

NCARB BY THE NUMBERS

2022 EDITION



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Welcome to the 2022 NCARB by the Numbers

With each edition of *NCARB by the Numbers*, our data analysis and presentation have evolved as we expand our capabilities and refresh our approach. Our goal, however, remains the same. Through this publication, we seek to present clear, reliable data that allows our readers to comprehend trends along the path to licensure easily. Even more importantly, we hope to enable the regulatory community to make informed decisions that proactively address today's key challenges and opportunities.

Of the changes in this year's report, worth noting is our updated sections on demographics. We've now enhanced our report to capture more accurately the complex, multi-dimensional nature of racial and ethnic identity. Additionally, we've expanded the charts in our "Demographics" and "Navigating the Path" sections to provide more detail on the individuals currently in the licensure pipeline, as well as those who've left it.

In 2021, our community continued to be impacted by the ongoing COVID-19 pandemic. While the architecture profession grapples with the changes brought on by the pandemic, NCARB's data shows that many key indicators of the overall health of the licensure pipeline are on the mend. The number of candidates starting the licensure process, completing the Architect Registration Examination® (ARE®), and becoming licensed all rebounded over the past year.

Also increasing is the overall diversity of the licensure candidate population. While growth in some areas remains slow, it is also steady, and more women and people of color are working toward licensure than ever before.

As we move toward the next iteration of our programs and services, NCARB will utilize the data in this report—along with findings from our joint *Baseline on Belonging* study conducted in partnership with the National Organization of Minority Architects and data from our ambitious Analysis of Practice study—to ensure the path to licensure remains rigorous, future-focused, and accessible.

Now in its 11th edition, this year's *NCARB by the Numbers* provides exclusive insights into key data shaping the architecture community. With the ongoing collaboration of our licensing boards, partner organizations, volunteers, and customers, we can continue to take advantage of the opportunities highlighted in this report and present solutions to the challenges. Together, we can go further.

Michael J. Armstrong

Chief Executive Officer

National Council of Architectural Registration Boards

COVID-19's Impact on Licensure

In 2020-2021, the COVID-19 pandemic impacted industries around the world—including architecture. NCARB's data suggests that while the licensure pipeline is beginning to recover from the initial impact of the pandemic, some effects may continue to be felt for several years.

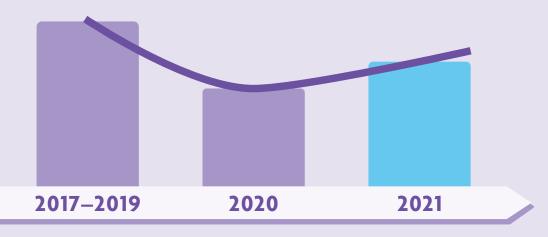
Throughout 2021, NCARB carefully tracked candidates' progress through the Architectural Experience Program (AXP) and Architect Registration Examination (ARE)—as well as other key licensure metrics—to understand how the pandemic impacted their ability to meet career goals in real-time. This special report offers a month-by-month review of those key metrics, compared against numbers seen during the initial year of the pandemic (2020) and averages from the previous three years (2017-2019).



RECOVERING FROM

COVID-19's

Impact on the Path to Licensure



+35% STARTED path to licensure



Candidate progress on

MOVES TOWARD
PRE-PANDEMIC LEVELS



+23%

COMPLETED

path to licensure

FEWER CANDIDATES
REPORTED
WORK EXPERIENCE



40,944 EXAMS TAKEN







Exam Deliveries Rose to Near-Normal Levels

With the launch of online proctoring in December 2020 and the increase in test center availability as COVID-19 precautions relaxed, exam deliveries returned to near-normal levels in 2021.

In 2020, less than 30,000 exams were delivered. In 2021, over 40,000 exams were delivered—still about 11,000 fewer (22%) than the average number delivered in the years leading up to the COVID-19 pandemic, but much closer to pre-pandemic numbers.



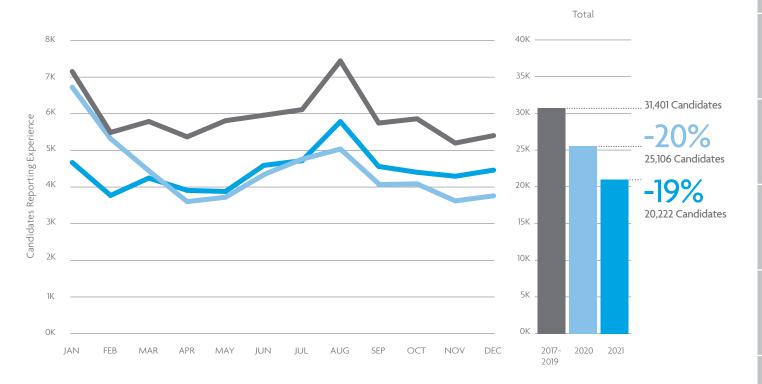
JURISDICTIONS

Number of Candidates Reporting Experience Remained Below Average

In 2021, the number of candidates submitting experience reports each month returned to the prepandemic pattern, with spikes of AXP progress made in January and August. However, the number of candidates submitting reports each month remained lower than the average number seen prepandemic for the majority of the year (-4%).

Toward the end of 2021, the gap between the number of candidates reporting experience before the pandemic and the number seen in 2021 disappeared: in January 2021, 2,000 fewer candidates reported experience compared to the 2017-2019 average. By November 2021, more candidates were reporting experience than the average number seen in the three years before the pandemic.

This suggests that the pandemic's impact on project demand, schedules, and day-to-day architecture work may be lessening.

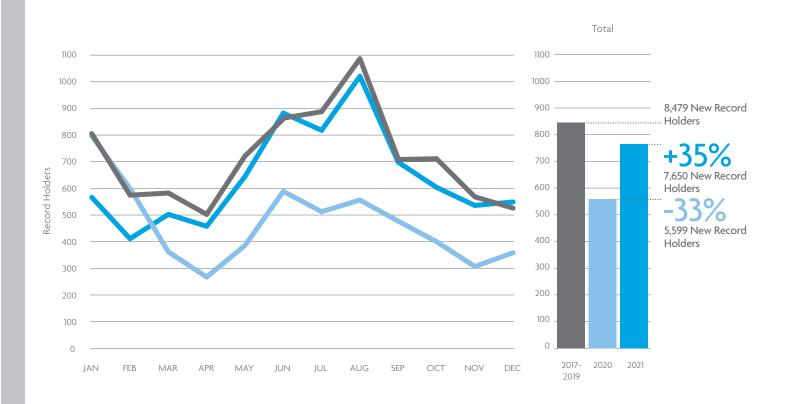


Licensure Candidate Pipeline Makes Strong Recovery

Creating an NCARB Record is often the first step on the path to licensure because candidates use their Records to verify their education, document their professional experience, and take the licensing exam.

Just over 7,500 candidates started a new NCARB Record in 2021—9% fewer than the average number seen in the three years prior to the pandemic. Most of this difference is seen in the first half of 2021. In June 2021, the number of new Records created exceeded pre-pandemic levels and continued to align closely with the average 2017-2019 numbers for the remainder of the year.

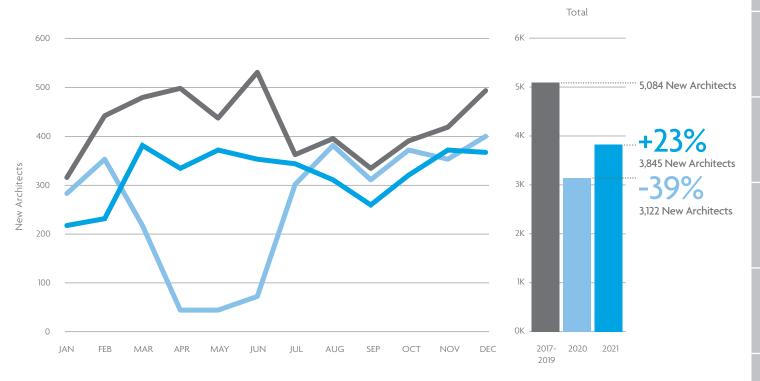
The number of new Records typically peaks in January and June-August as college students open a Record to document professional experience earned over winter and summer breaks.



Number of New Architects on the Rise

The number of new architects fell by 39% in 2020, compared to the three-year average prior to the COVID-19 pandemic. In 2021, the number of new architects began to recover, with nearly 4,000 individuals completing the path to licensure, a 23% increase from 2020. This number is still 24% fewer than the average seen in 2017-2019, suggesting a slow recovery from the effects of the pandemic.

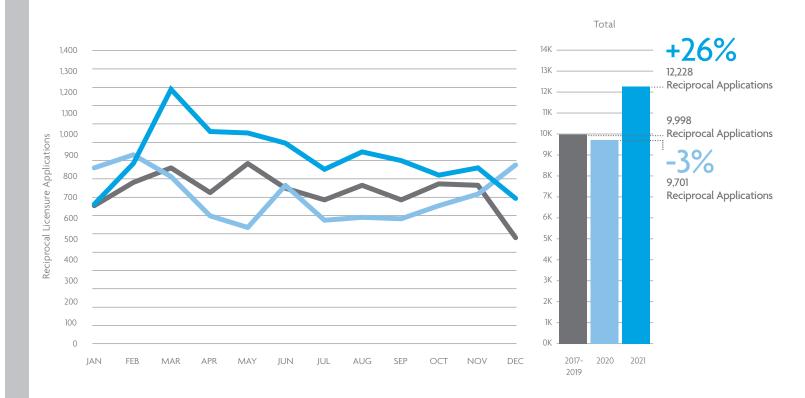
Because completing the ARE is often candidates' final step toward earning a license, the number of newly licensed architects aligns closely with the number of exam completions.



Reciprocal Licensure Applications Exceeded Pre-Pandemic Levels

When architects apply for reciprocal (or out-of-state) licensure, NCARB reviews and sends their NCARB Record to the licensing board. In 2021, transmittals for reciprocal licensure applications exceeded the average number seen in the years prior to the pandemic by 22%.

Despite this, the annual Survey of Architectural Registration Boards showed that overall reciprocal licenses held in the United States fell slightly in 2021. This could result from architects giving up licenses held in certain states and pursuing new licenses in others to pursue work in new locations based on project demand. Additionally, retiring architects sometimes allow their reciprocal licenses to lapse while maintaining their license in their home state.



State of Licensure

While the COVID-19 pandemic continued to impact the architecture profession in 2021, the number of U.S. architects remained steady. There are just over 121,600 architects licensed across the 55 U.S. jurisdictions. Those architects also hold roughly 136,000 reciprocal (out-of-state) licenses—a slight decline compared to 2020.

The number of candidates working toward completing the path to licensure rose by 7% in 2021, with over 32,000 reporting experience, taking the exam, or both. With exam availability no longer impacted by COVID-19 safety precautions, the number of candidates completing the path to licensure also began to rise toward normal levels. Over 3,500 candidates finished the licensure process in 2021, just under 11% of the total candidate pool.

And at 13 years, the average time to earn a license is the same as it was five years ago.



121,603ARCHITECTS IN THE U.S.



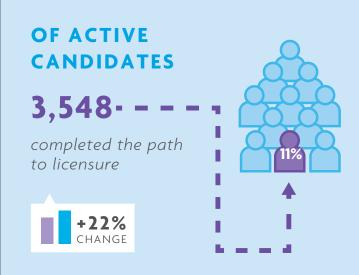
32,622

candidates actively working toward licensure



136,614
RECIPROCAL LICENSES

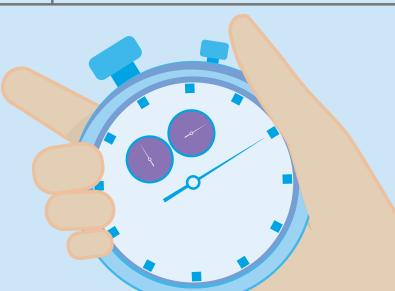






12.6 YEARS

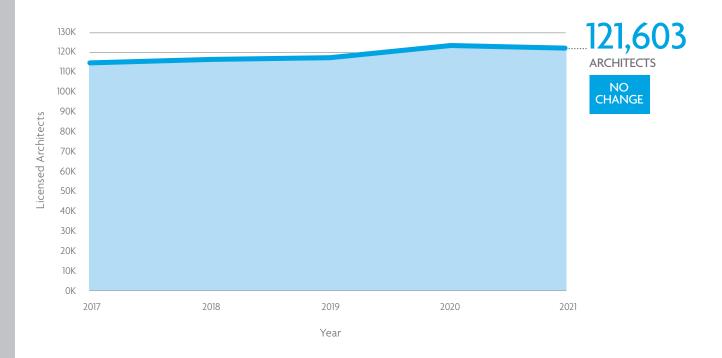
Time to complete the path to licensure



Number of U.S. Architects Held Steady

The number of architects licensed in the United States held steady in 2021 at 121,603—about 300 fewer than the number seen in 2020, according to data from NCARB's annual Survey of Architectural Registration Boards.

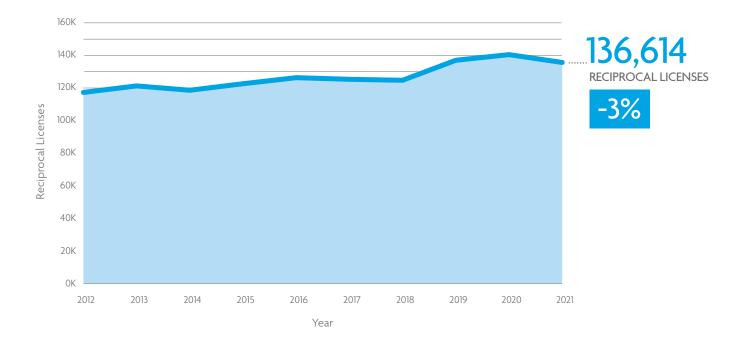
The number of architects has been steadily rising over the past five years. The slight reduction that was seen in 2021 is likely due to the COVID-19 pandemic, as the historically low number of new architects seen in 2020 and 2021 may not have been sufficient to offset the number of existing architects retiring from the profession.



Number of Reciprocal Licenses Fell

In addition, the Survey of Architectural Registration Boards indicated that the number of reciprocal licenses held by U.S. architects fell by 3% in 2021. This is still higher than the number of architects in the United States, suggesting that the average architect is licensed in more than one jurisdiction.

Regulators and legislators frequently use data related to reciprocal licenses as an indicator of mobility in licensed professions. Despite 2021's slight downward trend, the number of reciprocal licenses and the fact that the average state issues more reciprocal than resident licenses indicate that the current path to mobility in the architecture profession remains effective and accessible.

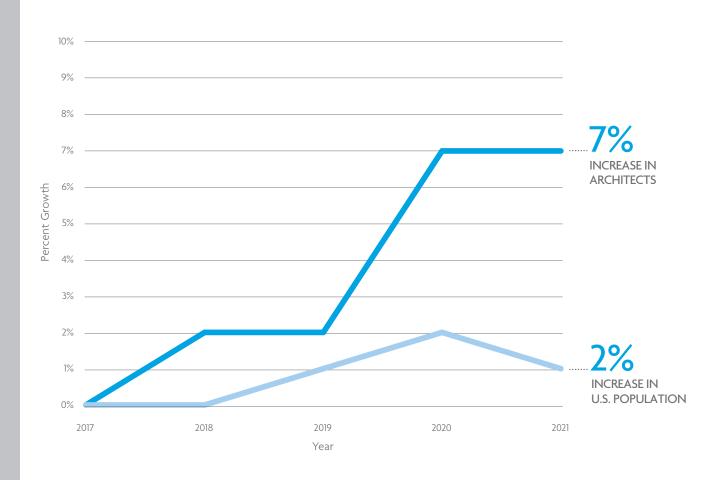


There Are More Architects Per Capita Than in 2017

While the number of architects licensed in the United States has risen 7% in the last five years, the total U.S. population has risen just 2%, according to data from the U.S. Census Bureau.

This means that there are now slightly more architects per capita (roughly 1 architect to every 2,730 people) than there were in 2017 (roughly 1 architect to every 2,860 people).

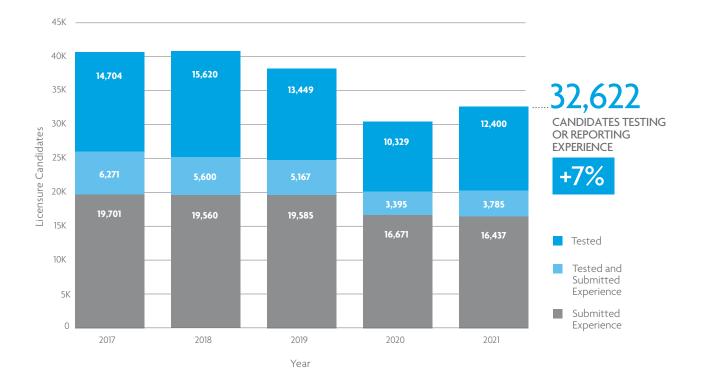
Note: Many architects maintain their professional licenses into retirement, which could also impact this data.



Number of Licensure Candidates on the Rise

Following the pandemic-related drop in active licensure candidates seen in 2020, the number of candidates working toward licensure rose by 7% in 2021.

In 2021, over 32,000 candidates made progress on the path to licensure. This included 16,437 reporting experience, 12,400 taking the exam, and 3,785 both reporting experience and taking the exam. The proportion of candidates making both AXP and ARE progress in 2021 rose from 11% to 12% in 2021, this remains smaller than the proportion seen in 2017 (15%).

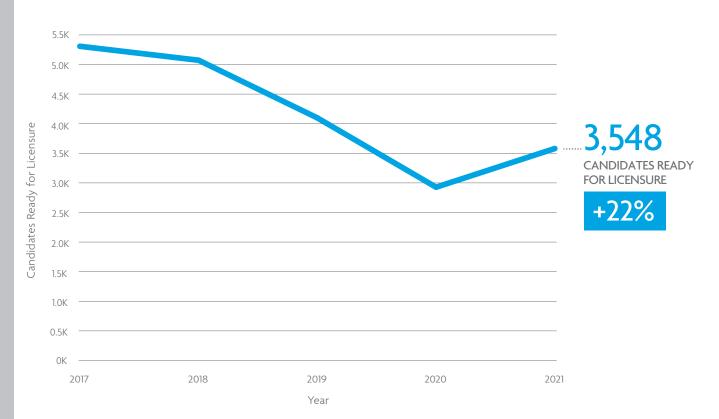


Number of Candidates Ready for Licensure Begins Recovery

In 2021, just over 3,500 candidates finished the path to licensure, a 22% increase compared to 2020. The path to licensure includes earning a degree from an accredited architecture program, and the national experience and examination programs. Completing these key requirements for licensure is a reliable indicator that an individual has become (or will soon become) licensed in a U.S. jurisdiction.

Following record high numbers of candidates completing the licensure path in 2016 and 2017 due to programmatic changes, the number of licensure candidates dipped dramatically in 2020—a result of the pandemic's impact on candidates' AXP and ARE progress. 2021 data suggests a recovery toward normal levels, although the continued decline in AXP completions may result in future declines in the number of candidates ready for licensure.

Note: Some jurisdictions have additional licensure requirements, such as a supplemental exam.

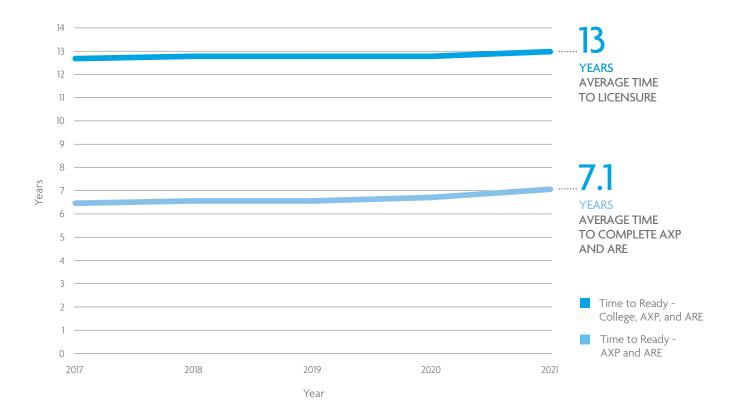


Time to Licensure Holds Steady

From beginning their first college degree to finishing their final licensure requirement, the average candidate who completed the path to licensure took 13 years to do so—the same length of time seen in 2017.

On average, 7.1 of those years were spent completing NCARB's experience and examination programs.

Note: Historical data can shift because licensure candidates can backdate experience up to five years.



Education

Earning a degree from an architecture program accredited by the National Architectural Accrediting Board (NAAB) is the most common path for candidates seeking architectural licensure in the United States. Data continues to show that, on average, licensure candidates with a degree from a NAAB-accredited program have greater success when taking the national licensing exam—although they also take longer to complete both the exam and the experience program.

Interest in the Integrated Path to Architectural Licensure (IPAL) continues, with over 600 students enrolled in IPAL options across the country during the 2020-2021 school year. Additionally, just over half of newly licensed architects started their NCARB Record while in school, suggesting that NCARB's continued efforts to raise early awareness of the licensure process are helping students make early progress on their path.



GRADUATES FROM NAAB-ACCREDITED PROGRAMS:



ACHIEVED 5% HIGHER EXAM PASS RATES



FINISHED AXP & ARE **6 MONTHS LATER**

2,000 **NEW STUDENTS**



20,000 STUDENTS ENROLLED





2,000 GRADUATES

28 IPAL 600+ STUDENTS enrolled at

24 schools





82%

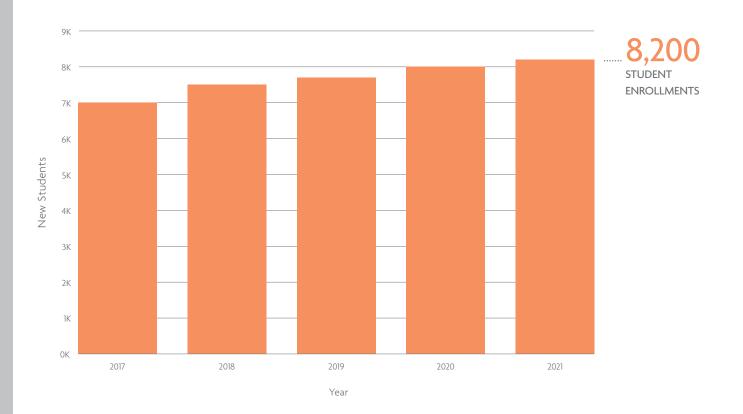
OF NEW ARCHITECTS GRADUATED FROM AN **ACCREDITED PROGRAM**

New Enrollment in NAAB-Accredited Programs Increases

NAAB data shows that over 8,200 new students enrolled in a NAAB-accredited program in the 2020-2021 school year—a 3% increase from the previous school year. Of the new students, 47% are enrolled in Master of Architecture programs, and 52% are enrolled in Bachelor of Architecture programs. Less than 1 percent are enrolled in Doctor of Architecture programs.

Just over half of new students are women (51%), which is 3 percentage points higher than the proportion of female candidates reporting experience. This suggests that NCARB may see greater gender representation on the licensure path in the years to come.

Note: This data is provided to the NAAB by accredited programs and will be published in the 2021 NAAB Report on Accreditation in Architecture, available atwww.naab.org. Students enrolled in non-accredited architecture programs are not represented.

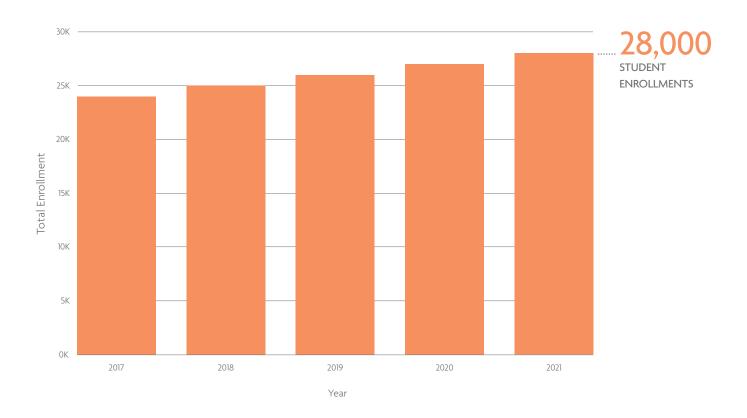


Total Enrollment in NAAB-Accredited Programs Grows

Nearly 28,000 students were enrolled in a NAAB-accredited program in the 2020-2021 school year, an increase of 3% compared to the previous academic year. This is the fourth consecutive year of steady increases.

Of these students, 62% are enrolled in Bachelor of Architecture programs, 38% in Master of Architecture programs, and less than 1 percent in Doctor of Architecture programs. Forty-nine percent are men, and 51% are women.

Note: This data is provided to the NAAB by accredited programs and will be published in the 2021 NAAB Report on Accreditation in Architecture, available at www.naab.org. Students enrolled in non-accredited architecture programs are not represented.

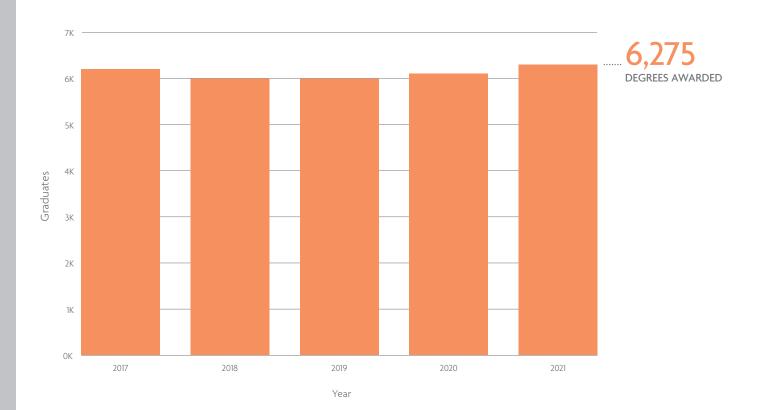


Number of Graduates From NAAB-Accredited Programs Increases

In 2021, 6,275 degrees were awarded by NAAB-accredited programs across the country, a 3% increase compared to the previous school year. This is above the average number of graduates seen over the five years (6,102).

Of these graduates, 49% were men and 51% were women—a 1 percentage point increase for women compared to 2020.

Note: This data is provided to the NAAB by accredited programs and will be published in the 2021 NAAB Report on Accreditation in Architecture, available at www.naab.org. Students enrolled in non-accredited architecture programs are not represented.

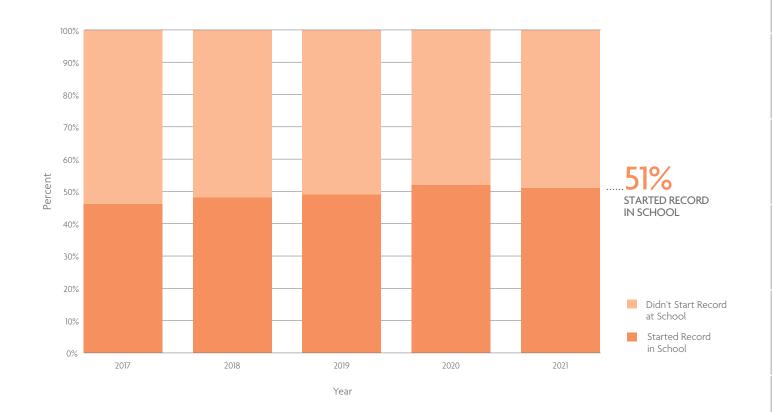


Half of New Architects Started NCARB Record in School

Just over half (51%) of architects who became licensed in 2021 started their NCARB Record while in school—a 1 percentage point decrease compared to 2020.

Creating an NCARB Record is one of the first steps to licensure, and NCARB's data shows that, on average, the sooner a candidate starts their NCARB Record, the sooner they will become licensed. NCARB encourages candidates to start their Record once they begin earning experience that counts toward the experience program.

Note: Historical data can shift because licensure candidates can backdate AXP experience up to five years.

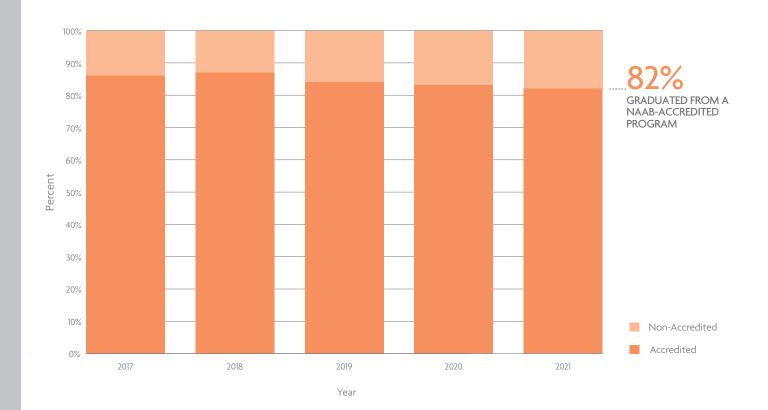


New Architects Without NAAB-Accredited Degrees on the Rise

In 2021, approximately one in five (18%) newly licensed architects did not hold a degree from an architecture program accredited by the NAAB—a 1 percentage point increase compared to 2020. The proportion of new architects without a degree from a NAAB-accredited program has steadily risen over the past five years.

Out of the 55 U.S. jurisdictions, only 17 will license individuals who don't hold a degree from a NAAB-accredited program (typically by substituting additional experience in lieu of a professional degree).

Due to the rising costs of higher education and the disproportionate impact those costs can have on underrepresented groups in the profession, NCARB and its member licensing boards are exploring opportunities to introduce a more accessible—but still rigorous—education option into the licensure process.

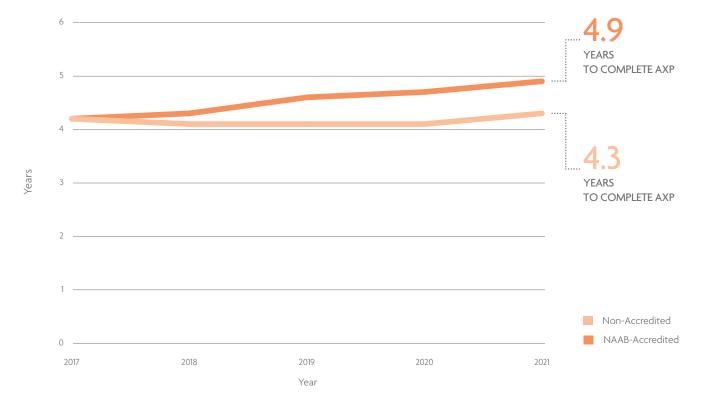


Graduates of Non-Accredited Programs Complete Experience Sooner

In 2021, graduates of NAAB-accredited architecture programs took an average of 4.9 years to complete the AXP. Graduates of non-accredited programs completed the ARE in 4.3 years—an average of 7 months sooner.

Most individuals completing the AXP hold a degree from a NAAB-accredited program. The thickness of the lines indicates the number of individuals in the group. Because more candidates completed the AXP in 2017 than in 2021, the line for graduates of NAAB-accredited programs is thicker near that year.

The average time to complete the AXP in 2020-21 for both groups is likely an ongoing result of the COVID-19 pandemic.

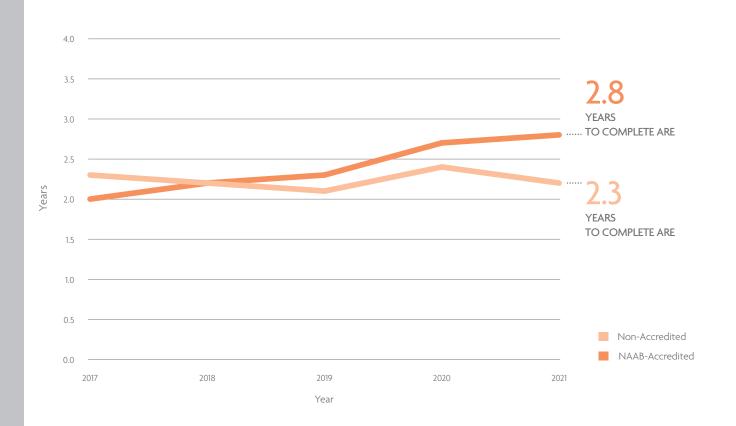


Graduates of Non-Accredited Programs Complete ARE Sooner

In addition to completing the AXP in less time, graduates of non-accredited programs typically complete the ARE seven months sooner than graduates of NAAB-accredited programs.

In 2021, graduates of non-accredited programs who completed the exam took an average of 2.2 years, a slight decrease compared to 2020. Meanwhile, graduates of NAAB-accredited programs took an average of 2.8 years, a slight *increase* compared to 2020.

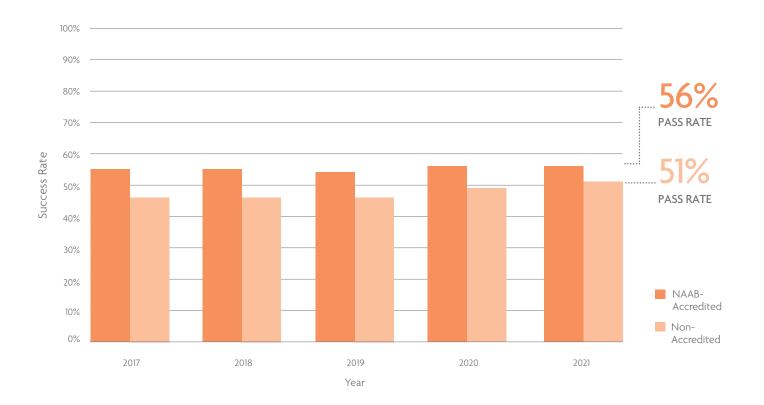
As with the previous chart, the thickness of each line indicates the relative size of the group it represents. Because most individuals completing the ARE have graduated from a NAAB-accredited program, the line is thicker for that group.



Graduates of NAAB-Accredited Programs Have Higher ARE Pass Rates

Although graduates of NAAB-accredited programs take longer on average to complete the exam, they also see higher average pass rates. In 2021, graduates of NAAB-accredited programs had an overall exam pass rate of 56%, compared to 51% for graduates of non-accredited programs. This suggests that graduates of NAAB accredited programs pass the exam in fewer attempts, but space their attempts further apart.

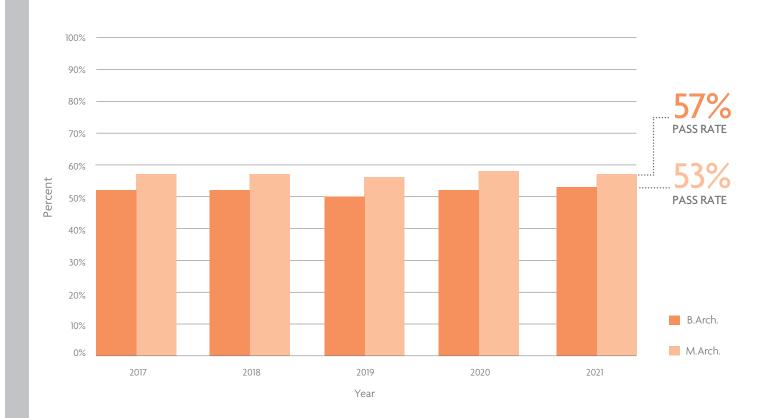
All candidates' average overall ARE pass rate in 2021 was 55%.



Graduates of M.Arch. Programs Have Higher ARE Pass Rates

In 2021, graduates of NAAB-accredited Master of Architecture (M.Arch.) programs saw an average ARE pass rate of 57%. This is 4 percentage points higher than the average pass rate for graduates of NAAB-accredited Bachelor of Architecture (B.Arch.) programs.

The pass rates for both M.Arch. and B.Arch. graduates are higher than the average pass rate for graduates of non-accredited programs (51%).



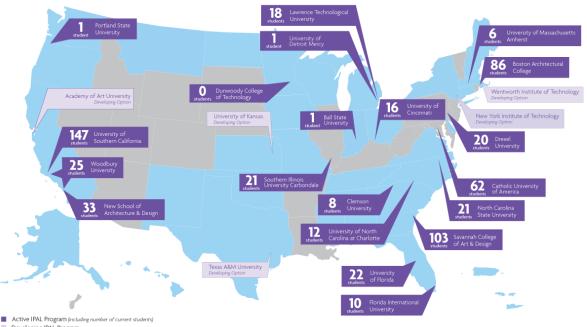
IPAL Initiative Continues to Grow

In 2021, 28 NAAB-accredited programs at 24 colleges participated in NCARB's Integrated Path to Architectural Licensure (IPAL) initiative, which launched in 2015.

The IPAL option—offered as an additional path within an existing NAAB-accredited program—seeks to shorten the time it takes to become an architect for students dedicated to earning a license. Participating programs allow students to complete the AXP and take all six ARE 5.0 divisions prior to graduation.

During the 2020-2021 school year, over 600 students were enrolled in IPAL options across the United States. Currently, 34 boards will accept licensure applications from candidates who have completed the ARE prior to graduation through an IPAL program.

Note: Enrollment data is from the 2020-2021 school year. Some accepted programs are still developing their IPAL options.



- Developing IPAL Program
- Board Accepts ARE Passed Prior to Graduation
- Board Does Not Accept ARE Passed Prior to Graduation

Experience

Designed to guide candidates through earning and reporting the experience needed to practice architecture competently, NCARB's Architectural Experience Program® (AXP®) is a required component of the licensure process in almost all U.S. jurisdictions.

2021 data suggests that the COVID-19 pandemic continues to impact candidates' AXP progress. The number of candidates starting the program increased compared to 2020's dip, but the number of candidates completing the program saw a further decline.

Even candidates completing the program showed evidence of the pandemic's impact, as the average length of time for competition neared five years.



3,277
CANDIDATES
STARTED THE AXP



4,218 CANDIDATES



COMPLETED THE AXP

25 YEARS
AVERAGE AGE
candidates start the AXP



4.7 YEARS

AVERAGE TIME

taken to complete the AXP

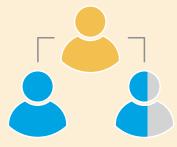


13%
OF SUPERVISORS
ARE PEOPLE OF COLOR



1.6
average number of

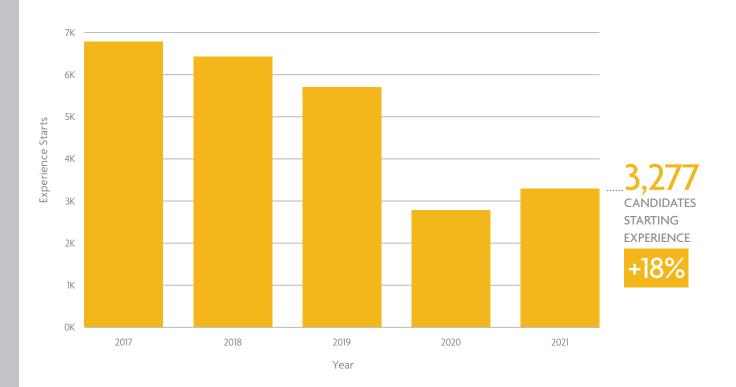
CANDIDATES PER AXP SUPERVISOR



Number of Candidates Starting Experience Program Increases Slightly

Nearly 3,300 candidates started the experience program in 2021. The number of candidates beginning the AXP, which is often one of the first steps on the path to earning a license, fell dramatically in 2020 as a result of the COVID-19 pandemic.

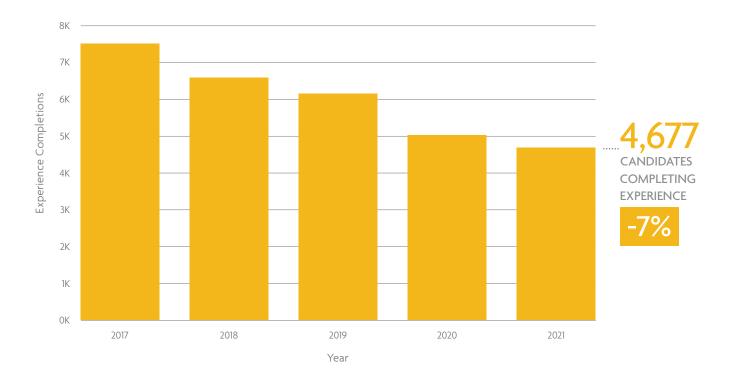
The growth in 2021 signals a partial recovery from the pandemic's impact, but the number of candidates starting the program remains significantly fewer than seen in the years leading up to the pandemic.



Experience Completions Continue to Fall

The number of candidates completing the experience program continued to fall in 2021—the fifth consecutive year.

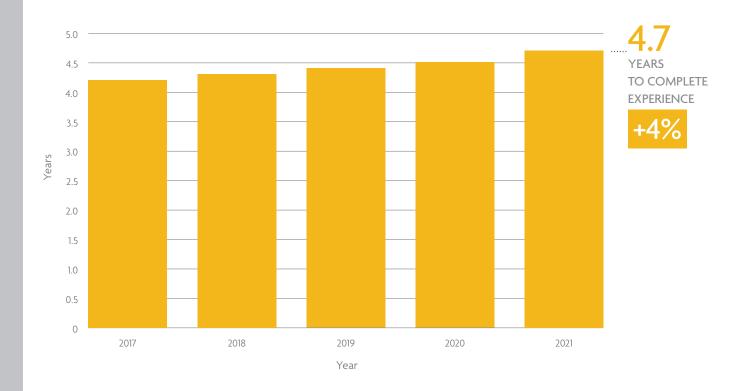
Two factors are influencing this downward trend. First, the launch of the AXP accelerated many candidates' AXP progress in 2016-2017, creating a peak in the number of completions. Additionally, while AXP completions were on the decline prior to 2020, the drop seen in 2020 and the continued decrease in 2021 were likely a result of the COVID-19 pandemic, as demand for architecture services continued to fluctuate.



Time to Complete Experience Increases Slightly

The average candidate who finished the experience program in 2021 took 4.7 years to do so—an increase of approximately two months compared to 2020. Time to complete the AXP has been rising since the program launched: 2021 candidates took six months longer on average compared to candidates who finished the program in 2017.

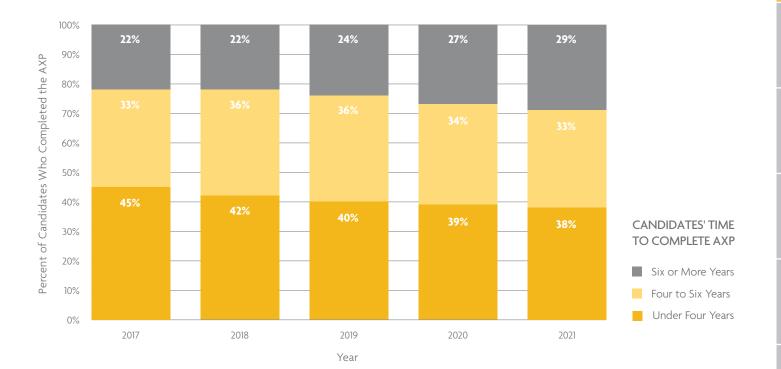
2021's increase is likely a result of the COVID-19 pandemic, which saw many candidates temporarily stop submitting experience reports as they navigated the pandemic's impact on their personal and professional lives.



Fewer Candidates Complete Experience in Less Than Four Years

Over the past five years, the proportion of candidates who complete the AXP in less than four years has steadily declined. Of candidates who completed the AXP in 2021, 38% did so in less than four years—a 7 percentage point drop compared to the proportion seen in 2017.

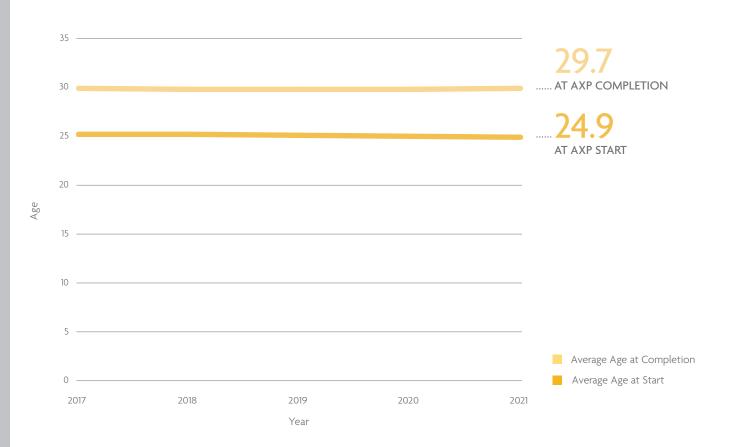
Of the remaining candidates, a third (33%) finished the AXP in four to six years, and 29% took six years or more. The average time to complete the program in 2021 was 4.8 years.



Age at Experience Start and Finish Remains the Same

The average candidate who started the AXP in 2021 was 24.9 years old, and the average candidate who finished the AXP in 2021 was 29.9 years old. Both ages changed by roughly one month compared to the ages at AXP start and finish seen in 2020.

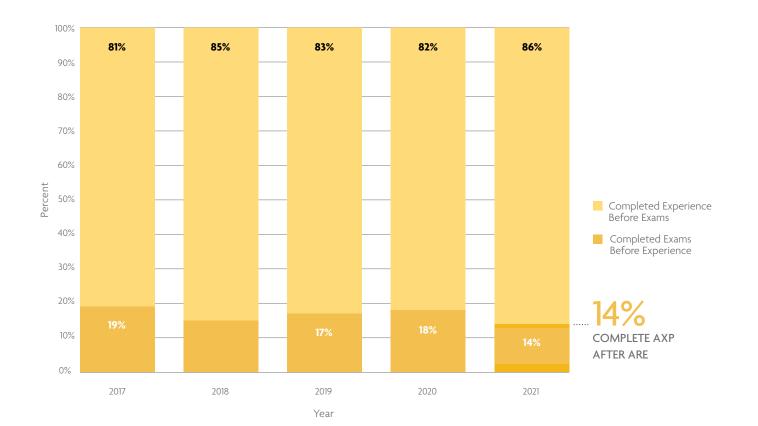
Over the past five years, the age at AXP start has dropped slightly (by approximately 4 months) while the age at AXP finish has remained the same.



Fewer Candidates Complete Exam Before Experience Requirement

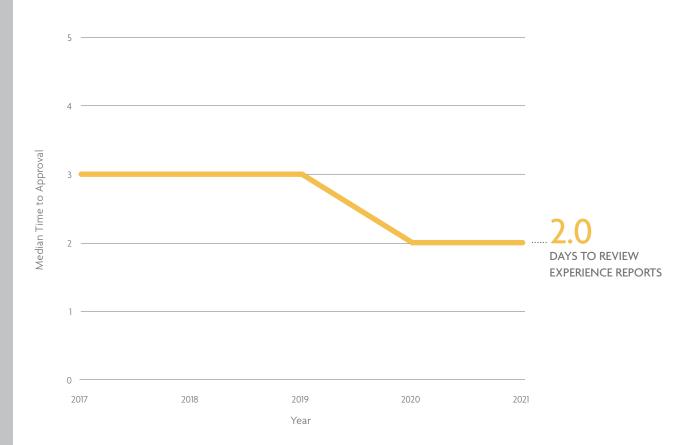
Of the candidates who completed the path to licensure in 2021, 14% finished the exam before they completed their experience requirement—a four percentage point drop compared to 2020.

The gradual downward trend of candidates taking the exam prior to completing the AXP practice area is likely linked to the 2016 alignment of the AXP and ARE. The majority of candidates are choosing to complete an experience area within the AXP before attempting the related exam division.



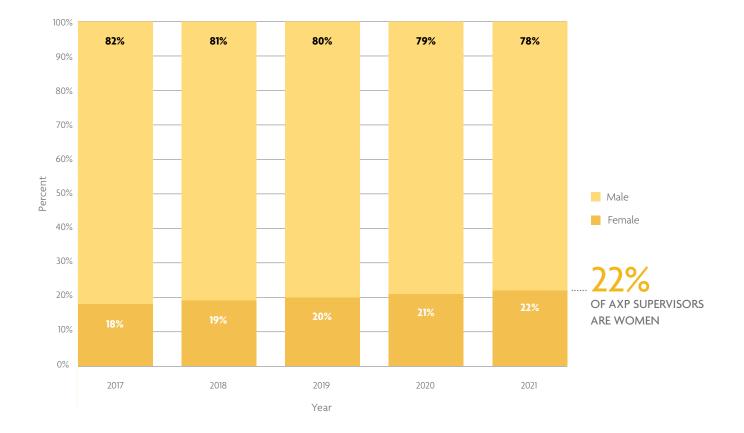
Most Supervisors Review Experience Reports Within Two Days

On average, most experience reports submitted in 2021 were reviewed and approved by a supervisor within just two days of the report's submission, the same time frame seen in 2020.



Slight Increase in Female AXP Supervisors

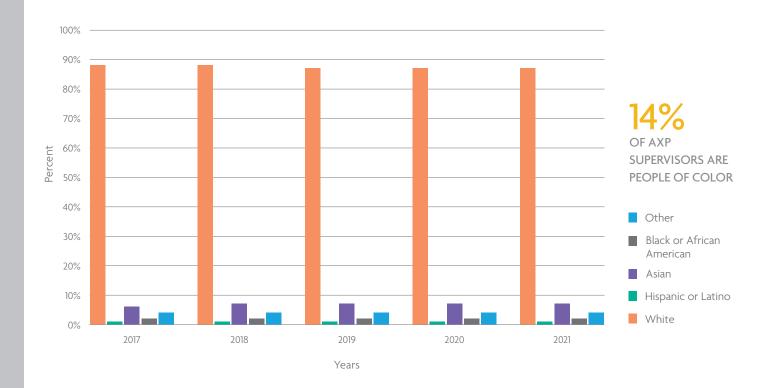
Of active AXP supervisors in 2021, 22% were women—a 1 percentage point increase compared to 2020, and a 4 percentage point increase seen over the past five years. For comparison, women make up approximately 25% of the licensed architect population, based on NCARB's Certificate holder data. This indicates that men are more likely to be AXP supervisors than their female peers.



Most AXP Supervisors Are White

87% of AXP supervisors are white. Fourteen percent identify as a person of color: 1% are Hispanic or Latino, 7% are Asian, 2% are Black or African American, and 4% are a member of another group, such as Native American or Pacific Islander.

For comparison, approximately 83% of the licensed architect population is white, based on NCARB's Certificate holder data. This indicates that white architects are more likely to be AXP supervisors than their peers of other racial and ethnic groups.



Examination

Required by all 55 U.S. jurisdictions, the Architect Registration Examination® (ARE®) 5.0 is a six-part exam taken by candidates seeking architectural licensure

In 2021, the exam candidate pool began to recover from the impact of the COVID-19 pandemic. With 16,185 candidates taking nearly 41,000 exam divisions throughout the year, the ARE saw a return to near-normal levels of exam completions. Just over 3,400 candidates completed the ARE in 2021.

Additionally, 2021 pass rates revealed the impact of several important changes to the exam that were launched in December 2020: a reduction in the number of questions per division that allowed candidates more time per question, along with other formatting changes. As a result, the overall ARE 5.0 pass rate across all six divisions rose to a new high of 55%.

However, not all demographics saw an improvement in pass rates in 2021. While pass rates for Asian and Latino candidates rose in 2021, white men continue to have the highest pass rates compared to other demographic groups. NCARB is exploring a variety of factors that could be impacting ARE pass rates, such as AXP progress, exam question types, and more.



16,185

CANDIDATES
TESTED IN 2021



3,418

CANDIDATES
COMPLETED THE ARE



29 YEARS
AVERAGE AGE

candidates start testing



2.7 YEARS



between starting and finishing the exam



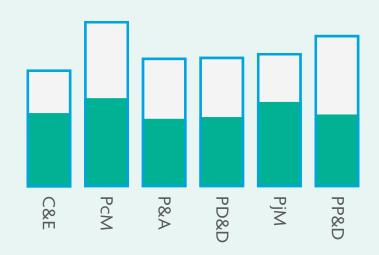
+39% CHANGE 40,944

DIVISIONS
TAKEN IN 2021



55% 🦃

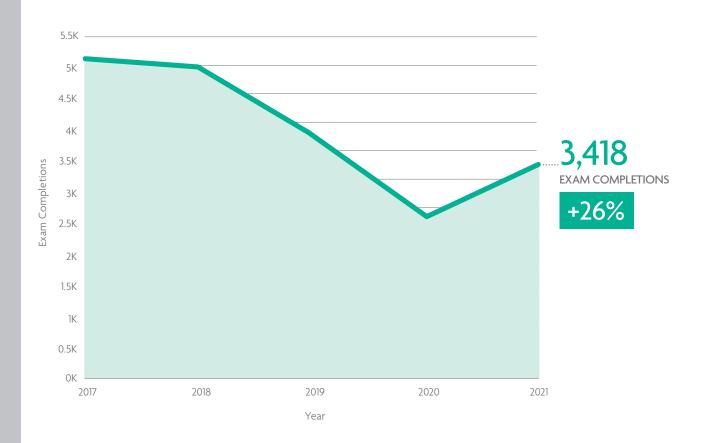
AVERAGE PASS RATE ACROSS DIVISIONS



Number of Exam Completions Recovering

The number of candidates completing the national licensing exam rose from 2,703 in 2020 to 3,418 in 2021. This 26% increase brought the number of ARE completions much closer to prepandemic levels (nearly 4,000 candidates completed the exam in 2019).

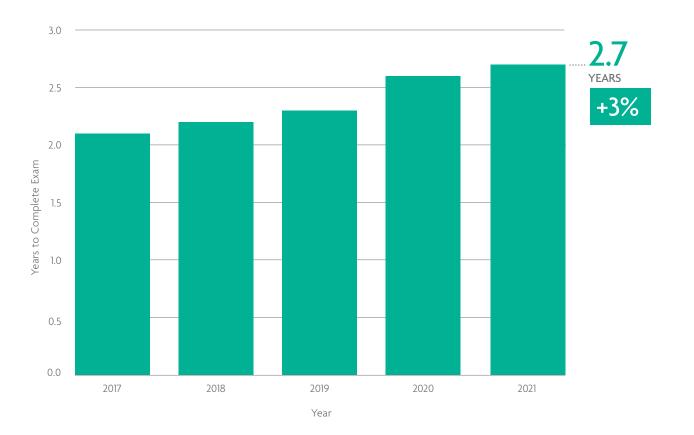
The dip in exam completions seen in 2020 was a result of test center closures during the early months of the COVID-19 pandemic, as well as limited testing availability throughout the remainder of the year. With the launch of online proctoring in December 2020 and increased availability of in-person testing, candidates were able to make near-normal levels of ARE progress in 2021.



Time to Complete Exam Increases Slightly

The average candidate who completed the ARE in 2021 took 2.7 years—approximately one month longer compared to 2020. This slight increase is likely a result of 2020's test center closures and the ongoing impact of the COVID-19 pandemic, which led many candidates to delay their testing plans.

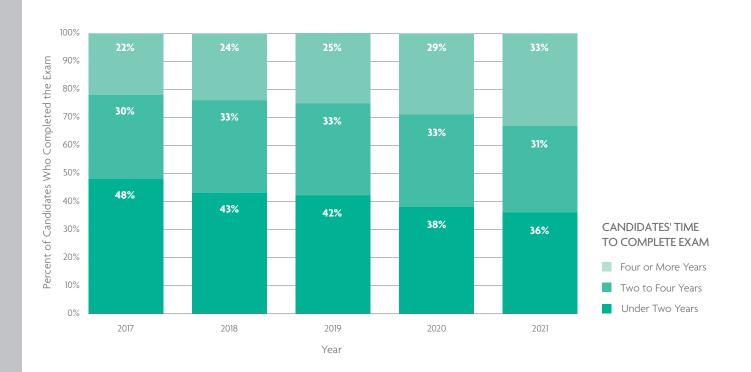
It is likely that the pandemic will continue to be reflected in program completion time over the next several years, as candidates continue to recover from both direct and indirect impacts on their licensure journeys.



One in Three Candidates Completes the Exam in Two Years or Less

Just over a third (36%) of ARE candidates who finished the exam in 2021 did so in two years or less. The proportion of candidates who complete the exam in under two years has been steadily declining since 2017, when nearly half (48%) were able to complete the exam in two years or less.

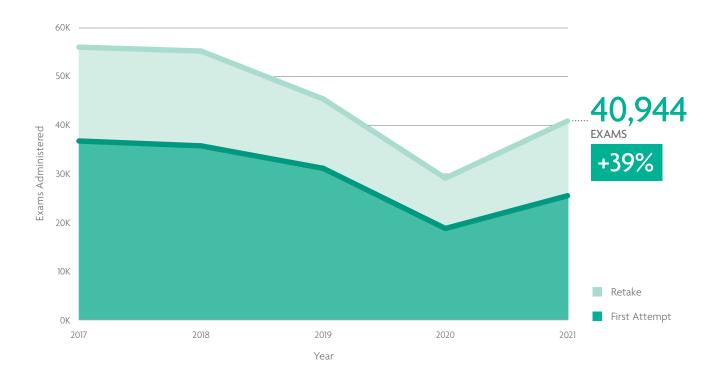
The higher historical proportion of candidates completing the exam in a shorter time frame was likely due to the transition from ARE 4.0 to 5.0. The transition prompted many candidates to speed up their testing time frame and enabled them to complete the exam in as few as five divisions through strategic testing.



Number of Exams Administered on the Rise

The number of exams administered rose from 29,390 in 2020 to 40,944 in 2021—an increase of 39%. This is just 4,600 fewer exams than the pre-pandemic number seen in 2019.

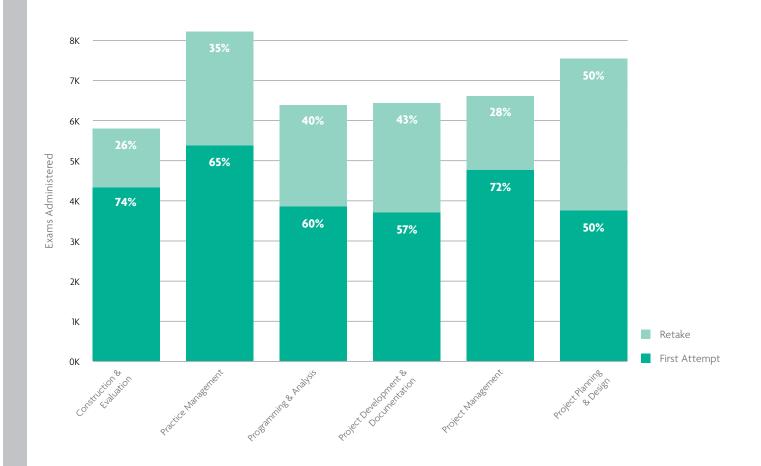
Of the exams administered in 2021, just over a third (15,230) were retakes, and the remaining 25,714 were first attempts. A similar ratio of first attempts to retakes has been seen throughout ARE 5.0's history.



Practice Management Has Highest Number of Exams Administered

Of the nearly 41,000 exams taken in 2021, over 8,000 of them (20%) were for the Practice Management division, including 5,370 first attempts and 2,835 retakes. Meanwhile, Project Planning & Design saw the largest proportion of retakes—less than half of the PPD divisions administered in 2021 were first attempts.

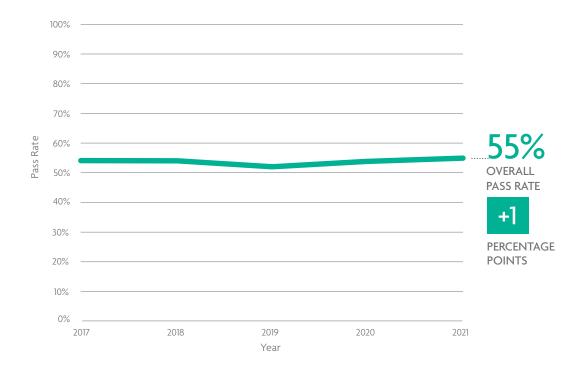
Construction & Evaluation and Project Management saw the lowest proportion of retakes—a reflection of the higher initial pass rates seen for these divisions.



ARE 5.0 Pass Rates Increase Slightly to Record High

The average pass rate across all ARE 5.0 divisions rose slightly to 55% in 2021—the highest overall pass rate seen since ARE 5.0 launched in November 2016.

This improvement was likely driven by changes to the exam format that launched in mid-December 2020, providing candidates with more time per question.

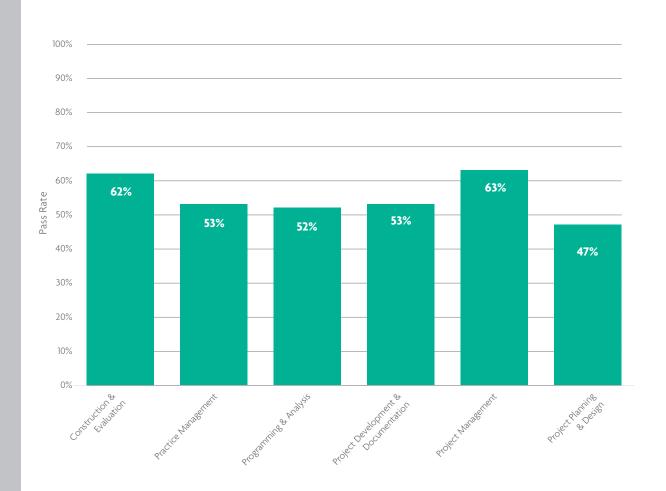


Project Management Has Highest Pass Rate

For the first time since ARE 5.0's launch in 2016, Construction & Evaluation (CE) did not have the highest pass rate in 2021. Out of the exam's six divisions, Project Management (PjM) had the highest pass rate at 63% (no change compared to 2020).

Project Planning & Design (PPD) continued to have the lowest pass rate at 47%—however, the division did see an increase of 2% compared to its pass rate in 2020.

Programming & Analysis (PA) and Practice Management (PcM) also saw a 2% increase in pass rates in 2021, while CE and Project Development & Documentation (PDD) fell by 4%.



White Men Have Highest Divisional Pass Rates

This table shows pass rates by race, ethnicity, and gender. For an interactive version of this chart, as well as an exploration of how pass rates by demographic rose or fell during 2021, visit www.ncarb.org/nbtn2022.

White men had the highest pass rate on every ARE 5.0 division in 2021, often by significant margins compared to their peers of other races, ethnicities, and genders (with one exception: white men and women were equally as likely to pass Practice Management). The average pass rate of white men on each ARE division exceeded the national average by a range of 6-16 percentage points, depending on the division.

For the most part, women achieved lower pass rates compared to men of the same race or ethnicity although not across all divisions. When viewed solely by gender, male candidates outperformed female candidates on all ARE divisions except Practice Management, where men and women saw equal pass rates.

On average, Black or African American women saw pass rates 19-44 percentage points lower than their white male peers—the largest gap between demographic groups. The smallest difference in pass rates was on the Practice Management division; the largest difference was on the Programming & Analysis division.

NCARB is working to better understand the source of demographic disparities on the ARE. NCARB is exploring how factors such as question type, content area, language, readability, and overall progress along the path to licensure may impact candidate performance.

White

Hispanic

	Mer
Construction & Evaluation	52%
Practice Management	49%
Programming & Analysis	43%
Project Development & Documentation	53%
Project Manangement	55%
Project Planning & Design	45%

Asian

Men of

Black or

Men	Another Group	African Men	or Latino Men	Men	Women	Another Group	African Women	or Latino Women	Women
52%	54%	35%	51%	73%	49%	48%	39%	45%	67%
49%	40%	30%	39%	59%	52%	40%	40%	38%	59%
43%	44%	26%	39%	66%	42%	35%	22%	38%	59%
53%	49%	26%	42%	69%	43%	41%	27%	33%	50%
55%	53%	43%	56%	71%	60%	47%	42%	45%	67%
45%	44%	20%	36%	59%	39%	34%	20%	30%	46%

Asian

Women of

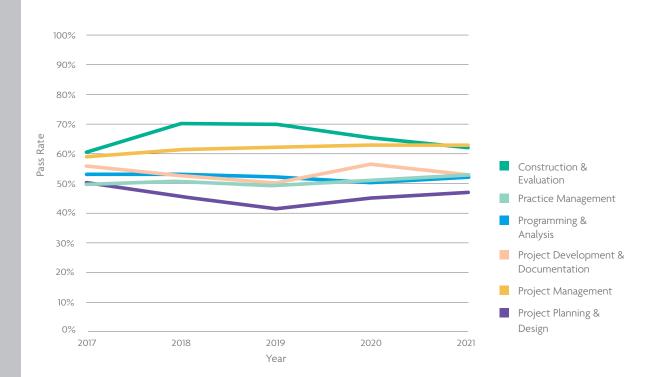
Black or

Hispanic

White

Candidates Perform More Consistently Across Divisions

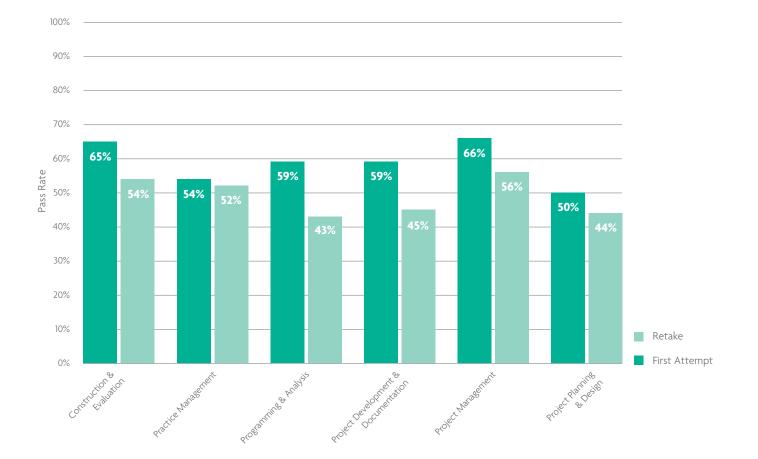
A big-picture review of divisional pass rates over time shows that candidate performance across all six divisions continued moving toward a more consistent pass rate. The spread between the division with the highest pass rate (PjM) and the division with the lowest pass rate (PPD) was 16 percentage points in 2021, compared to the 28 percentage point spread seen in 2019.



Exam Pass Rates Higher on First Attempts

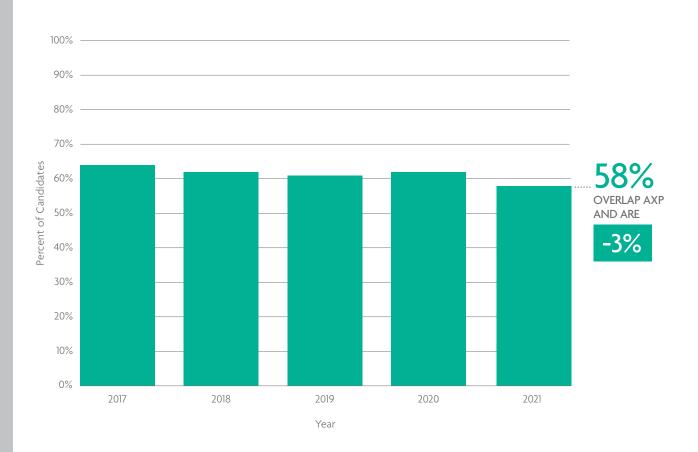
For each ARE 5.0 division, pass rates for first attempts were higher than pass rates for all subsequent retakes on that same division. Programming & Analysis had the largest gap between first attempts (59%) and retakes (43%)—a 16 percentage point difference.

Practice Management had the smallest gap between first attempts (54%) and retakes (52%)—a 2 percentage point difference.



Steady Decline Seen in Proportion of Candidates' Overlapping Experience and Examination

Of the candidates who completed the ARE in 2021, 58% took at least one division prior to completing the experience program—3 percentage points fewer than in 2020. The proportion of candidates overlapping the AXP and ARE has been steadily declining since ARE 5.0's launch in 2016, which aligned the AXP's practice areas with the exam's divisions.



Candidates Close to Completing an Experience Area See Highest Pass Rates

The six experience areas of the AXP align with the six divisions of ARE 5.0. On average, candidates who completed 75-99% of a given experience area before taking the related exam division saw the highest pass rates.

For example, candidates who completed 75-99% of the Project Management experience area before taking the PjM exam saw a pass rate of 74%. However, candidates who hadn't yet started the PjM experience area before taking the PjM exam saw a pass rate of 54%.

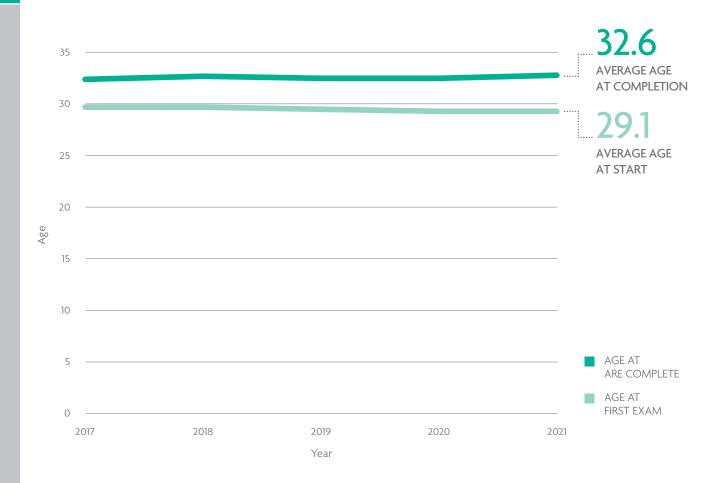
Note: The majority of candidates complete some or all of an experience area before testing.

	AXP Not Started	Less than 25% Complete	25% - 49% Complete	50% - 74% Complete	75% - 99% Complete	AXP Complete
Construction & Evaluation	58%	65%	61%	65%	65%	62%
Practice Management	43%	55%	55%	64%	66%	53%
Programming & Analysis	41%	52%	57%	63%	66%	53%
Project Development & Documentation	40%	60%	49%	59%	69%	54%
Project Manangement	54%	66%	66%	69%	74%	63%
Project Planning & Design	35%	43%	47%	53%	62%	48%

Average Age at ARE Completion Increases Slightly

The average candidate who completed the ARE in 2021 was 32.6 years old—approximately four months older than the average candidate completing the exam in 2020.

The average age of candidates who began the ARE in 2021 remained the same as in 2020: 29 years old.



Demographics

This year, NCARB has adjusted the way we present data around racial and ethnic diversity to reflect the fact that individuals can identify as more than one race or ethnicity. For this reason, some percentages in this section may add to over 100%.

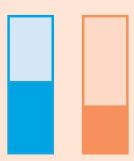
Racial and ethnic diversity continues to increase in early career stages, especially for Asian and Hispanic or Latino candidates. Despite this, white candidates (and Asian candidates, to a lesser degree) continued to be overrepresented in the pool of individuals completing the AXP and ARE in 2021, compared to the overall population of candidates working toward completing those programs.

While the population of new Asian and Hispanic or Latino architects—especially Asian women—rose in 2021, the proportion of new architects who identify as Black or African American has remained relatively stable over the past five years. Black or African American women continue to make up less than 1% of the total architect population in the United States.

PEOPLE OF COLOR MAKE UP:

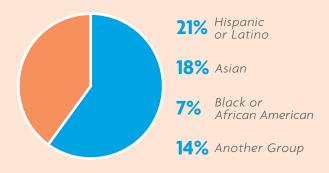
52% 34%

of candidates taking the exam of candidates completing the exam



60% OF NEW RECORD

HOLDERS IDENTIFY AS PEOPLE OF COLOR



Women are ready for licensure

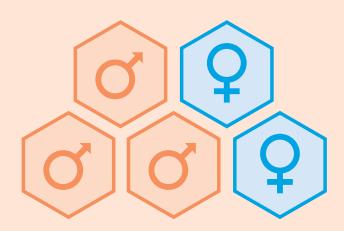
6 MONTHS SOONER than men

Asian candidates ready for licensure soonest at

12.7 YEARS

African American candidates ready for licensure latest at

13.8 YEARS



2 IN 5



NEW ARCHITECTS ARE WOMEN

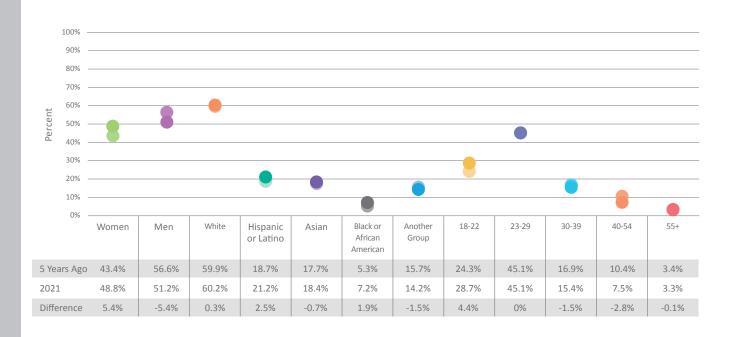
Two in Five New Record Holders Were People of Color, Nearly Half Were Women

NCARB considers starting a Record to be one of the first steps on the path to licensure, since candidates need an NCARB Record to verify their education, document experience, and take the national licensing exam.

In 2021, 60% of new NCARB Record holders identified as a race or ethnicity other than "white, non-Hispanic or Latino," roughly 2 percentage points higher than the proportion seen five years ago.

Of new Record holders, 21% identified as Hispanic or Latino, 18% identified as Asian, and 7% identified as Black or African American. Additionally, nearly half (49%) of new Record holders were women, a 5.4% increase compared to 2017.

In 2021, most new Record holders were in the 23-29 age group, although overall, candidates are starting the path to licensure younger than ever. The 18-22 age group grew by 4% compared to 2017, now comprising nearly 30% of all new Record holders.



White and Latina Women Starting an NCARB Record on the Rise

Since 2017, the proportion of women opening an NCARB Record has risen across every race and ethnicity, with white and Latina women seeing the largest increase.

In 2021, white women made up 28% of new Record holders, and Hispanic or Latina women made up nearly 11%—an increase of 3 and 2 percentage points, respectively. Asian, Black or African American, and women of another racial and ethnic group have seen smaller increases.

Meanwhile, the proportion of white men, Hispanic or Latino men, and men of another group have all decreased over the past five years.

Asians are the only race or ethnicity where women are more represented than men. Asian women make up 10% of all new Record holders, while Asian men make up less than 8%.



White

Hispanic or Latino

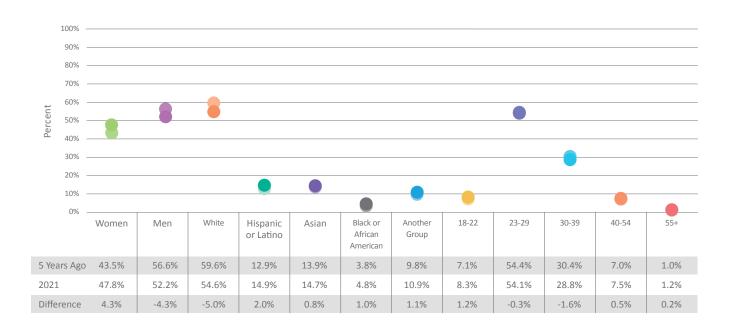
Asian

Black or African American Another Group

Diversity Increased Among Candidates Reporting Experience

The racial and ethnic diversity seen in the pool of candidates reporting AXP experience has increased by 5 percentage points since 2017, with white candidates making up 55% of all individuals reporting experience in 2021 compared to 60% in 2017. Hispanic or Latino candidates have seen the most growth—they now make up 15% of candidates completing the AXP, a 2 percentage point increase.

Similarly, gender representation in the pool of candidates navigating the experience program has also increased in the past five years, with women now making up 48% of candidates reporting experience.



Larger Proportion of Latinas Reported Experience in 2021

The proportion of Hispanic or Latina women reporting experience rose to 7.1% in 2021, a 1.6% increase in the past five years. This is the largest increase in representation seen for any single group among the pool of candidates working toward completing the AXP.

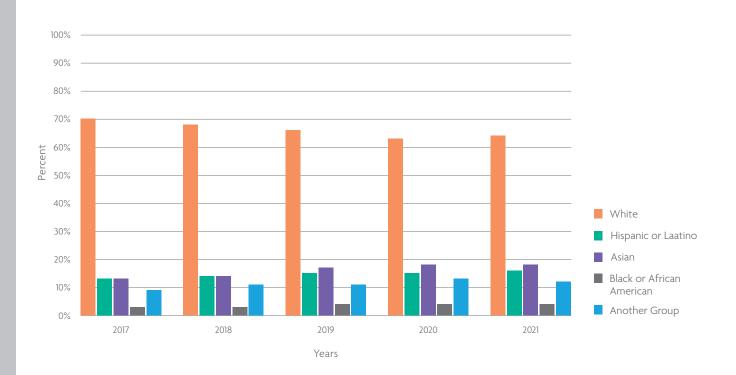
Women of all racial and ethnic groups saw a slightly larger increase in representation compared to men of the same group, resulting in a 5 percentage point decrease in the proportion of white men.



Majority of Candidates Finishing the AXP Identified as White

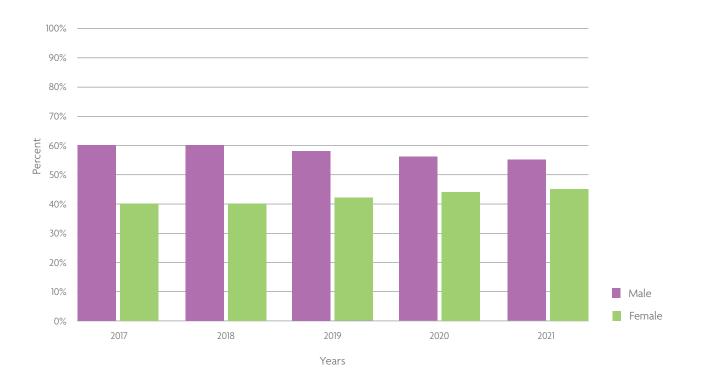
While white individuals made up 55% of candidates reporting experience in 2021, they also made up 64% of candidates completing the AXP in 2021—a 1 percentage point increase compared to 2020.

Asian candidates were the next most represented at 18%. Hispanic or Latino candidates made up 16% of individuals completing the AXP and candidates from another racial or ethnic group making up 12%. Black or African American candidates were the least represented racial and ethnic group, making up 4% of individuals completing the AXP in 2021.



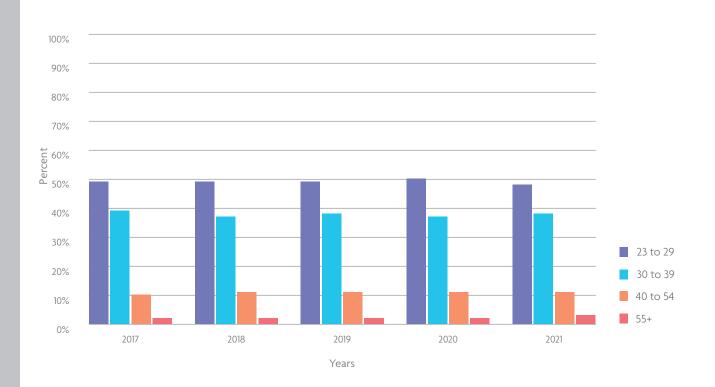
Gender Representation in AXP Completions Increased Slightly

Women made up 45% of the population of candidates who completed the AXP in 2021, a 1 percentage point increase compared to 2020. This is still 3 percentage points fewer than the proportion of women who were working toward completing the experience program in 2021.



Proportion of Candidates Over 30 Completing the AXP Increased

The proportion of individuals completing the AXP in 2021 who were between the ages of 30-39 and 55 or older both rose by 1 percentage point—despite the fact that candidates are now starting the path to licensure younger than ever. The proportion of candidates completing the experience program in 2021 who were between the ages of 23-29 fell by 2 percentage points in 2021.

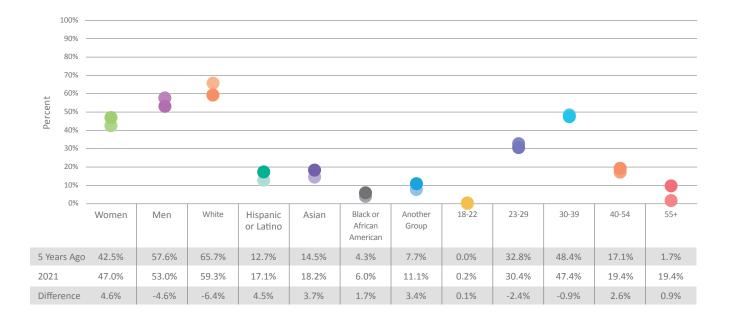


Diversity Increased for Candidates Taking the ARE

White candidates made up nearly 60% of individuals taking the ARE in 2021. Hispanic or Latino candidates made up 17%, Asians made up 18%, and Black or African Americans made up 6%—increases of 5, 4, and 2 percentage points compared to 2017.

Women made up 47% of candidates taking the exam in 2021, an increase of just under 5 percentage points over the past five years.

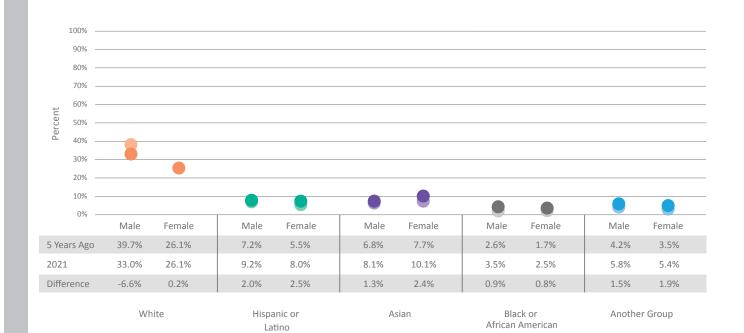
Additionally, older candidates were more represented in the pool of individuals taking the ARE, with 40-54-year-olds making up 19% of candidates testing.



Larger Proportion of Asian and Latina Women Took the ARE in 2021

In 2021, white men made up a third of the pool of candidates taking the ARE. At 26%, white women were the next most represented group.

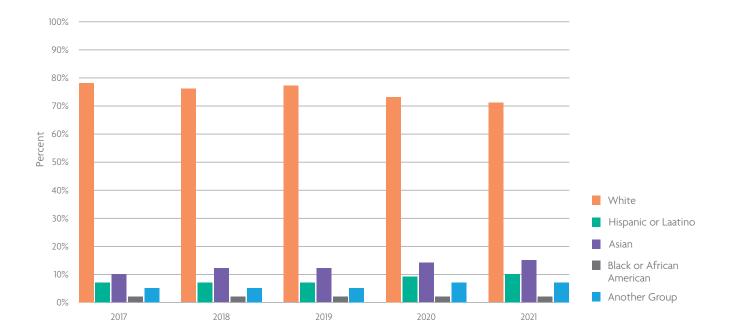
Asian and Hispanic or Latino men and women made up between 8-10% of the candidate pool each, with Asian and Latina women increasing by 2.4 and 2.5 percentage points each—the largest increases seen across all demographic groups.



Proportion of Latino and Asian Architects Passing the ARE Increased

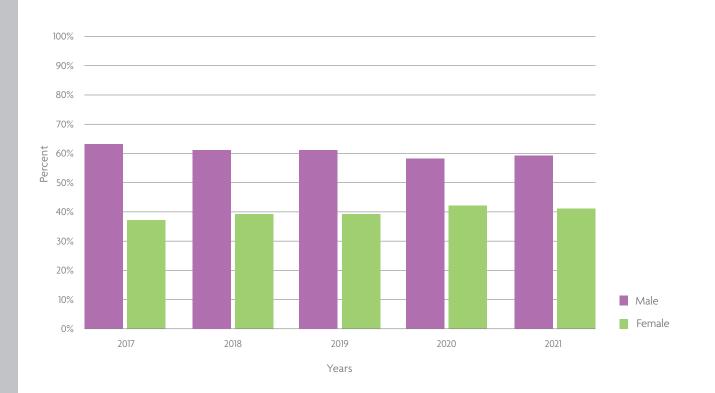
In 2021, 15% of candidates who passed the ARE identified as Asian, and 10% identified as Hispanic or Latino—a 1 percentage point increase for both groups. Meanwhile, the proportion of candidates passing the ARE who identify as Black or African American (2%) has not changed since 2017.

While white candidates made up 59% of candidates taking the ARE in 2021, they represented 71% of candidates passing the ARE.



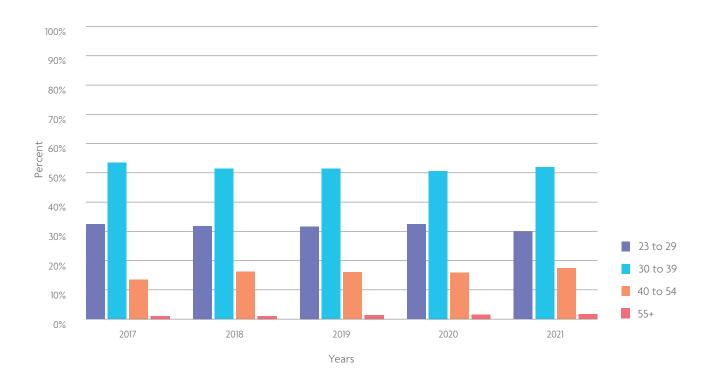
Gender Representation in ARE Completions Decreased

The proportion of candidates completing the ARE who identified as women fell by 1 percent in 2021 to 41%. However, women made up 47% of candidates taking the ARE in 2021—a 6 percentage point gap that is likely due to the higher pass rates seen for white men across the ARE.



Proportion of Candidates Under 30 Completing the ARE Decreased

The proportion of candidates who completed the ARE in 2021 and were aged 23-29 at the time fell by 2 percentage points in 2021. The majority of candidates completing the ARE (52%) were between the ages of 30-39, with a 1 percentage point increase also seen for candidates in the 40-54 and 55+ age groups.



Proportion of New Asian Architects Increased

While white candidates made up 55% of candidates reporting experience and 59% of candidates taking the exam in 2021, they represented a significantly larger proportion of candidates who completed the path to licensure in 2021 (72%).

Asian candidates made up nearly 15% of individuals completing the path to licensure in 2021, a 5.4 percentage point increase compared to 2017. Hispanic or Latino candidates made up nearly 10% of new architects, and individuals who identify as some other race or ethnicity (such as Native American or Pacific Islander) made up 7.5%. Black or African American individuals continue to be the least represented in the population of new architects at 2.3%, an increase of less than half a percentage point compared to 2017.

Women made up more than 40% of new architects in 2021, an increase of 4% compared to 2017. And a larger proportion of the new architect population was 40 or older in 2021, compared to the age distribution of new architects seen five years ago.



Proportion of New Female Asian Architects Increased

Asian women made up 8.2% of new architects in 2021—an increase of 3.3 percentage points compared to 2017 and the largest representation seen for any group besides white men and women. The proportion of new architects who identify as Asian men rose by 2 percentage points to 6.7%.

By comparison, Black or African American men and women make up roughly the same proportion of new architects as they did five years ago at 1.3% and 1.1%, respectively.



White

Hispanic or Latino Asian

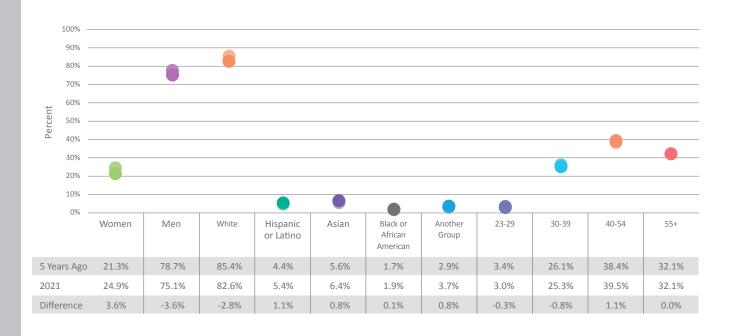
Black or African American Another Group

Slight Shift Seen in Diversity of Architect Population

While the diversity of earlier career stages continues to grow, the makeup of the architect population is slower to shift. While white candidates made up 72% of individuals completing the path to licensure, approximately 83% of NCARB Certificate holders identified as white in 2021.

Hispanic or Latino architects made up 5.4% of all NCARB Certificate holders in 2021, a 1.1 percentage point increase compared to 2017. Asian architects made up 6.4% and architects who identified under some other racial and ethnic group made up 3.7%—increases of .8% for both groups. The smallest shift was seen for Black or African American architects, who made up 1.9% of the NCARB Certificate holder population in 2021—just a .1 percentage point increase compared to 2017.

Female architects made up 3.6 percentage points more of the Certificate holder population in 2021 compared to 2017 (now 24.9%). And the proportion of Certificate holders in the 40-54 age group rose by 1.1 percentage points, with the 23-29 and 30-39 age groups both decreasing by less than a percentage point.



White Men Made Up Nearly Two-Thirds of Architect Population in 2021

White men made up just under two-thirds (64%) of NCARB Certificate holders in 2021, a decrease of 5 percentage points compared to 2017.

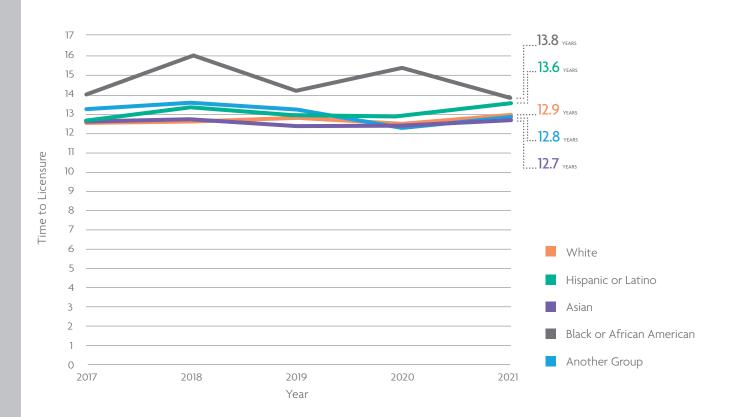
White women are the next most represented group at 19%, with every other racial/ethnic and gender group making up less than 4% of the NCARB Certificate holder population.

At .5% of NCARB Certificate holders, Black or African American women continue to be the least represented demographic group in the architect population—an increase of just .1 percentage points since 2017.



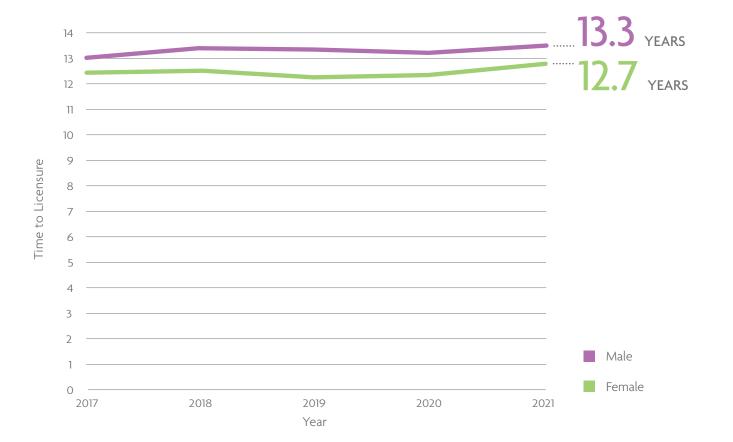
Asian Candidates Complete the Licensure Process Fastest

The average Asian candidates who completed the path to licensure in 2021 took 12.8 years, the fastest time seen for any racial or ethnic group. White candidates took an average of one month longer than their Asian peers, while Hispanic or Latino and Black or African American took 10 months and one year longer on average, respectively.



Women Complete the Licensure Process Faster Than Men

The average woman completing the licensure process in 2021 took 12.7 years—six months faster than the average man who completed the licensure process in 2021. Over the past five years, women have consistently earned their licenses in less time than their male peers.



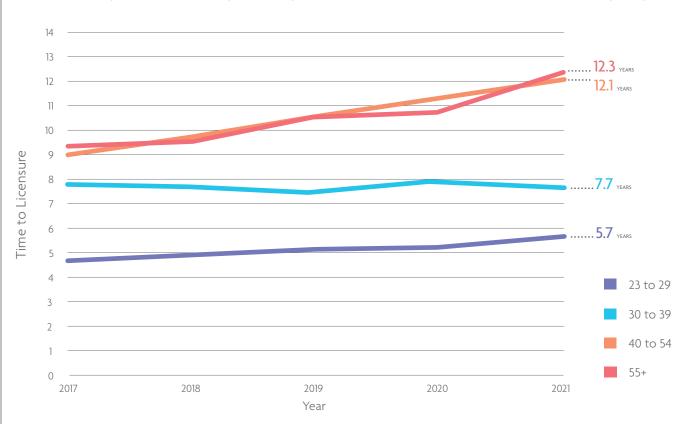
Individuals 55 and Older Take Longer to Earn a License

To help provide a clearer picture of the differences in time to licensure by age, NCARB compares the time from the date a candidate started their NCARB Record to the date they completed their final licensure requirement—as opposed to other "time to licensure" charts, which use the date a candidate began their college degree as the start date. This provides a more accurate comparison for older candidates, who may have earned an unrelated degree earlier in their careers.

Candidates in the 18-29 age group completed the licensure process the soonest, taking just 5.7 years on average. This is two years sooner than those in the 30-39 age group, who took an average of 7.7 years.

Candidates aged 40-54 and 55+ took an average of 12.1 and 12.3 years, respectively.

Note: The pool of candidates over 55 years old is very small, which can lead to dramatic fluctuations in time to licensure from year to year.



Navigating the Path

Assessing when and why candidates stop pursuing a license is crucial to understanding the impact licensure requirements have on emerging architecture professionals. Understanding how attrition varies across demographic groups also allows NCARB to discern areas where candidates may face unintended impediments on the licensure path.

By 2021, 36% of candidates who started the licensure path a decade ago had stopped pursuing a license, with the remaining 64% having completed or still working on their licensure requirements. This represents a slight (one percentage point) improvement compared to attrition seen in 2020. Most candidates who fell off the path did so before starting NCARB programs or while working to gain and report experience.

Of candidates who started working toward an architecture license in the last five years, women are more likely to stay on the path. Younger candidates (18-29 and 30-39 age group) are also more likely to stay on the path than their 40+counterparts. Across the years, white candidates remain the least likely racial and ethnic group to fall off the path, with disparities between candidates of different racial and ethnic groups seen as soon as two years into the licensure process. The gap between races and ethnicities does begin to shrink, however, for candidates who started the path in 2012 and later.

OVER 10 YEARS

64%

OF ALL

CANDIDATES

stay on the path to licensure, including:

57%

OF BLACK OR

AFRICAN AMERICAN

CANDIDATES

67%
OF WHITE
CANDIDATES

56%
OF CANDIDATES
IDENTIFYING AS
ANOTHER GROUP

57% OF ASIAN CANDIDATES

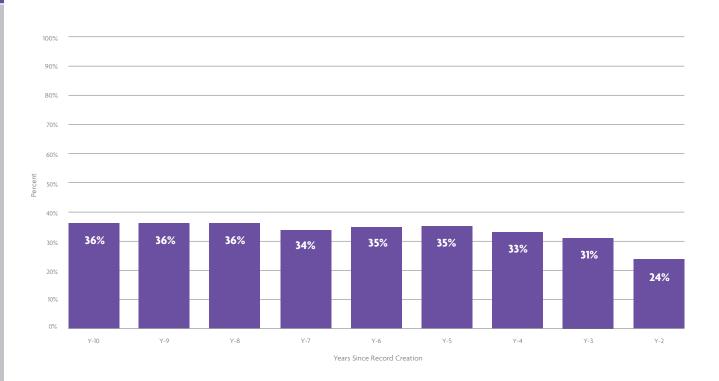
60%
OF HISPANIC OR
LATINO CANDIDATES

40+ (1)
YEAR OLD

candidates more likely to stop pursuing licensure



Over 10 Years, 36% of Candidates Stop Pursuing Licensure



Of candidates who created an NCARB Record ten years ago (Y-10), 36 percent stopped working toward earning a license.

2021's attrition rate at the 10-year mark (candidates who started working toward an architecture license in 2012) is the same rate of attrition seen after a decade in 2020 and 2019, indicating a potential slow in candidate attrition.

High attrition numbers are likely impacted by the effects of the COVID-19 pandemic on the profession, as the number of candidates reporting experience and taking the exam dropped during 2020.

Note: Candidates who started their NCARB Record in 2021 are defined as active (because they started a record in that calendar year) and not represented on this chart.

20%

10%

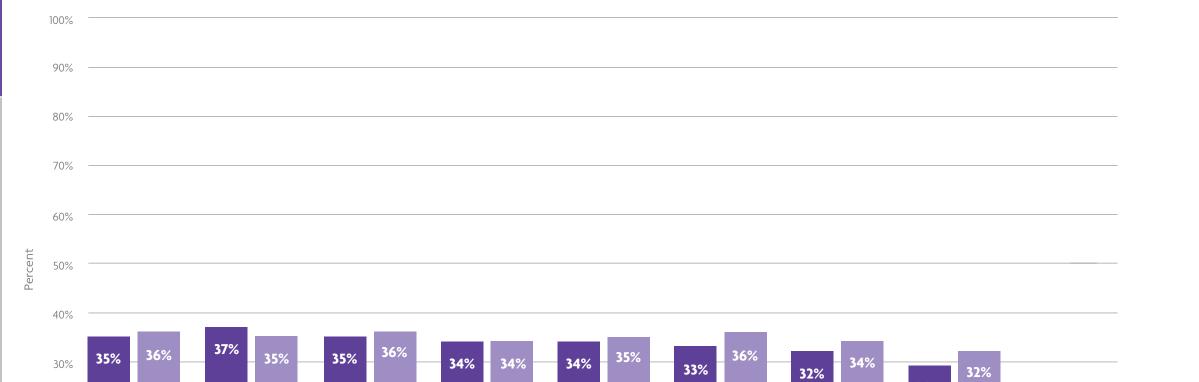
Y-10

Y-9

Y-8

Y-7

Women Slightly Less Likely to Stop Pursuing Licensure



Y-6

Years Since Record Creation

Y-5

Y-4

Y-3

Historically, women have left the path to licensure at higher rates than men. In the last decade, however, the trend has started to reverse, with women slightly less likely to fall off the path than men in recent years. Among candidates who started the path to licensure in the last five years, the proportion of women leaving the path is 1-3 percentage points fewer than the proportion of men, similar to the attrition levels seen in last year's report.

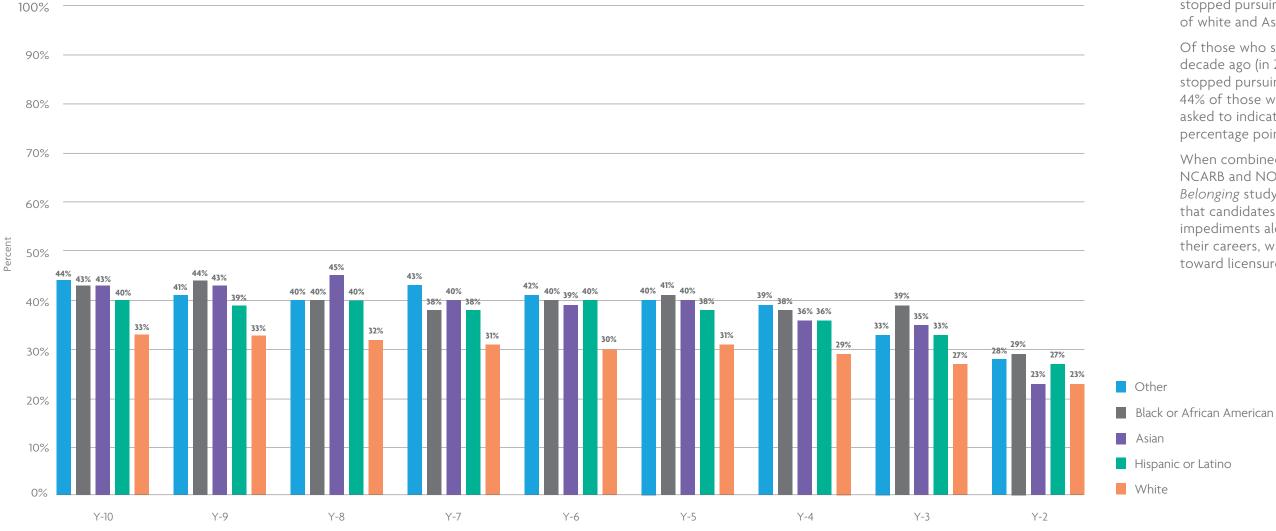
While NCARB's demographic data shows that there is still work to be done to achieve equal gender representation in the profession, continued lower rates of female attrition on the path to licensure should help address this historical imbalance over time.

Woman

Men

Y-2

Over 10 Years, People of Color More Likely to Stop Pursuing License



Years Since Record Creation

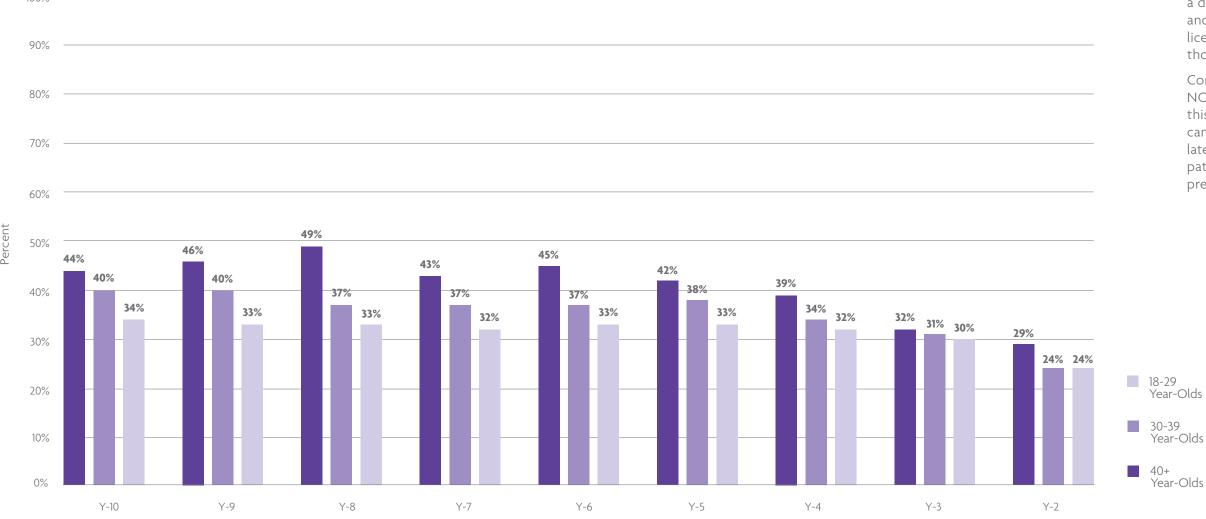
While disparities have reduced slightly among more recent cohorts, white candidates consistently leave the path at the lowest rate every year. The gap in attrition between racial and ethnic groups is seen as soon as two years into the licensure process, with 29% of Black or African American candidates who started a Record in 2020 having already stopped pursuing licensure, compared to 23% of white and Asian candidates.

Of those who started an NCARB Record a decade ago (in 2012), 33% of white candidates stopped pursuing a license compared to 44% of those who selected "other" when asked to indicate a race or ethnicity—an 11 percentage point gap.

When combined with results from NCARB and NOMA's joint *Baseline on Belonging* study, these disparities suggest that candidates of color face specific impediments along the path starting early in their careers, which build up as they progress toward licensure.

NCARB BY THE NUMBERS | 2022

40+ Candidates More Likely to Stop Pursuing Licensure



Years Since Record Creation

Candidates between 18-29 years old are more likely to stay on the path to licensure compared to candidates aged 30-39 and 40+.

Regardless of when they started their NCARB Record, data from the past decade shows that candidates over 40 are the most likely age group to stop pursuing a license. Of those who started the path to licensure a decade ago (2012), 44% of candidates 40 and older have since fallen off the path to licensure—10 percentage points more than those aged 18-29.

Combined with findings from NCARB and NOMA's joint *Baseline on Belonging* survey, this data highlights the difficulties faced by candidates who start the licensure process later in life, or who return to the licensure path after having stopped pursuing a license previously in their careers.

Candidate Progress on the Path to Licensure by Gender

For candidates who started the path to licensure more than a decade ago (between 2007-2011), women were 6 percentage points more likely to fall off the path to licensure than men 45% vs. 39%). Both men and women who started the licensure path between 2007-2011 were most likely to fall off the path while taking the ARE. 35% of women and 40% of men who started the licensure path between 2007-2011 are now licensed architects.

The attrition seen between men and women shifts for candidates who started the path to licensure between 2012-2016, with equal proportions of men and women falling off the path at 35%—typically while gaining professional experience or testing for the ARE.

For candidates who recently started the path to licensure (2017-2021), men were slightly more likely to fall off the path than women at 26%. Women who recently started the path are also more likely to be actively pursuing an architecture license at 74%, versus 69% of men.

Candidates Who Started Their NCARB Record Between 2007-2011

		Female	Male
Off the Path	Before Starting NCARB Programs	11%	11%
	Between AXP and Exam	7%	7%
Off th	During AXP	12%	9%
O	During Exam	15%	12%
	Off the Path Total	45%	39%
On the Path	Active Candidate	20%	21%
On 1 Pat	Architect	35%	40%
	On the Path Total	55%	61%

Candidates Who Started Their NCARB Record Between 2012-2016

		Female	Male
Off the Path	Before Starting NCARB Programs	8%	9%
	Between AXP and Exam	3%	4%
	During AXP	13%	12%
	During Exam	11%	11%
	Off the Path Total	45%	39%
the th	Active Candidate	20%	21%
On the Path	Architect	35%	40%
	On the Path Total	55%	61%

Candidates Who Started Their NCARB Record Between 2017-2021

		Female	Male
Off the Path	Before Starting NCARB Programs	10%	12%
	Between AXP and Exam	1%	2%
	During AXP	11%	11%
	During Exam	2%	2%
	Off the Path Total	45%	39%
On the Path	Active Candidate	20%	21%
On	Architect	35%	40%
	On the Path Total	55%	61%

Candidate Progress on the Path to Licensure by Race and Ethnicity

Greater disparities are seen when candidate progress and attrition is viewed by race and ethnicity. Across the years, white candidates remain the least likely racial and ethnic group to fall off the path. The gap between races and ethnicities does begin to shrink, however, for candidates who started the path in 2012 and later.

For candidates who started the path to licensure between 2007-2011, there was a 14 percentage point gap between the least likely group (white candidates) and the most likely group (Black or African Americans candidates) to fall off the path. Additionally, 18% of African Americans fell off the path before starting NCARB programs. Asians were the next most likely group to fall off the path, typically while taking the exam.

For candidates who started their licensure journey slightly later (between 2012 and 2016), the gap between the least likely group (white candidates) and the most likely group (Asian candidates) is approximately 10 percentage points. Additionally, these candidates were most likely to fall off the path while earning professional experience.

For those who recently started the path to licensure (2017-2021), 71-77% of individuals across racial and ethnic groups are still active on the path. Those who selected "another group" when asked to indicate their race and ethnicity were the most likely to fall off the path at 29%, closely followed by African American and Asian candidates, both at 28%. Most candidates that fell off the path did so before starting NCARB programs or while working to gain and report experience.

Candidates Who Started Their NCARB Record Between 2007-2011

		Another Group	Asian	Black or African American	Hispanic or Latino	White
Path	Before Starting NCARB Programs	12%	12%	18%	12%	10%
Off the	Between AXP and Exam	7%	7%	6%	8%	7%
Off	During AXP	13%	11%	14%	10%	9%
	During Exam	15%	18%	13%	15%	12%
	Off the Path Total	46%	48%	52%	46%	38%
the th	Active Candidate	22%	23%	31%	29%	18%
On the Path	Architect	31%	28%	17%	25%	43%
	On the Path Total	53%	52%	48%	54%	62%

Candidates Who Started Their NCARB Record Between 2012-2016

		Another Group	Asian	Black or African American	Hispanic or Latino	White
Path	Before Starting NCARB Programs	9%	9%	12%	9%	8%
Off the I	Between AXP and Exam	5%	3%	4%	5%	4%
Off	During AXP	13%	15%	14%	13%	11%
	During Exam	13%	14%	10%	12%	10%
0.	Off the Path Total	46%	48%	52%	46%	38%
On the Path	Active Candidate	22%	23%	31%	29%	18%
0 _	Architect	31%	28%	17%	25%	43%
	On the Path Total	53%	52%	48%	54%	62%

Candidates Who Started Their NCARB Record Between 2017-2021

		Another Group	Asian	Black or African American	Hispanic or Latino	White
Path	Before Starting NCARB Programs	13%	10%	14%	12%	10%
Off the Path	Between AXP and Exam	2%	2%	1%	2%	1%
O	During AXP	12%	13%	11%	11%	10%
	During Exam	2%	2%	2%	2%	1%
	Off the Path Total	46%	48%	52%	46%	38%
On the Path	Active Candidate	22%	23%	31%	29%	18%
0	Architect	31%	28%	17%	25%	43%
	On the Path Total	53%	52%	48%	54%	62%

Candidate Progress on the Path to Licensure by Age

Across the years, younger candidates (18-22 and 23-29) are less likely to fall off the path to licensure than candidates aged 40+.

For candidates who started the licensure path between 2007-2011, candidates aged 40-54 were 11 percentage points more likely to fall off the path than 23-29-year-old candidates (51% vs. 40%). Additionally, a high proportion of 55+ candidates (22%) fell off the path before starting NCARB programs.

For those who started the licensure path slightly later (2012-2016), the gap between the least likely and most likely age group to fall off the path widens: candidates aged 55+ were 23 percentage points more likely to fall off the path than 18-to-22-year-old candidates (55% vs. 32%). Most individuals—especially 40+ candidates—fell off the path while taking the ARE.

The attrition seen between age groups decreases for those who started the path to licensure more recently (2017-2021), with 22-31% of individuals across age groups falling off the path. Most candidates fell off before starting NCARB programs, with 40-54 and 55+ individuals the most likely to become inactive.

Candidates Who Started Their NCARB Record Between 2007-2011

		18 to 22	23 to 29	30 to 39	40 to 54	55+
th	Before Starting NCARB Programs	15%	9%	12%	18%	22%
ne Pa	Between AXP and Exam	3%	6%	10%	11%	4%
Off the Path	During AXP	12%	11%	8%	8%	8%
Ü	During Exam	10%	13%	16%	14%	12%
	Off the Path Total	41%	40%	46%	51%	47%
the th	Active Candidate	17%	19%	23%	20%	9%
On the Path	Architect	42%	41%	31%	29%	45%
	On the Path Total	59%	60	54%	49%	53%

Candidates Who Started Their NCARB Record Between 2012-2016

		18 to 22	23 to 29	30 to 39	40 to 54	55+
th	Before Starting NCARB Programs	9%	7%	10%	12%	12%
ne Pa	Between AXP and Exam	2%	4%	5%	2%	1%
Off the Path	During AXP	16%	12%	10%	4%	2%
Ü	During Exam	5%	10%	13%	26%	40%
	Off the Path Total	41%	40%	46%	51%	47%
the th	Active Candidate	17%	19%	23%	20%	9%
On the Path	Architect	42%	41%	31%	29%	45%
	On the Path Total	59%	60	54%	49%	53%

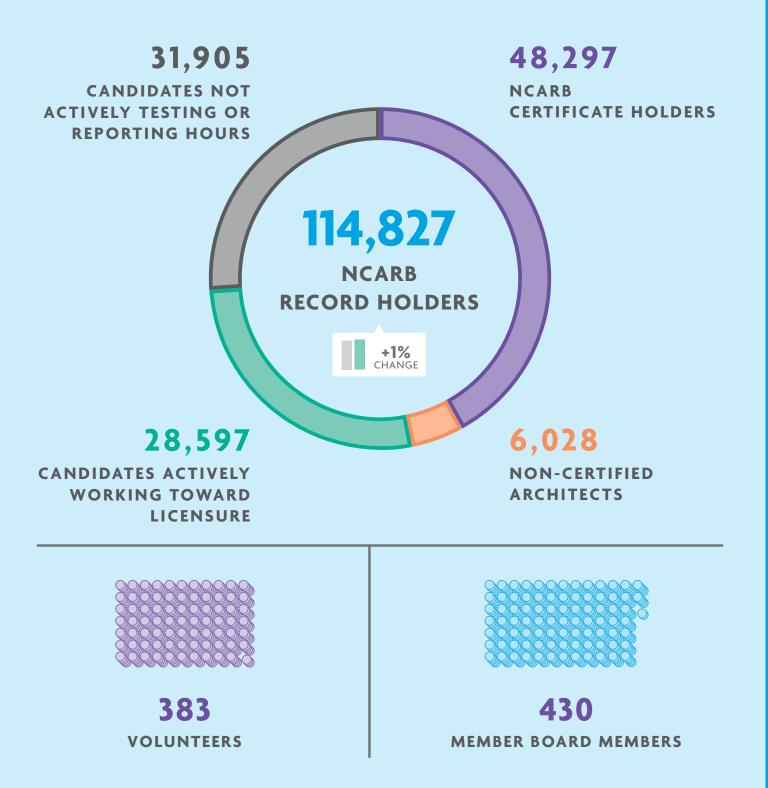
Candidates Who Started Their NCARB Record Between 2017-2021

		18 to 22	23 to 29	30 to 39	40 to 54	55+
t	Before Starting NCARB Programs	8%	9%	14%	19%	19%
ne Pa	Between AXP and Exam	0%	2%	2%	1%	1%
Off the Path	During AXP	13%	12%	8%	4%	1%
	During Exam	0%	2%	2%	6%	9%
	Off the Path Total	41%	40%	46%	51%	47%
On the Path	Active Candidate	17%	19%	23%	20%	9%
On	Architect	42%	41%	31%	29%	45%
	On the Path Total	59%	60	54%	49%	53%

Inside NCARB

With nearly 115,000 Record holders, more than 400 licensing board members, and over 350 volunteers, NCARB's community continues to grow. In 2021, our volunteers—made up of architects, licensure candidates, educators, and experts from other professions—came together across 24 committees to write exam questions, explore the future of architecture, develop resources for licensing boards, and more.

With 55 architectural licensing boards in the United States, each with its own rules and requirements, NCARB works to provide board support, encourage program alignment, and assist individuals seeking licensure. Of the 430 members who served on these boards in 2021, 218 were practicing architects, 140 were in related professions (such as engineering and landscape architecture), and 72 ensured the public consumer has a voice on the board.

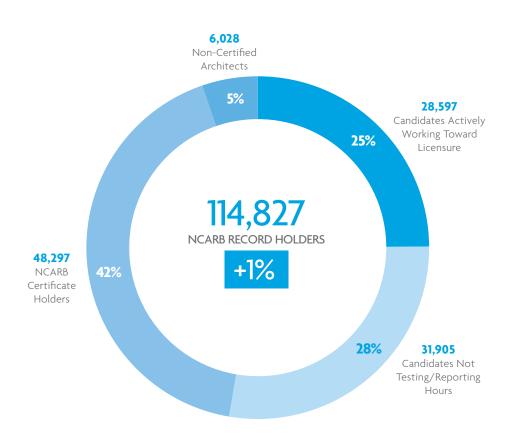


NCARB's Record Holder Community

Over 114,000 individuals held an active NCARB Record in 2021, a 1% increase compared to 2020. Of those Record holders, 42% are architects with an NCARB Certificate (a 1 percentage point decrease from 2020), and 5% are architects without a Certificate (no change from 2020).

The proportion of Record holders actively working toward licensure fell by 2 percentage points in 2020 (now at 25%). The remaining 29 percent of individuals are licensure candidates who haven't taken a division of the ARE or reported AXP hours in the last year (up 3 percentage points since 2020). This is likely an ongoing impact of the COVID-19 pandemic, as the number of candidates reporting experience and taking the exam is still below pre-pandemic levels.

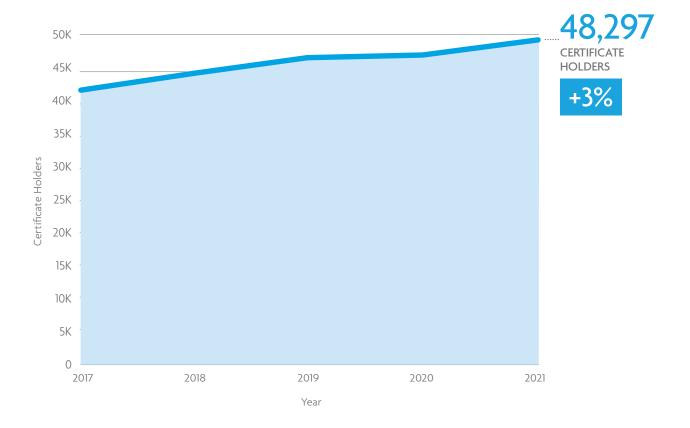
Note: The numbers represented in this chart reflect active Record holders as of December 31, 2022.



Number of Certificate Holders Grew

In 2021, over 48,000 architects held an active NCARB Certificate—an increase of 3% from 2020 and a new record high. The number of Certificate holders has been steadily increasing over the past five years, with a slight lull in 2020 due to the pandemic.

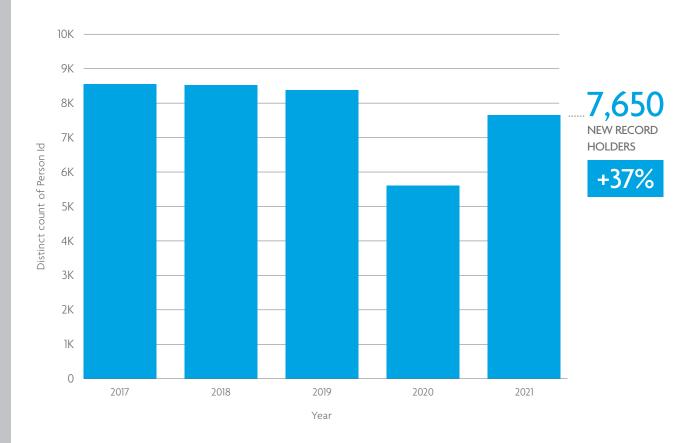
The NCARB Certificate simplifies the process of earning additional licenses in U.S. jurisdictions, as well as in select international locations including Australia, Canada, Mexico, and New Zealand. Certified architects also have access to free continuing education opportunities through NCARB's Continuum Education Program.



Number of New Record Holders Increased

Over 7,500 candidates opened an NCARB Record in 2021—over 2,000 more than in 2020 (an increase of 37%). While still below the levels seen prior to the COVID-19 pandemic, this signals that the licensure pipeline is on course to return to near-normal levels in the coming years.

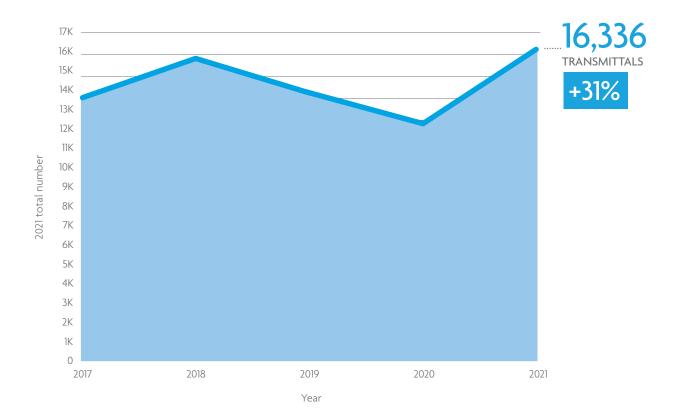
NCARB considers creating an NCARB Record the first step on the path to licensure, as candidates need a Record to verify their education, document professional experience, and take the licensing exam.



Growth in Number of Licensure Applications

When candidates apply for an initial license or architects apply for a reciprocal (out-of-state) license, NCARB transmits their Record to the jurisdiction's licensing board in support of their application.

At over 16,000, the number of both initial and reciprocal transmittals increased in 2021, with the total number of transmittals exceeding the numbers seen in 2017-2019 (prior to the pandemic). Of those 16,000 transmittals, more than 12,000 were in support of reciprocal licensure applications—an all-time high. While the number of initial licensure applications is still lower than those seen prior to the pandemic, the rise in the number of applications for reciprocal licensure indicates that the demand for professional mobility is stronger than ever.



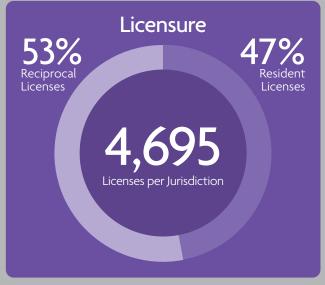
Jurisdictions

The following section includes baseline comparisons for NCARB's 55 Member Boards, which include all 50 states, the District of Columbia, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands. Each page includes a 2021 snapshot of the jurisdiction's experience program completion rate, examination success rate, number of licenses, and completion time for the experience program and examination.









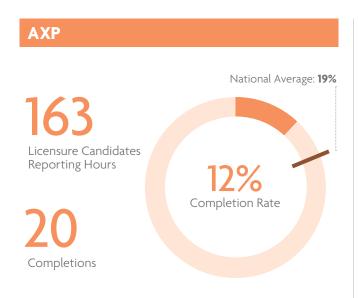
Jurisdictions

Alabama108	Illinois	12
Alaska109	Indiana	123
Arizona110	lowa	124
Arkansas111	Kansas	12!
California112	Kentucky	126
Colorado113	Louisiana	12
Connecticut114	Maine	128
Delaware115	Maryland	129
District of Columbia116	Massachusetts	130
Florida117	Michigan	13
Georgia118	Minnesota	132
Guam 119	Mississippi	13
Hawaii120	Missouri	134
Idaho121	Montana	13

Nebraska136
Nevada137
New Hampshire138
New Jersey139
New Mexico140
New York141
North Carolina142
North Dakota143
Northern Mariana Islands144
Ohio145
Oklahoma
Oregon147
Pennsylvania148
Puerto Rico149

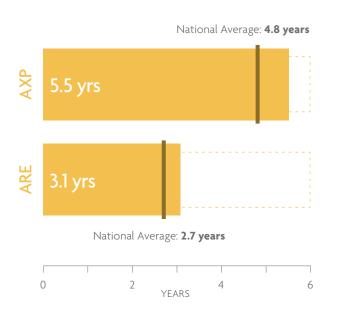
Rhode Island	150
South Carolina	151
South Dakota	152
Tennessee	153
Texas	154
Utah	155
Vermont	156
U.S. Virgin Islands	157
Virginia	158
Washington	159
West Virginia	160
Wisconsin	161
Wyoming	162

Alabama



76 Active Testers National Average: 55% National Average: 55% Success Rate

COMPLETION TIMELINE



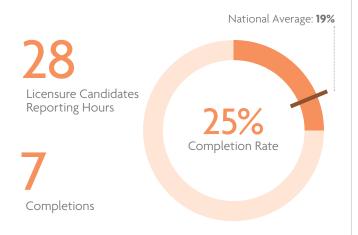


ARE

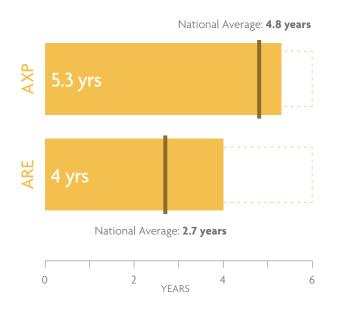


Alaska

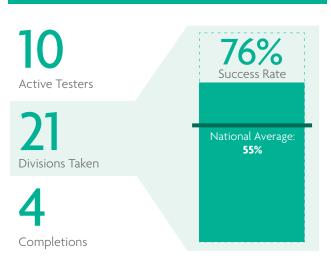
EXPERIENCE



COMPLETION TIMELINE



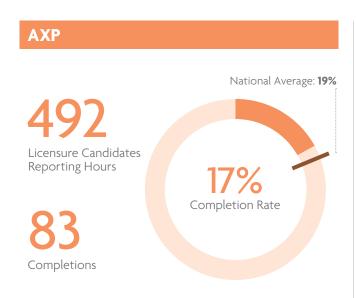
EXAMINATION



LICENSURE

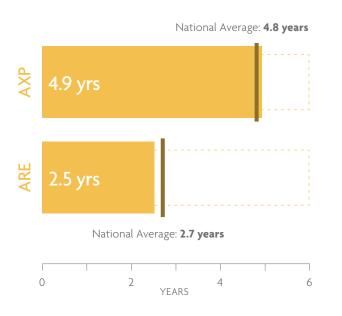


Arizona





COMPLETION TIMELINE

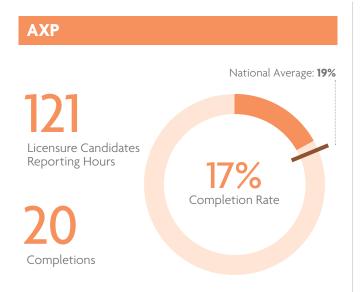


LICENSURE

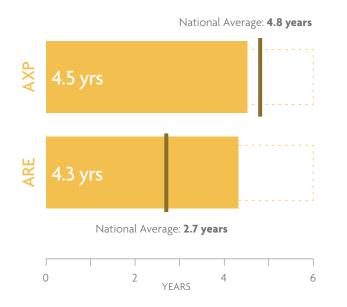
ARE



Arkansas



COMPLETION TIMELINE

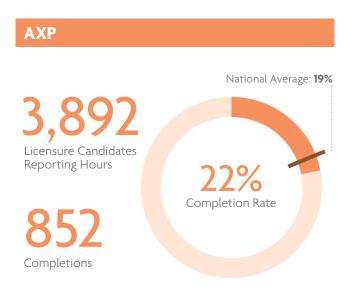




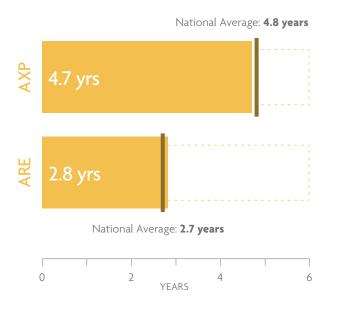


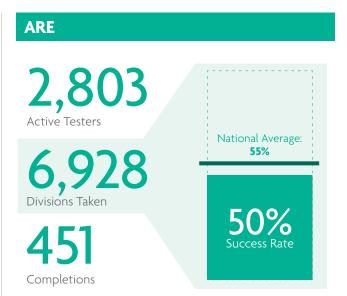


California



COMPLETION TIMELINE

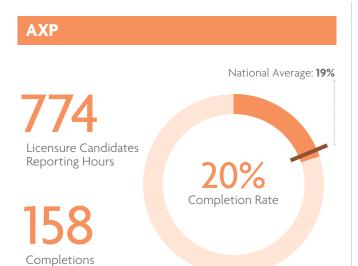




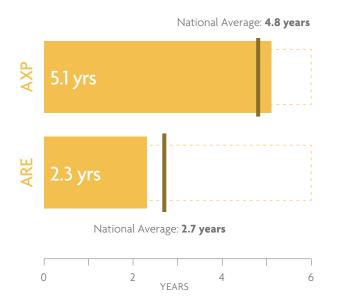


JURISDICTIONS

Colorado



COMPLETION TIMELINE



ARE



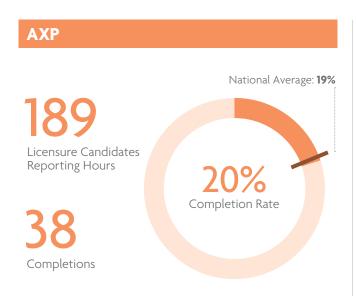
Divisions Taken

135 Completions



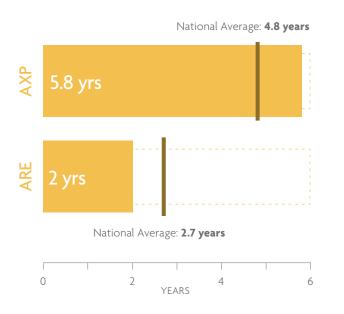


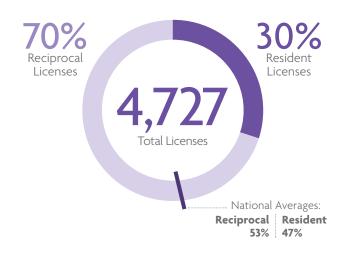
Connecticut



ARE 98 Active Testers 61% Success Rate National Average: 55% Completions

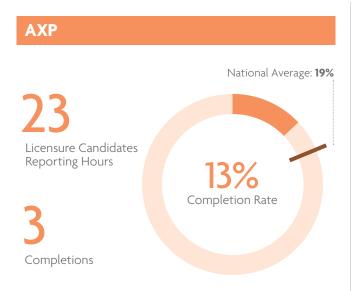
COMPLETION TIMELINE



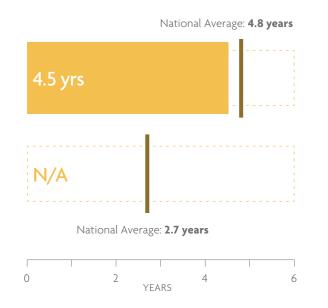


JURISDICTIONS

Delaware



COMPLETION TIMELINE

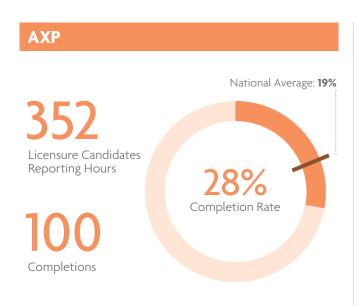


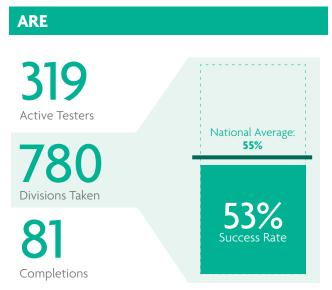
ARE



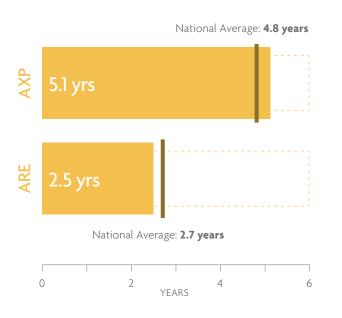


District of Columbia





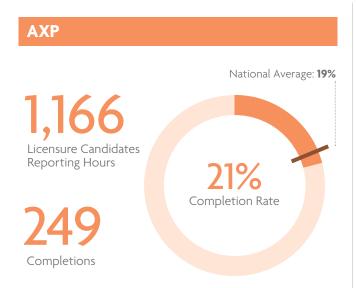
COMPLETION TIMELINE





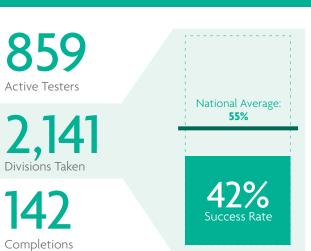
JURISDICTIONS

Florida

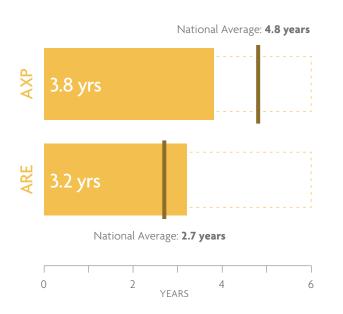


Completions

ARE

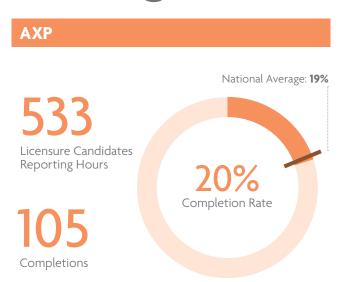


COMPLETION TIMELINE

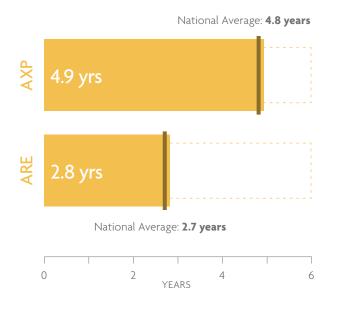




Georgia

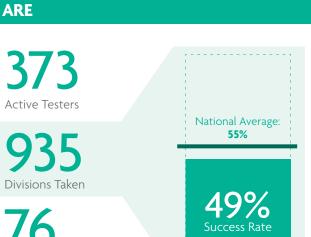


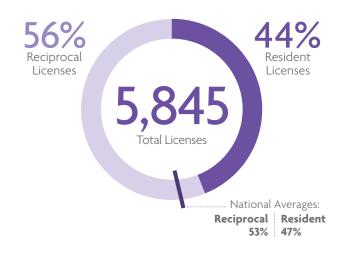
COMPLETION TIMELINE





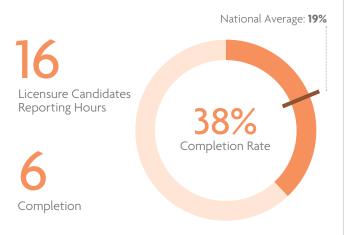
Completions



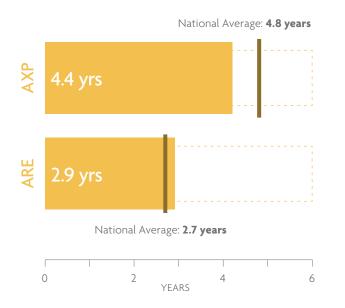


Guam





COMPLETION TIMELINE

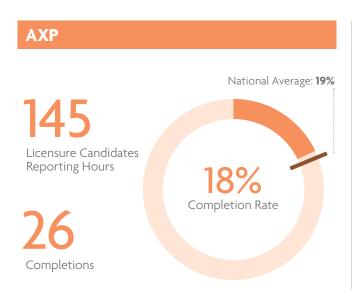




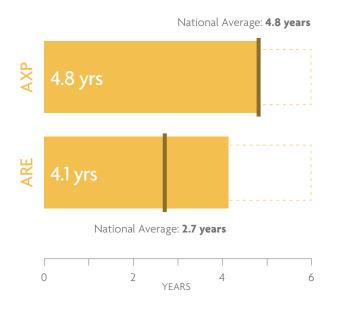




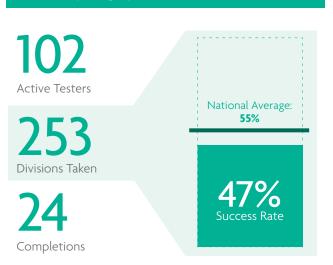
Hawaii

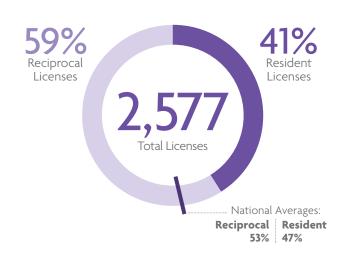


COMPLETION TIMELINE

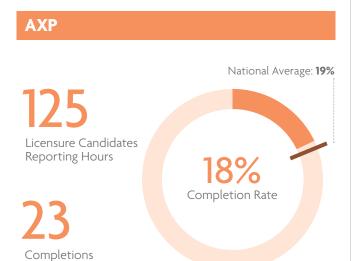


EXAMINATION

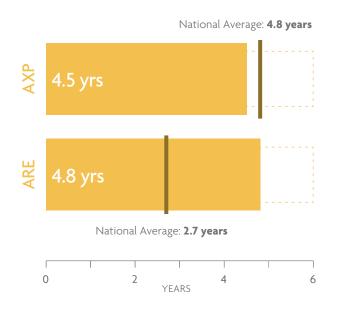




Idaho









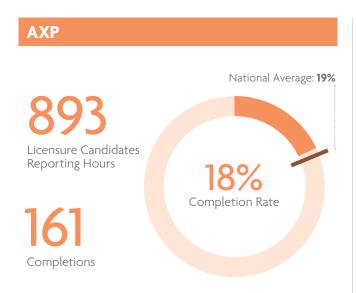




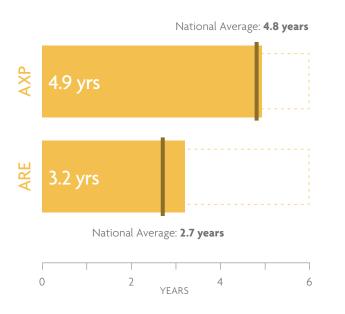




Illinois

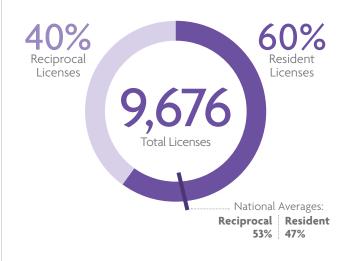


COMPLETION TIMELINE



EXAMINATION

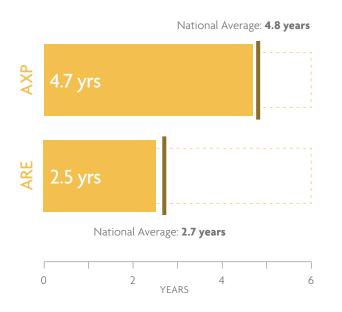




Indiana



COMPLETION TIMELINE

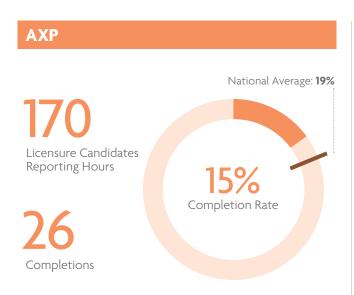


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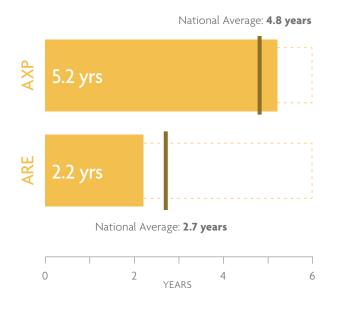




lowa



COMPLETION TIMELINE

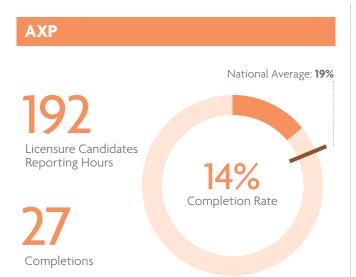




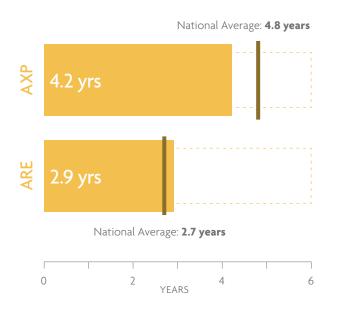




Kansas



COMPLETION TIMELINE

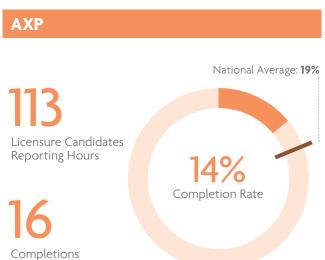


EXAMINATION





Kentucky



Reporting Hours 14% Completion Rate 165 Divisions Taken 21 Completions COMPLETION TIMELINE LICENSURE

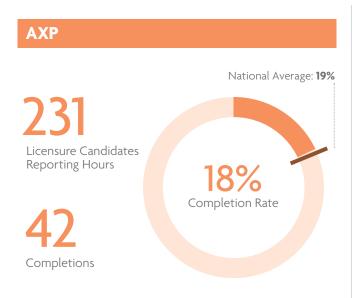
ARE

Active Testers

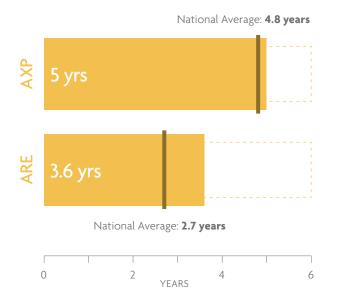
A.1 yrs 2.4 yrs National Average: 2.7 years National Average: 2.7 years



Louisiana



COMPLETION TIMELINE

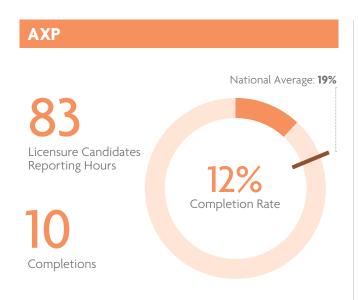


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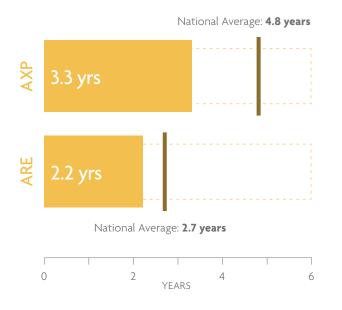




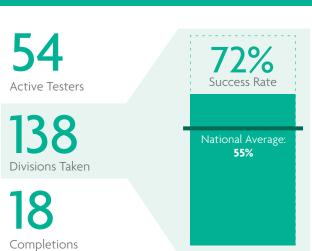
Maine



COMPLETION TIMELINE



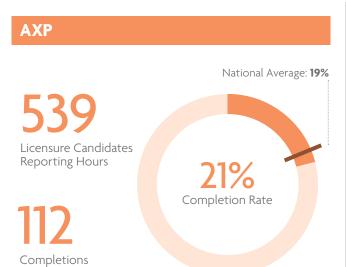




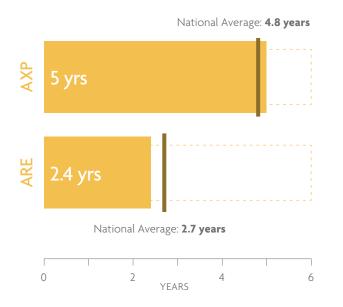


JURISDICTIONS

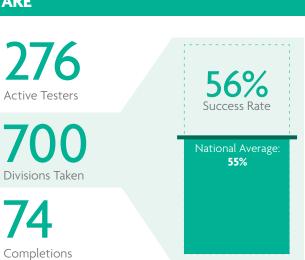
Maryland



COMPLETION TIMELINE

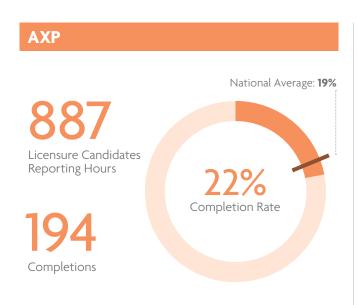


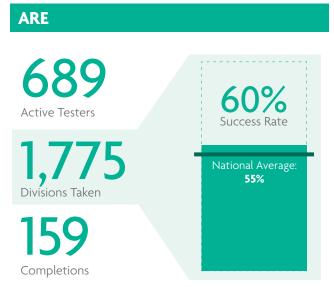
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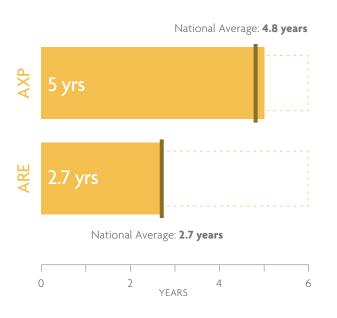


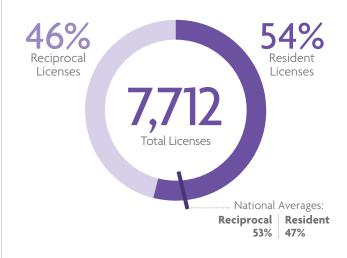
Massachusetts





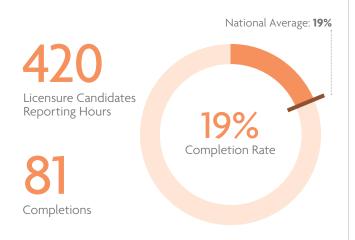
COMPLETION TIMELINE



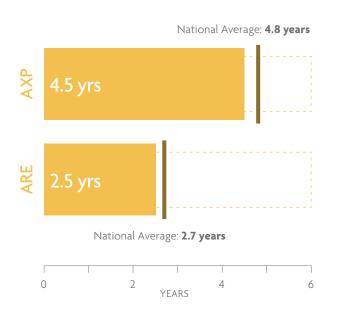


Michigan

EXPERIENCE



COMPLETION TIMELINE

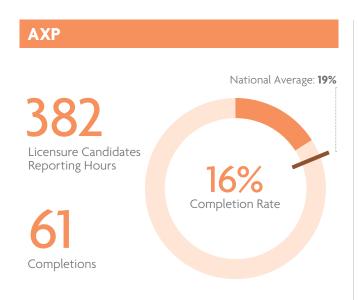


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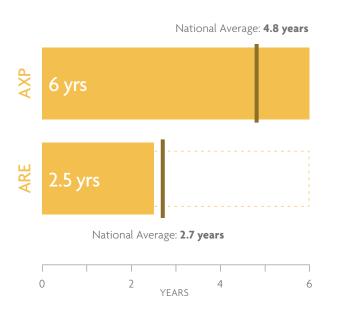


Minnesota



230 Active Testers 583 Divisions Taken 72 Completions

COMPLETION TIMELINE



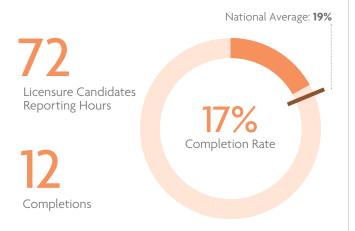
LICENSURE

ARE

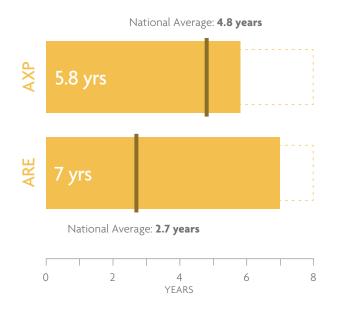


Mississippi

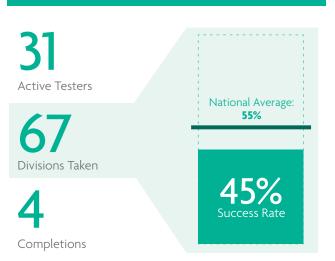
EXPERIENCE



COMPLETION TIMELINE

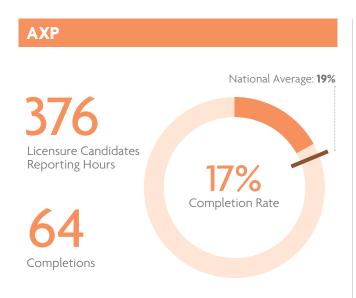


EXAMINATION

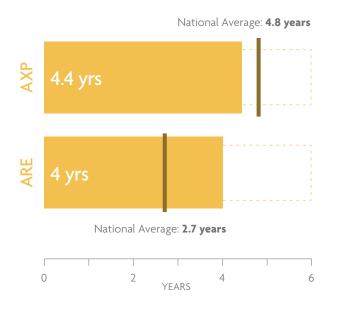


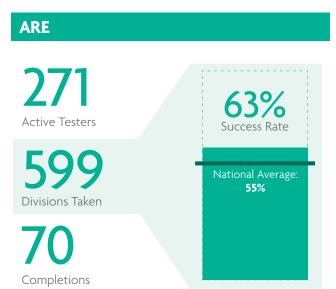


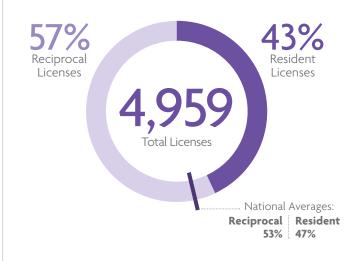
Missouri



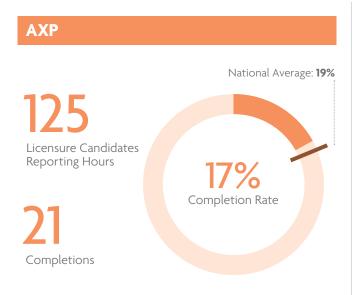
COMPLETION TIMELINE



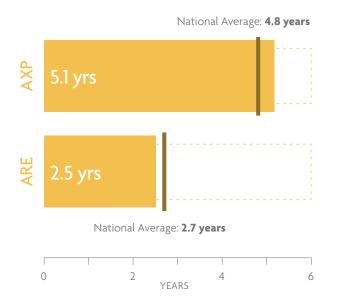




Montana



COMPLETION TIMELINE

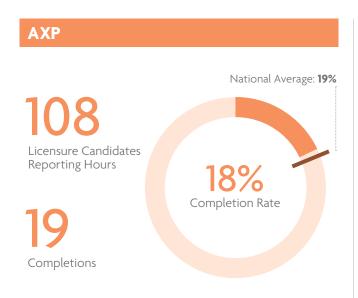


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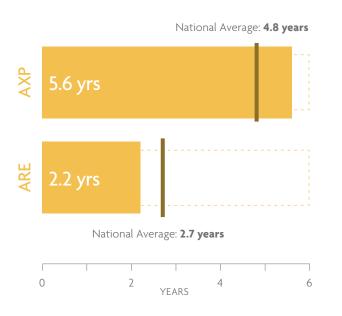


Nebraska



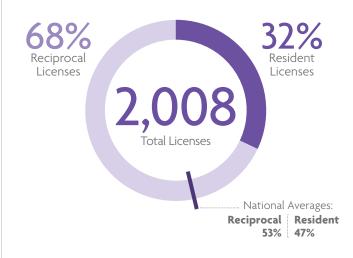
46 Active Testers 57% Success Rate National Average: 55% Completions

COMPLETION TIMELINE



LICENSURE

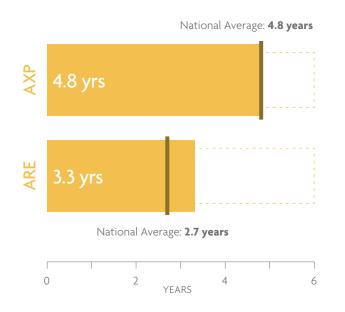
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Nevada



COMPLETION TIMELINE

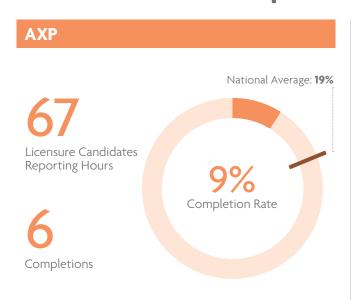


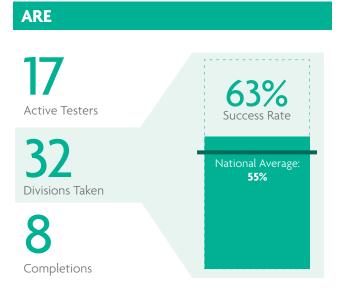
ARE



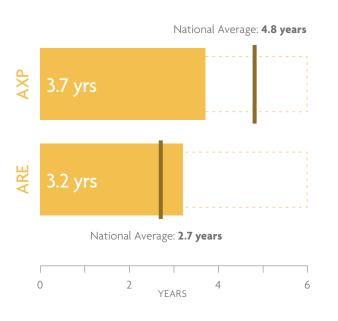


New Hampshire



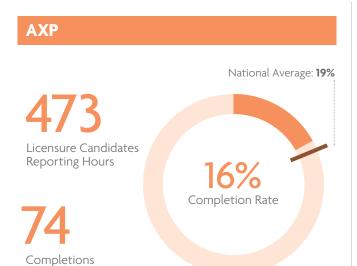


COMPLETION TIMELINE

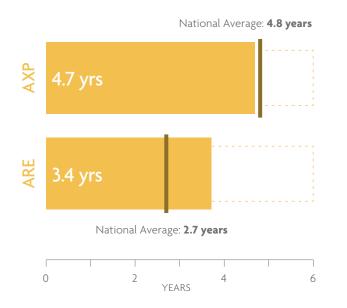




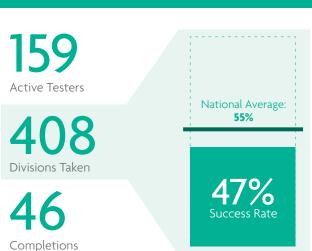
New Jersey



COMPLETION TIMELINE

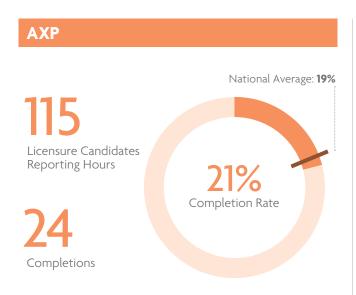


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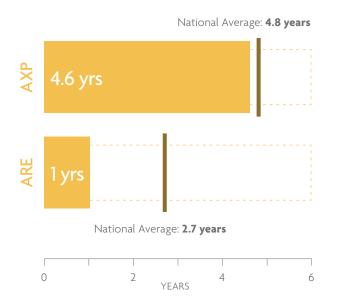


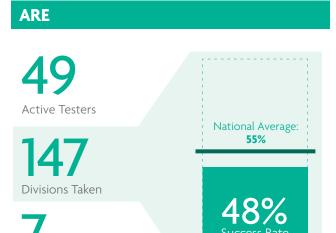


New Mexico



COMPLETION TIMELINE





LICENSURE

Completions



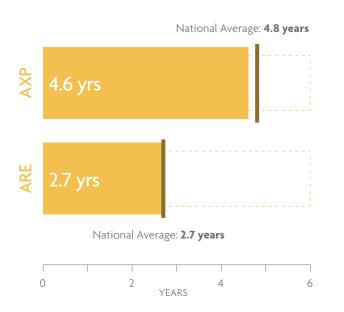
New York



ARE



COMPLETION TIMELINE

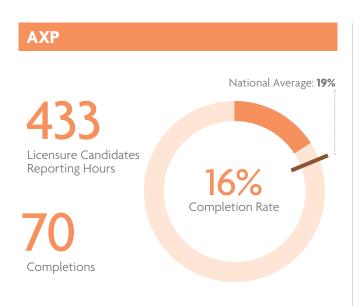


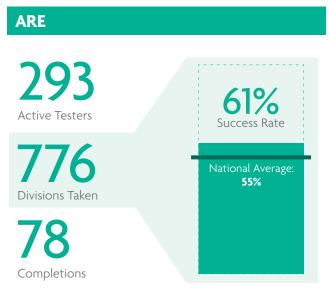
LICENSURE

Completions

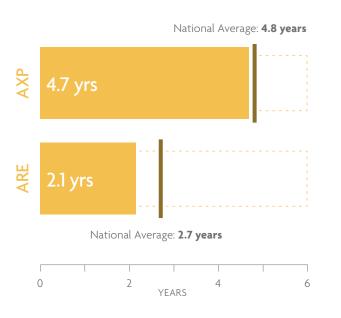


North Carolina





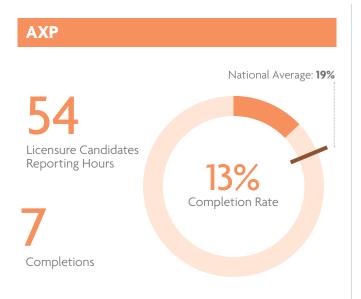
COMPLETION TIMELINE





JURISDICTIONS

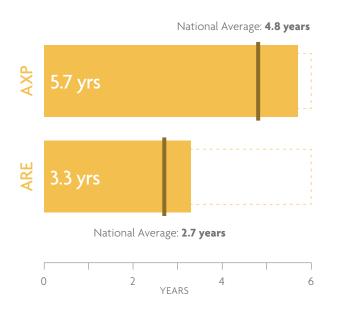
North Dakota



ARE

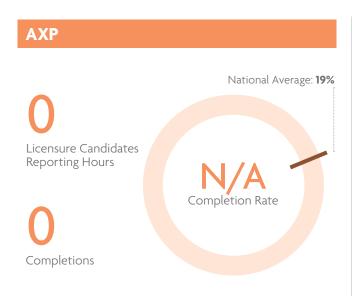


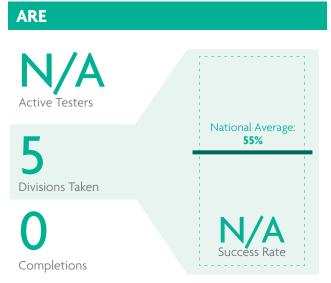
COMPLETION TIMELINE



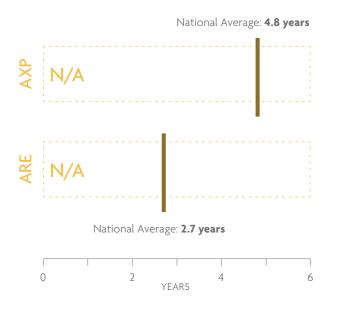


Northern Mariana Islands





COMPLETION TIMELINE

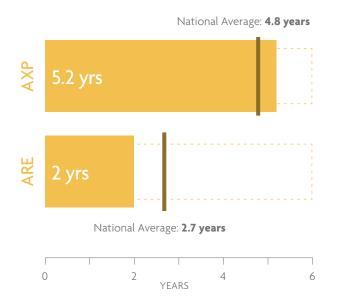




Ohio



COMPLETION TIMELINE

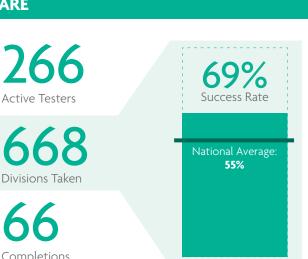


ARE



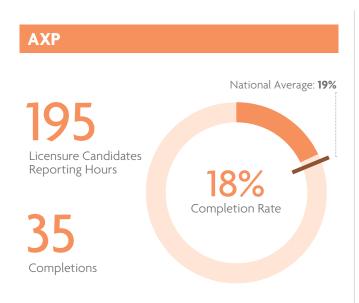


Completions

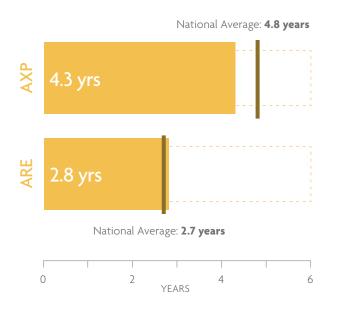


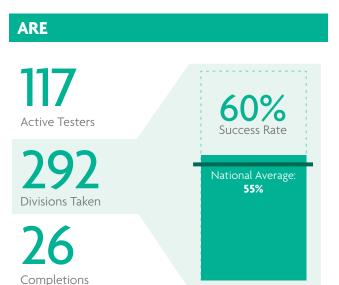


Oklahoma



COMPLETION TIMELINE

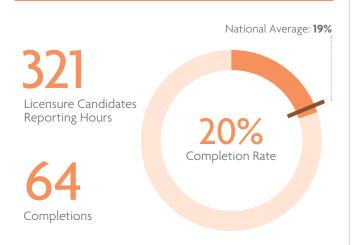




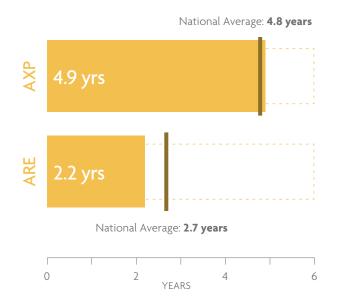


Oregon





COMPLETION TIMELINE

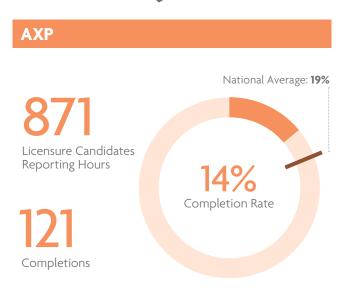


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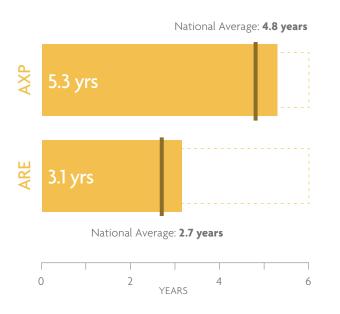




Pennsylvania



COMPLETION TIMELINE

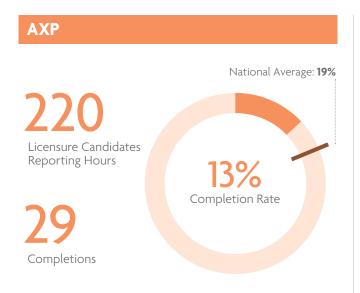


EXAMINATION

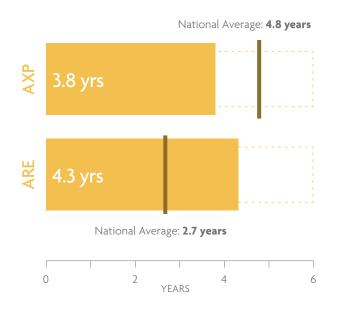




Puerto Rico



COMPLETION TIMELINE



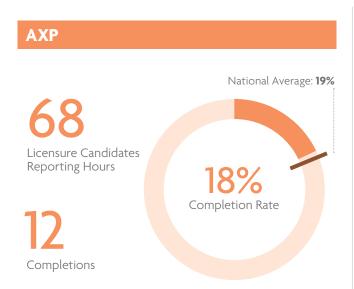


LICENSURE

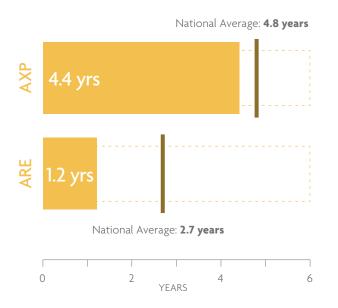
Completions

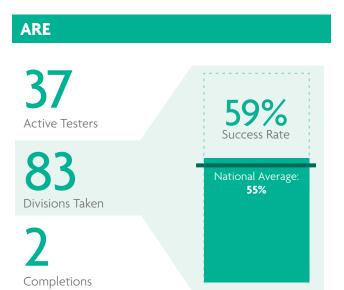


Rhode Island



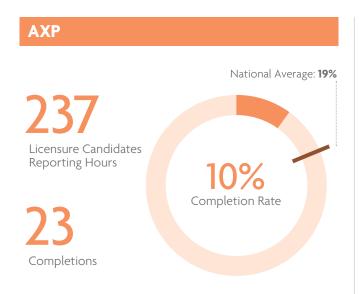
COMPLETION TIMELINE





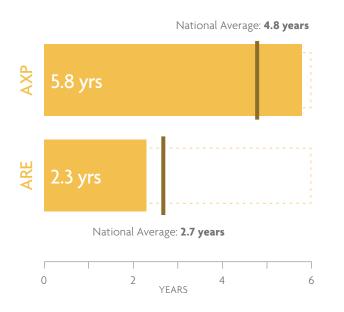


South Carolina



Active Testers 56% Success Rate National Average: 55%

COMPLETION TIMELINE



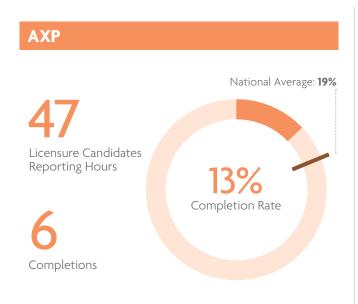
LICENSURE

Completions

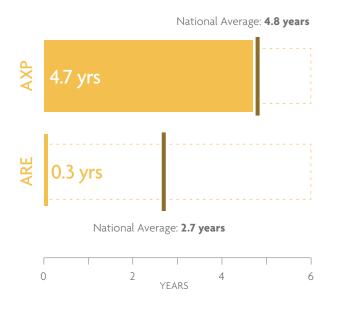
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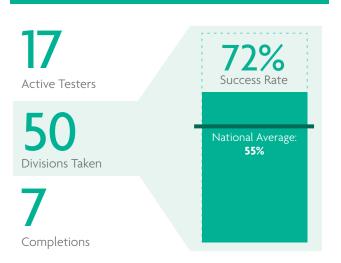
South Dakota

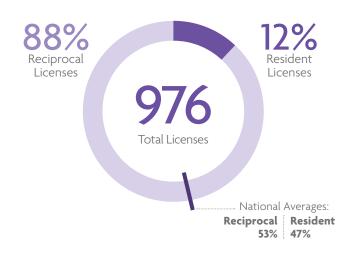


COMPLETION TIMELINE

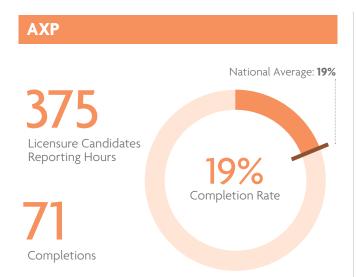


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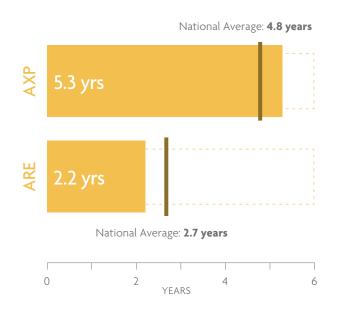




Tennessee



COMPLETION TIMELINE

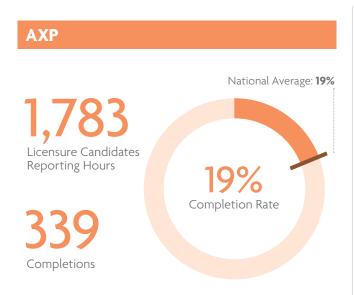


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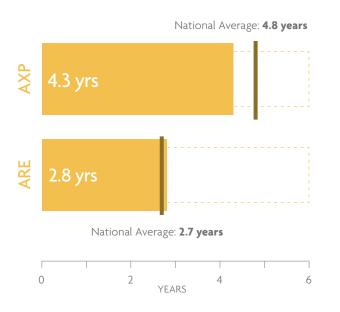


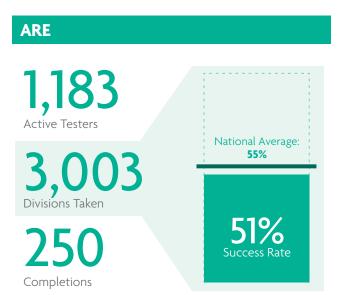


Texas



COMPLETION TIMELINE







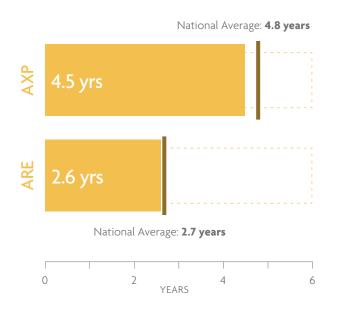
Utah



Completions



COMPLETION TIMELINE

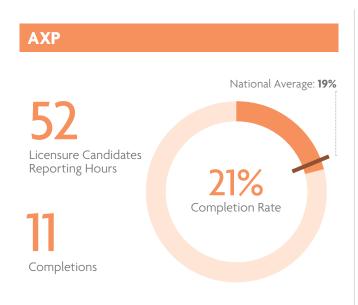


EXAMINATION

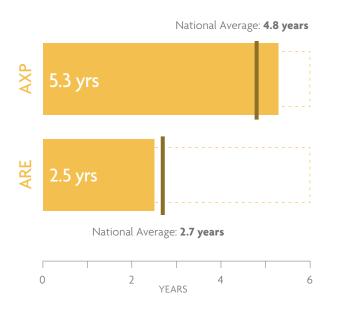




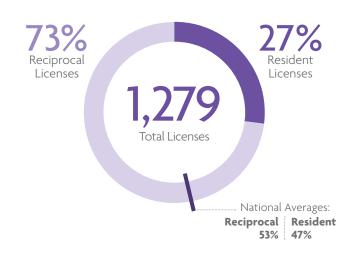
Vermont



COMPLETION TIMELINE

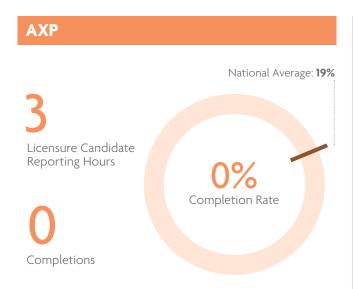




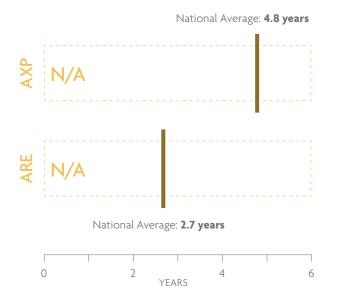


JURISDICTIONS

U.S. Virgin Islands



COMPLETION TIMELINE



ARE

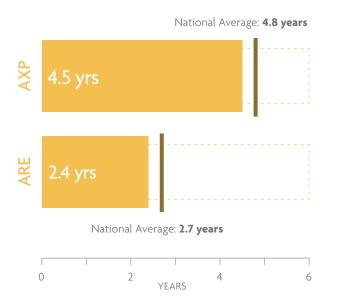




Virginia



COMPLETION TIMELINE





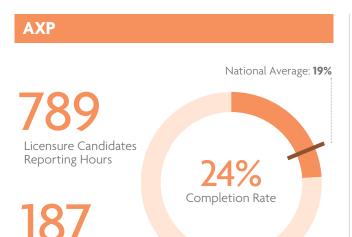
LICENSURE

Completions



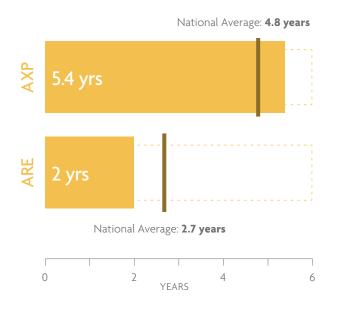
JURISDICTIONS

Washington



COMPLETION TIMELINE

Completions

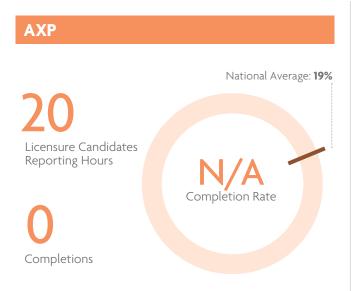


ARE

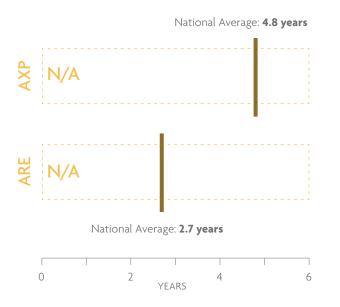




West Virginia



COMPLETION TIMELINE



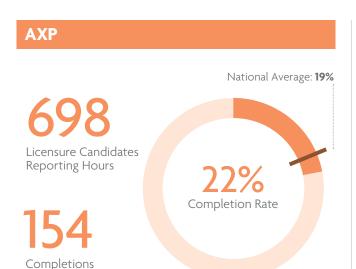




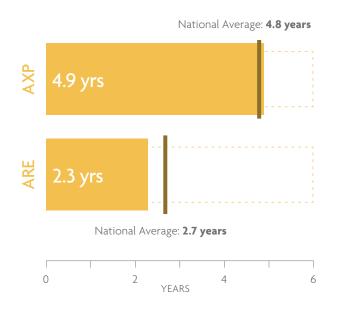


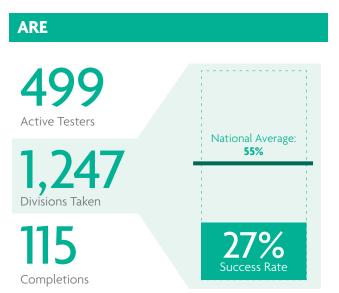
JURISDICTIONS

Wisconsin



COMPLETION TIMELINE





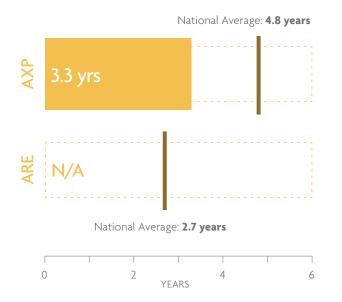


Wyoming

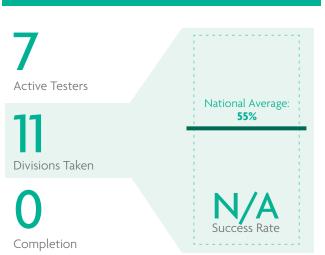




COMPLETION TIMELINE









About This Report

This report is based on data collected by the National Council of Architectural Registration Boards (NCARB) during the 2021 calendar year, providing insight on the path to licensure.

NCARB maintains a database on licensure candidates and Certificate holders. This allows us to track the progression of candidates as they move through the AXP, ARE, and beyond.

Some of the data is self-reported, including age, race and ethnicity, gender, and geographic location. Other data is triggered by candidate actions such as starting the AXP or completing the ARE. NCARB also collects data from the U.S. jurisdictional licensing boards to provide a total count of architects.

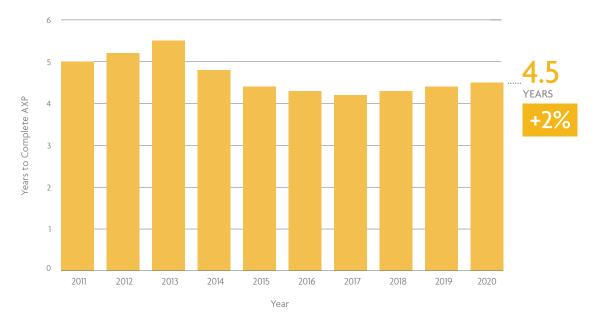
Data from the National Architectural Accrediting Board (NAAB) was also used in this report to provide the number of students entering and graduating from NAAB-accredited programs.

How to Read This Report

To help readers understand the data presented in NCARB by the Numbers, here are some helpful pieces of information to keep in mind.

Reading Charts

Most NCARB by the Numbers charts show a year-over-year comparison of data from NCARB's Record holders. For example, each bar in the chart below shows the average time it took for candidates to complete the experience program in a given year.



The y (or vertical) axis of this chart measures time in years, while the x (or horizontal) axis measures each individual year. Reading this chart, you can see the average licensure candidate who completed the AXP in 2021 took 4.7 years, a slight increase compared to 2020.

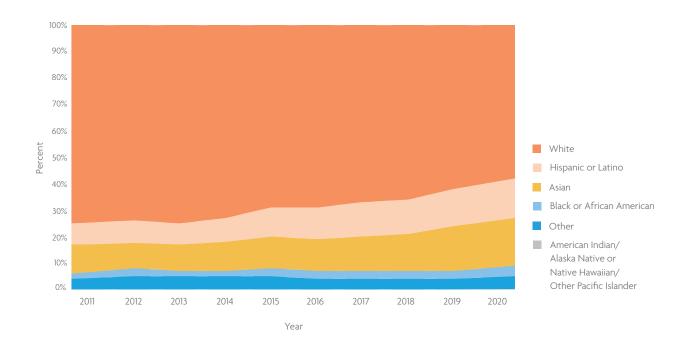
A note about averages: NCARB typically calculates the median, rather than the average or mean. The median provides a more accurate measure, because it better accounts for outliers that skew the overall dataset (like a candidate who take decades to complete a program).

Race and Ethnicity

Throughout this year's report, we segment NCARB Record holder data by a variety of demographic factors, such as race and ethnicity, gender, and age.

This year, NCARB has adjusted how we present data around racial and ethnic diversity to reflect that individuals can identify as more than one race or ethnicity. For this reason, some demographic percentages may add to over 100%.

Individuals who identify their race as either American Indian/Alaskan Native or Native Hawaiian/Pacific Islander make up a fraction of all NCARB customers. For this reason, they are grouped in the individuals of "another group" category.



Percentage Changes vs. Percentage Point Changes

Throughout the 2021 NCARB by the Numbers, we refer to changes in the data as either "percentage point changes" and "percent changes." Percent change measures the rate of change from one number to another (i.e., going from 40,000 to 50,000 is a 25 percent increase). Percentage point changes, on the other hand, measures the numerical difference in percentages (i.e., going from 40 percent to 50 percent is a 10 increase in percentage points).

NCARB typically uses percentage point changes when comparing proportions of different cohorts or groups—for example, when comparing the racial and ethnic makeup of candidates who completed the AXP in 2021 to 2020. Because the number of candidates completing the AXP each year is different, referring to the change in *percentage points* rather than the change in *percent change* allows for a more accurate comparison of the proportion of candidates who identify as people of color each year.

NCARB is constantly updating how we filter and present data in *NCARB by the Numbers* to provide the most accurate information. If you have questions or comments about this year's *NCARB by the Numbers*, please reach out to us at communications@ncarb.org.

About NCARB

NCARB is a global leader in architectural regulation; our members are the architectural licensing boards of the 50 U.S. states, the District of Columbia, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands.

We are dedicated to helping our Member Boards protect the public health, safety, and welfare by recommending and encouraging national requirements for architectural licensure and mobility—including the Architectural Experience Program® (AXP®), Architect Registration Examination® (ARE®), and NCARB Certificate. The Certificate facilitates reciprocal licensure across the United States, Australia, Canada, Mexico, and New Zealand.

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Glossary

Age: Median age based on self-reported dates of birth.

Architect: An individual who is licensed to practice architecture by one of the 55 U.S. jurisdictions.

ARE: The Architect Registration Examination® (ARE®) is a multi-division exam used to assess a candidate's knowledge and skills, and is required for initial licensure in all U.S. jurisdictions.

ARE/Exam Candidate: An NCARB Record holder who is currently taking the ARE.

ARE Completion: This data point is triggered when an exam candidate passes all ARE divisions.

AXP: The Architectural Experience Program® (AXP®) provides a framework to guide licensure candidates through earning and recording professional experience.

AXP Completion: This data point is triggered when a licensure candidate fulfills the AXP's requirements and their Record has been evaluated by NCARB.

Early Eligibility: The ability to take the ARE before completing the AXP. Fifty-two of the 55 jurisdictions currently allow this overlap.

Licensure Candidate: An NCARB Record holder who is actively documenting experience and/or taking the ARE.

NAAB: The National Architectural Accrediting Board (NAAB) accredits U.S. professional programs in architecture. All U.S. jurisdictions accept degrees from NAAB-accredited programs for initial licensure.

New Record: A candidate's successful application for an NCARB Record, which is often the first step on the path to licensure.

NCARB Certificate: A credential available to architects that facilitates reciprocal licensure across U.S. jurisdictions, as well as Australia, Canada, Mexico, and New Zealand.

New Architect: NCARB does not receive reliable data regarding when a candidate first receives their license but estimates that a candidate becomes a new architect after becoming ready for licensure. "New Architects" includes candidates who became ready for licensure in 2020.

NOMA: The National Organization of Minority Architects.

Non-Certified Architect: An architect who does not hold an NCARB Certificate.

Pass Rate: Percentage of division attempts that received a passing score on an ARE division out of the total number of attempts on that division.

People of Color: Individuals who identified their race as American Indian or Alaskan Native; Asian; Black or African American; or Native Hawaiian or Pacific Islander, as well as individuals who indicated they were of Latino or Hispanic descent.

Ready for Licensure: The core requirements for licensure in the United States include gaining an education (typically a degree from a NAAB-accredited program), completing the AXP, and passing the ARE. Some jurisdictions have additional requirements that fall outside this "core," such as a supplemental exam. NCARB considers a candidate ready for licensure when they have completed the core licensure requirements.

Reciprocal License: An architecture license issued by a jurisdiction as a result of the applicant holding an initial license in a separate jurisdiction.

Success Rate: An average of the pass rates for all ARE 5.0 divisions.





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