exams two to four years before completion of the IDP tend to have lower success rates. Candidates starting the ARE within a year of IDP completion have a higher pass rate, and candidates taking the ARE through early eligibility have the highest. The success rates drops off as interns delay taking the ARE after completing the IDP.

These results hold for every year ARE 4.0 has been offered. It’s possible that candidates already heavily invested in the licensing process and focused on completing the IDP are also studying and preparing for the ARE. It is also possible that completing the requisite hours for the IDP—and doing so recently—also increases the success rate on ARE divisions.



NCARB RECORD APPLICATIONS BY GENDER

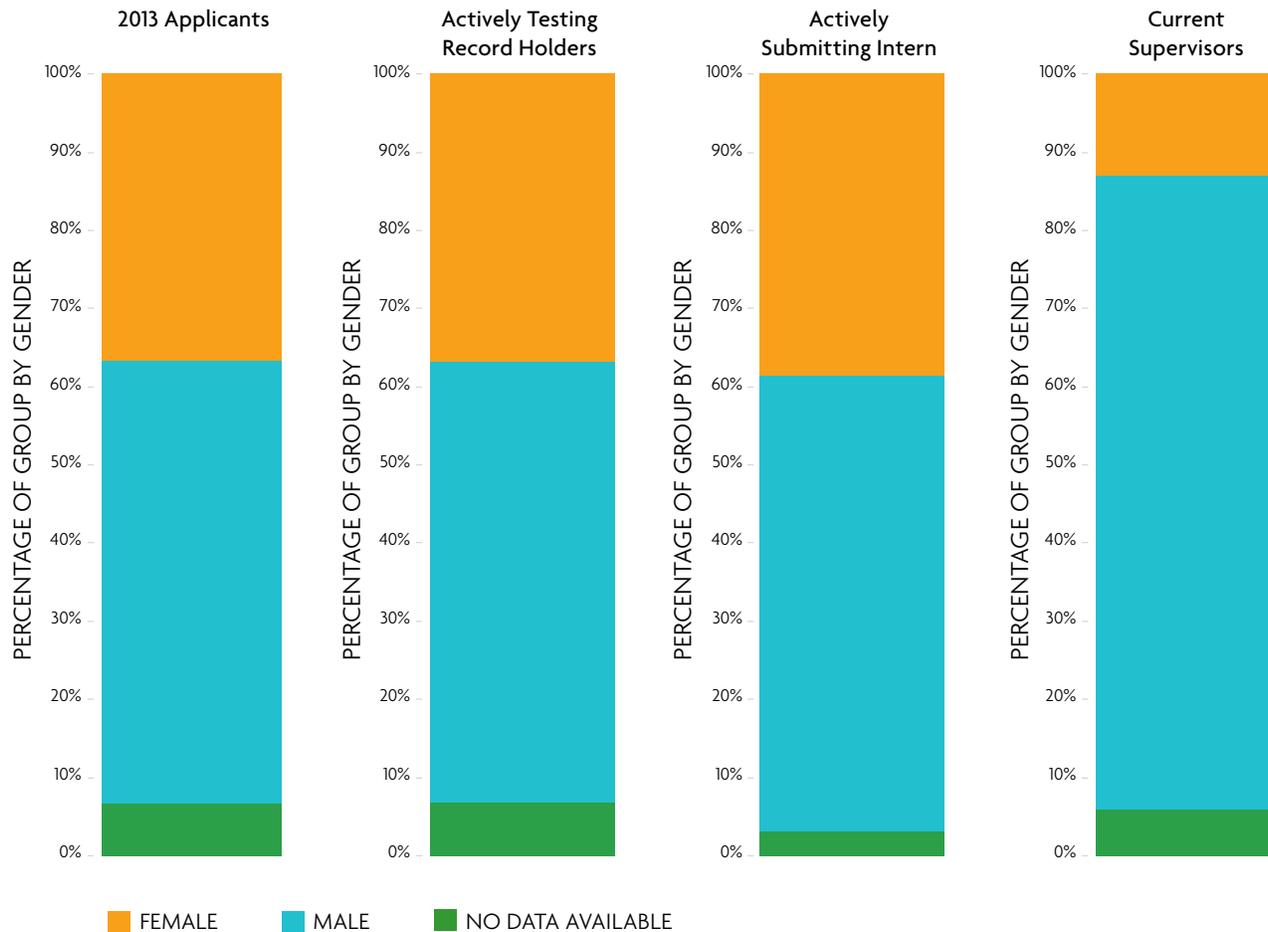
The percentage of women applying for an NCARB Record continues to be around 40 percent.



GENDER

The gender parity is roughly the same for NCARB Record applicants, actively testing Record holders, and active interns. Yet there is a very significant gender gap among current supervisors. It should be noted that the data is limited to supervisors who have active NCARB Records.

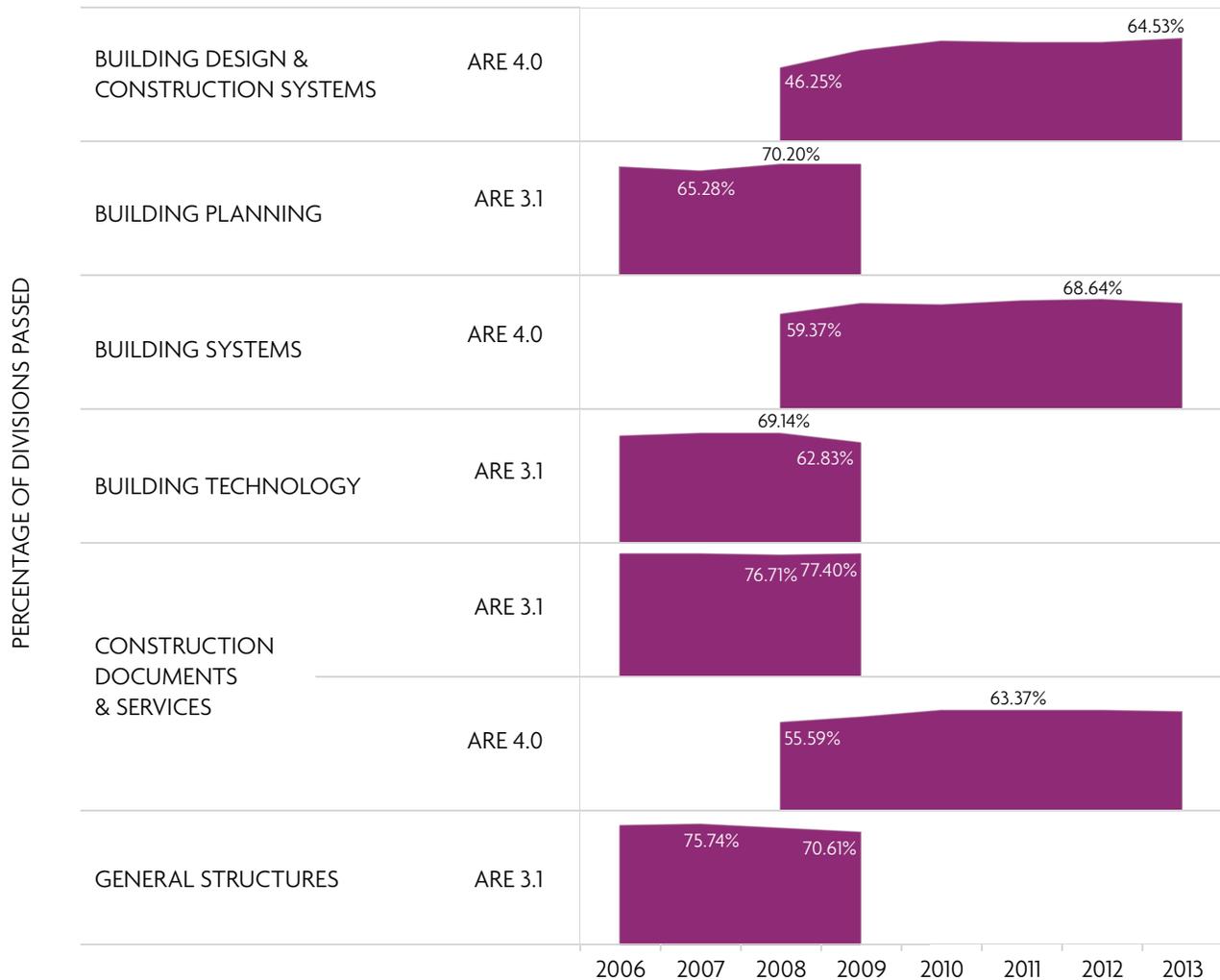
In order to be actively testing or actively submitting experience, a person must have tested or submitted experience within the past six months, respectively. Current supervisors are those active NCARB Record holders who are also supervisors on the My Experience section of the website.



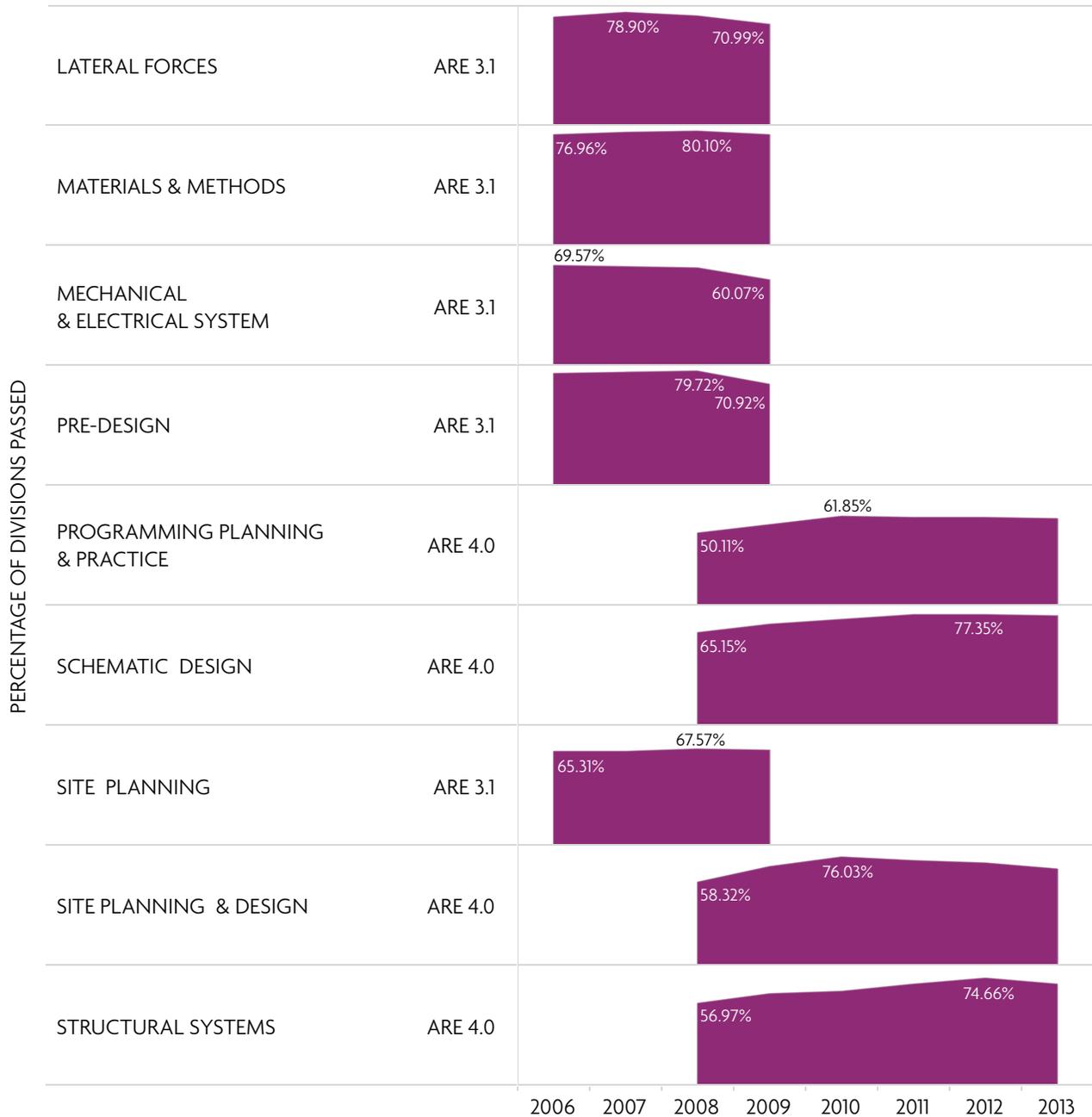
ARE DIVISION SUCCESS RATES OVER TIME

This chart shows the average success rate of each division and ARE version over time. ARE 3.1 ran from February 2006 until the transition to ARE 4.0 in July 2009.

The labeled values reflect the highest and lowest success rates for that division.

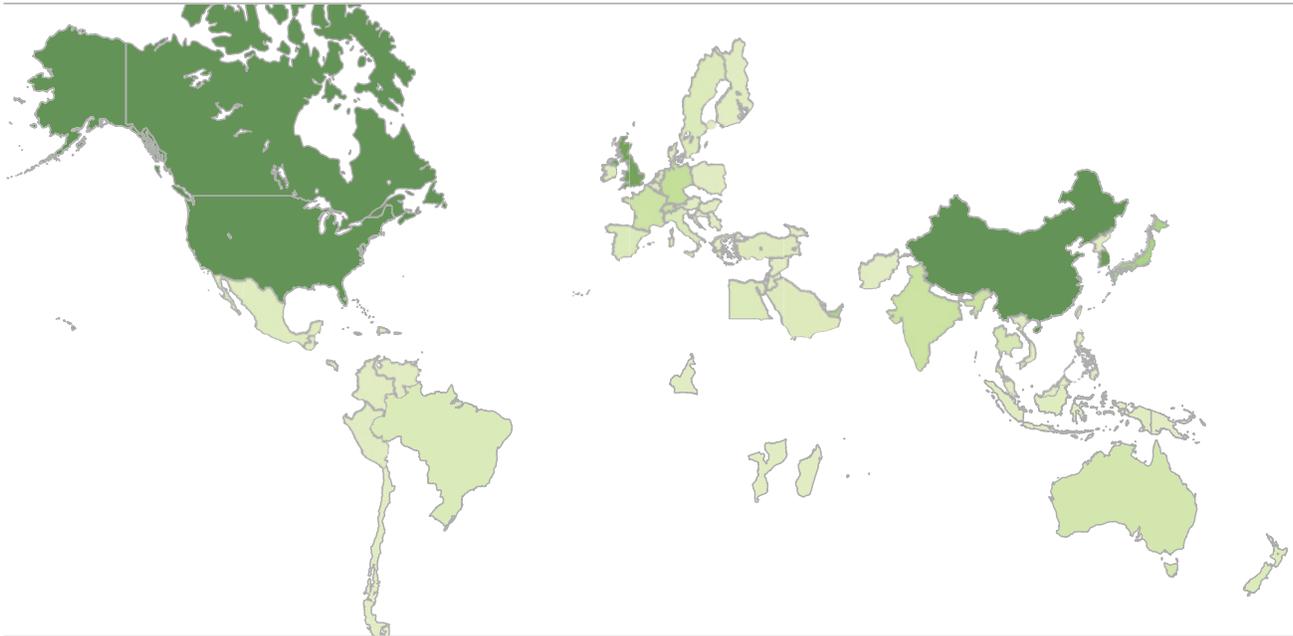


ARE DIVISION SUCCESS RATES OVER TIME (CONTINUED)



NCARB RECORD HOLDERS AROUND THE WORLD

NCARB Record holders are based around the world. Outside the United States and Canada, the majority of Record holders live in the United Kingdom and China, where NCARB has recently opened test centers for the ARE. There also are a significant number of Record holders in South Korea, Germany, France, and Australia.

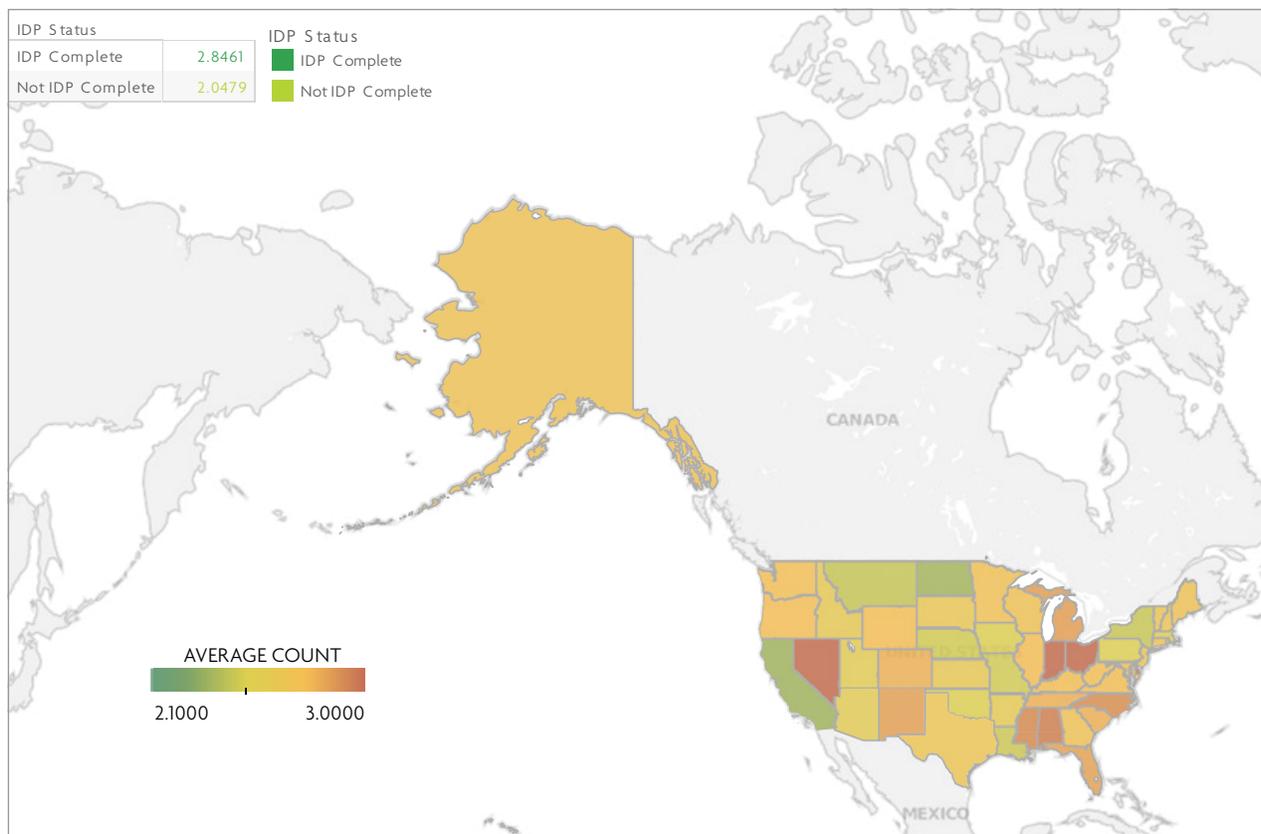


NUMBER OF FIRMS INTERNS WORK AT BY STATE

The average person works for slightly less than three firms while completing the IDP. This can include internships during school and summer breaks.

The number of firms at which the average intern works varies slightly across the country. California and North Dakota have the lowest average number of firms per IDP completion, while interns in Nevada, Indiana, and Ohio tend to work for slightly more firms. Interns are most likely to switch firms early into the internship. As they progress in the IDP process, they are less likely to change firms.

It is important to note that this data is limited to the information that interns submit for the IDP. A firm for which the intern did not submit hours is not captured in these metrics. An intern is assigned to a jurisdiction based on the state in which he or she became eligible to take the ARE.

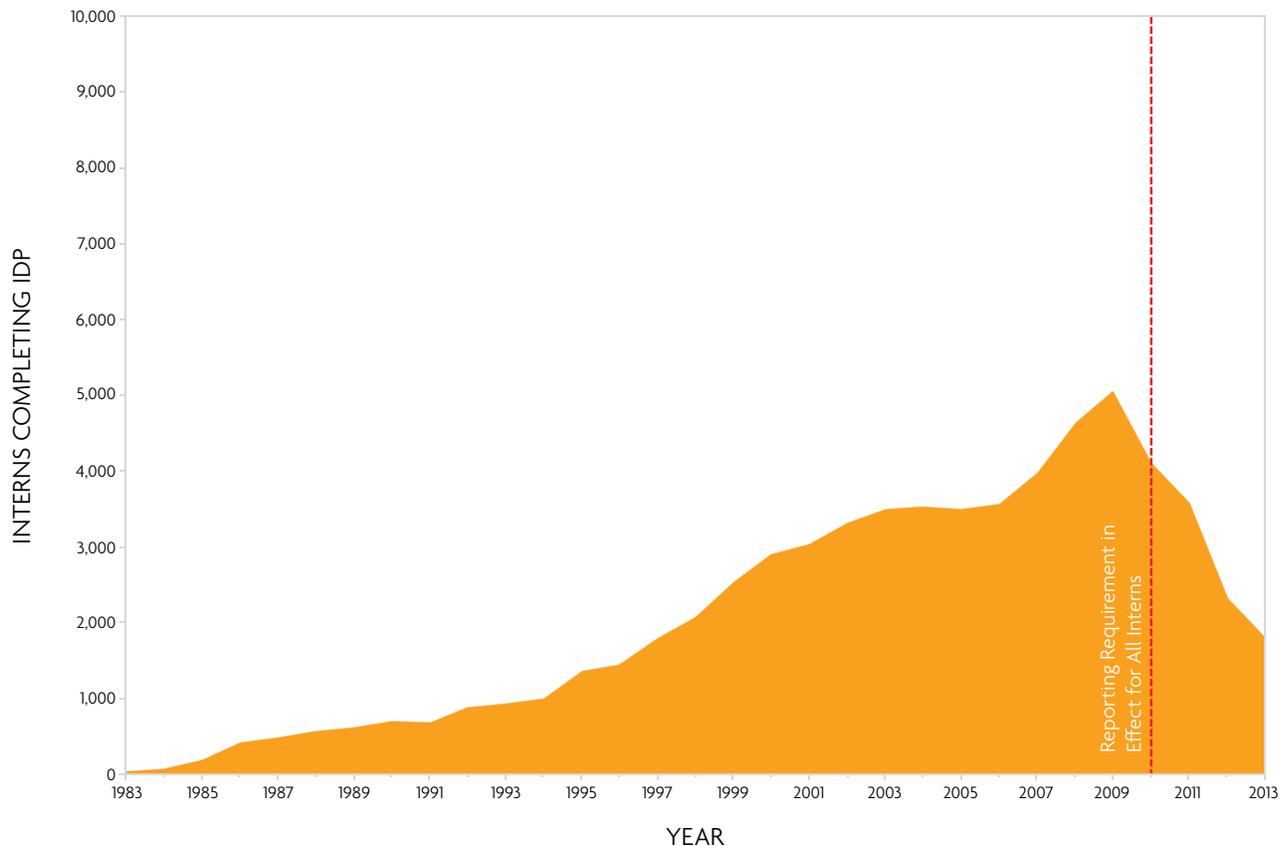


INTERN COMPLETIONS PER YEAR

Since 1983, an average of 2,080 interns complete the IDP every year. The highest number of IDP completions in a given year was 2009 when over 5,000 interns finished the program. In 2013, 1,807 interns completed the IDP.

One reason for the recent decrease in IDP completions is the strategic behavior of interns who hurried to complete the IDP in 2012 before the rollover to IDP 2.0. Similar falloffs occur after major program changes as completion dates become bunched before transitions or policy changes.

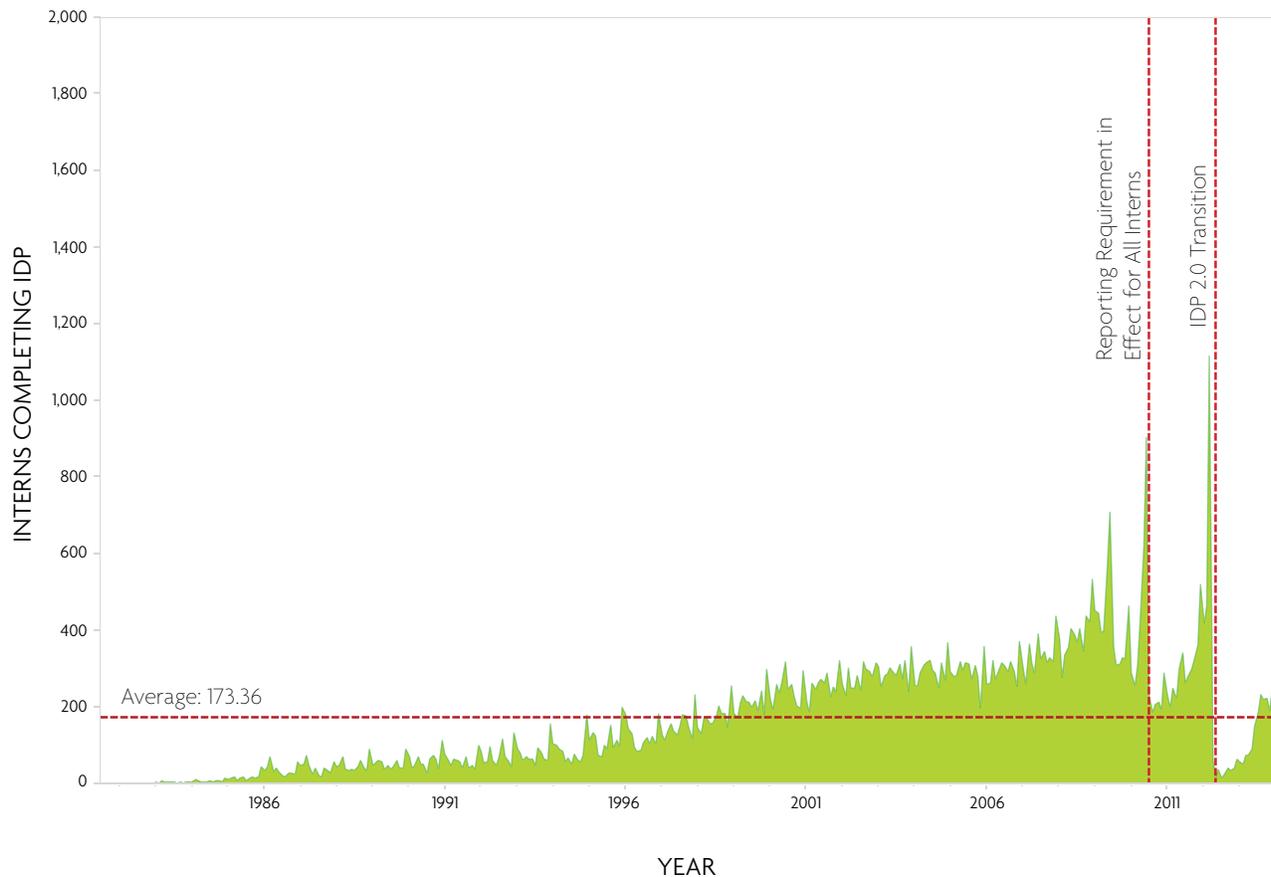
Additionally, for more than a year the Council has been looking at ways to make IDP more efficient for those seeking licensure. We've been working with our partner organizations, volunteers from state boards, and even interns to move the program forward.



INTERN COMPLETIONS PER MONTH

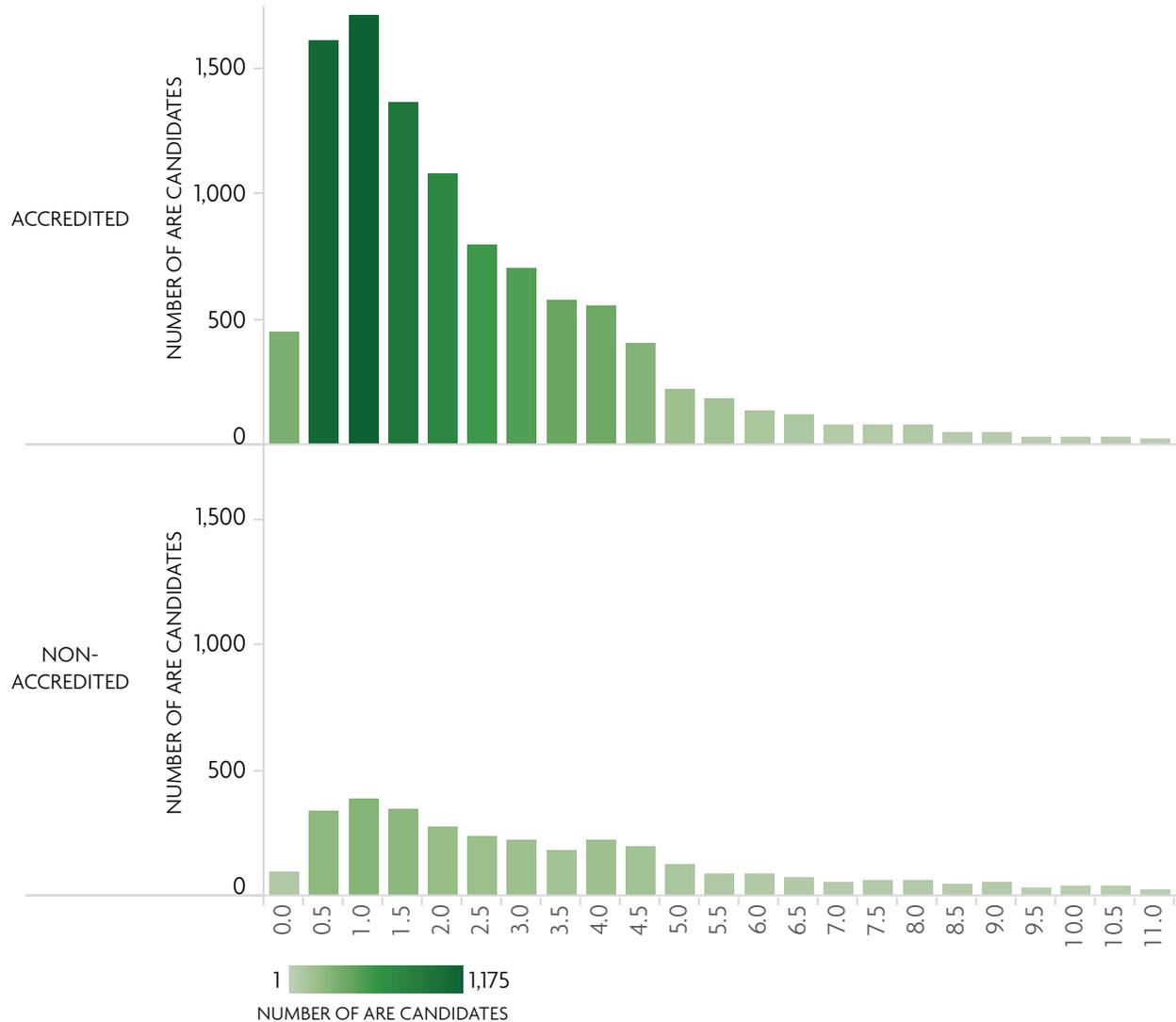
Since the mid-1980s, an average of 173 interns complete the IDP each year. The program has seen large spikes of completion before major changes to the program have gone into effect—including implementation of the reporting requirement (2009) and IDP 2.0 (2012). These large volumes may have contributed to the significant drop in completions in the last two years, but the numbers appear to be rebounding.

Additionally, for more than a year the Council has been looking at ways to make IDP more efficient for those seeking licensure. We've been working with our partner organizations, volunteers from state boards, and interns to move the program forward.



YEARS BETWEEN FIRST DIVISION AND EXAM COMPLETION BY CANDIDATE DEGREE PROGRAM TYPE

The number of candidates with a degree from a NAAB-accredited program who took the ARE 4.0 divisions greatly outnumbers the number of candidates without a degree from a NAAB-accredited program. Additionally, candidates with a degree from a NAAB-accredited program tend to complete the ARE faster.



APPENDIX

GENERAL DEFINITIONS

Mean:

This is what most people think of when they think of the “average.” It is the sum of all observations, divided by the number of observations.

Ex: For the observations {0,5,4,9,10,14,2} the mean is $(0+5+4+9+10+14+2)/7 = 6.285$

Median:

This is another measure of central tendency. When all observations are ordered from smallest to largest, it is the value that divides the sequence exactly in half.

Ex: For the observations {0,5,4,9,10,14,2} the median is {0,2,4,5,9,10,14} = 5

If the sequence contains an even number of values, the median is the mean of the two central values.

For the observations {0,5,4,9,10,14,2,16} the median is {0,2,4,5,9,10,14,16} = $(5+9)/2 = 7$

One advantage of using the median as opposed to the mean is robustness; unlike the mean, the median is not dramatically affected by extreme observations. It may be a better choice for describing the “typical” value for many of the included metrics.

First Quartile:

25 percent of the distribution is below this value.

Third Quartile:

75 percent of the distribution is below this value.

TERM DEFINITIONS

Initial Licensure Date:

Takes the “date licensed” date from each NCARB Record that is associated with an initial registration.

Graduation Date:

This is the graduation date for the earliest reported education information. When available, this is the earliest reported degree from a NAAB-accredited program.

Date of Birth:

Self-reported birth date in Record.

Application Date:

The date on which the Record holder applied for his or her NCARB Record.

APPENDIX

TERM DEFINITIONS *continued*

Gender:

Although applications for an NCARB Record have a “gender” field, this field is frequently not completed. Instead of using this field to track gender, measures that use gender are calculated by using name prefixes. If the value of the name prefix is “Ms.,” “Miss,” or “Mrs.,” then the Record is marked as “female.” If the value of the name prefix is “Mr.,” the Record is marked as “male.”

Record Type:

Generally, we are interested in the Record type at the time of application. These are “Intern Records” and “Architect Records.”

NAAB:

National Architectural Accrediting Board.

Degree Type:

This is the name of the degree associated with the earliest reported education information. When provided, this is the earliest reported degree from a NAAB-accredited program.

Intern Development Program (IDP) Start Date:

This is the earliest date that is associated with a verified experience in an NCARB Record.

IDP End Date:

This is the last day of the last verified experience report that occurred before the IDP complete date.

IDP Complete Date:

When a Record is evaluated and marked as having satisfied all IDP requirements, it is date-stamped with an “IDP complete date.”

Architect Registration Examination®**(ARE®) Complete Date:**

This is the date on which a candidate has passed the necessary divisions of the ARE in order for the examination to be considered complete.

First Test Date:

This is the date on which a candidate takes his or her first division of the ARE.

Early Eligibility:

Some jurisdictions allow for candidates to pursue the ARE prior to completion of the IDP.

Reporting Requirement:

Interns need to report experience in reporting periods of no longer than six months and within two months of completion of each reporting period.



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