

# Professional Land Surveying: Then, Now, and Where Are We Headed?

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## Introduction.

The landscape of the licensing requirements for the land surveying profession has changed dramatically over the past decade. In this article, I will take an in-depth look at where the Nevada Legislature has brought us today, current trends of the profession, and the direction our future actions might take us.

Specifically, I will explore:

- The shift that occurred when Nevada Senate Bill No. 103 passed (B.D.R. 54-408).
- The new distinction between land surveying as a “trade” versus a “profession.”
- The results of my nationwide research into current land surveying educational trends and exam rate statistics; and
- The importance of how and why we should invest energy in the land surveying profession’s future.

## The History of Nevada Senate Bill No. 103.

We will start with how and why Nevada Senate Bill No. 103 (SB103) came to fruition. Before SB103 was passed, surveying was not considered a degree-based profession. Rather, it was an apprentice trade. The winds of change began in 1992, with a Florida Supreme Court Decision (*Garden v. Frier* (1992) 602 So.2d 1273) that sought to determine if a land surveyor was a “professional” in relation to Florida’s professional malpractice statute. This case followed an earlier court case (*Pierce v. AALL Insurance Co.* (1988) 531 So.2d 84), which in short said:

*“we hold that a ‘profession’ is any vocation requiring at a minimum a four-year college degree before licensing is possible in Florida. There can be no equivalency exception...a vocation is a profession if any graduate degree is required as a condition of state licensure, without regard to the nature of the undergraduate education.”*

In *Garden v. Frier*, the Florida Supreme Court ruled that land surveying was indeed a trade, as no formal surveying education was required to enter the profession. The Florida Supreme Court’s decision soon led every other state in the nation to review their land surveying licensing requirements. The state of Nevada was no exception.

Let us fast-forward to the Nevada Legislative Session of 1999 and the passage of Senate Bill No. 103 — Committee on Commerce and Labor, Approved June 8, 1999. SB103: The Nevada State Board of Professional Engineers and Land Surveyors’ (BOPE&LS) Bill entitled “An act relating to professionals. This Bill requires applicants for licensure as professional engineers and land surveyors to be graduates of certain curricula approved by the Nevada State Board of Professional Engineers and Land Surveyors, etc.”

The Bill incorporated Senate Amendment No. 581 and Assembly Amendment No. 985 and was signed into effect by Nevada’s Governor on June 6, 1999. Key to SB103 was Section 7, which was not scheduled to go into effect until 2010.

To read the full Bill as it was enrolled, please visit:

[https://www.leg.state.nv.us/Session/70th1999/bills/SB/SB103\\_EN.pdf](https://www.leg.state.nv.us/Session/70th1999/bills/SB/SB103_EN.pdf)

The 1999 Nevada Senate Committee on Commerce and Labor meeting contained some interesting Meeting Minutes dated February 12, 1999. These Meeting Minutes show initial discussions that resulted in what would become the final SB103 language. Below are the positions held by three (3) of the key individuals in attendance.

- Larry L. Spittler**, Lobbyist, American Consulting Engineers Council of Nevada (ACEC/Nevada), read from a prepared testimony stating that ACEC/Nevada could not support the elimination of the experience and testing option for land surveying licensure because it may lead to an artificially induced shortage of licensed land surveyors.
- Senator Raymond C. Shaffer** commented that most land surveyors work beneath engineers. Because many engineering companies had their own land surveyors, this meant that there was typically someone on the record and responsible, therefore protecting the public.
- Rita Lumos**, P.L.S., pointed out that although surveying and engineering were often housed within the same firm, they were separate positions. Thus, the engineer had no authority under the law to oversee land surveying. She also stated the Nevada Association of Land Surveyors had been working towards establishing a degreed program at the University of Nevada, Las Vegas (UNLV), and that there was an existing 2-year program in place at the Community College of Southern

Nevada with 78 students enrolled. Finally, she argued that Nevada's 400 existing licensed surveyors were on a path that required further education. In short, both national and local trends demonstrated a need to keep standards high and move towards a degree-based profession.

Needless to say, the resulting SB103 favored the position of Ms. Lumos, and a trajectory was set in Nevada that would shift land surveying from the realm of trade to the realm of profession.

### **Trade Versus Profession – What Do These Terms Mean?**

A discussion of trade vs. profession should start by defining the terms in question. According to *Black's Law Dictionary*, the term "profession" is defined as a vocation requiring special or advanced education, knowledge, and skill. The labor and skill involved is predominantly mental or intellectual, rather than physical or manual.

In contrast, *Black's Law Dictionary* defines a "tradesman" as a "mechanic, craftsman, or artificer of any kind, whose livelihood depends primarily on the labor of his hands." Further, it defines a trade as a business or industry occupation; a craft or profession.

As you can see, the real difference between a trade and a profession is education. For Nevada to officially move the land surveying profession from the realm of "trade" to that of a "profession," Nevada needed to change state law and require everyone entering the profession to have a bachelor's degree. As mentioned, SB103 passed in 1999, and the education component of this Bill officially went into effect on July 1, 2010.

You can now see that Nevada had devoted over ten (10) years before 2010 fighting to make land surveying a "profession." Nevertheless, there was another battle brewing on Capitol Hill soon after SB103 went into effect. There is no direct correlation between this battle and SB103, but this back-door decision ultimately hurt the land surveying profession's professionalization.

### **Progress Prevented: The 2013 "Laborers and Mechanics" Classification.**

On August 4, 2011, the International Union of Operation Engineers (Local 12) sent a letter to Mr. Timothy J. Helm, Chief, Branch of Government Contracts Enforcement - Division of Enforcement Policy and Procedures Wage and Hour Division (W.H.D.) requesting a meeting to discuss the reclassification of land surveyors within the Davis-Bacon wage determination schedules. This 26-page letter stated that land surveyors should be included as part of the Davis-Bacon Act for wages.

In making their argument, the union members did not provide a favorable evaluation of the land surveying profession. The W.H.D. followed through on Local 12's request, and the Union was successful in reclassifying certain individuals of the land survey crew as "laborers and mechanics" within the W.H.D. However, it should be noted that this reclassification does not apply to licensed professional land surveyors or party chiefs working on the site. The Department of Labor's Wage and Hour Division issued an All Agency Memorandum (AAM-212) on March 22, 2013.

**To understand the delta between the land surveying licensed professional and union field staff surveyors, the IUOE letter argues that:**

#### **a. Educational Requirements.**

*There is no minimum level of formal education required to become a field land surveyor. A GED is sufficient. Acting Solicitor of Labor Harold C. Nystrom's August 31, 1960 letter stating: "[R]odmen, chainmen, axemen (grubbing brush, etc.) stakemen, and the like, clearly perform the work of laborers and do not in fact even approach the educational or other qualifications associated with the true professional."*

#### **b. The Jobs of Office Surveyors and Field Surveyors Are Not the Same.**

*The job of a field survey crew is similar to that of a grade checker: to ensure that the heavy equipment operators dig or fill to the correct depth and in the correct location. The office surveyors determine the depth and location based upon measurements provided by the field surveyors and, in turn, provides field surveyors at the site of the work with the necessary step-by-step instructions concerning grade and elevation. The office surveyors make mathematical calculations and plot the coordinates of the locations that need to be staked, and the field surveyors carry out this work, bringing errors and issues to the attention of the project manager, registered engineer, or licensed office surveyor.*

Additionally, the IUOE Letter, page 19 states:

#### **c. Field Surveyors Are Clearly Not "Professional," "Semiprofessional," or "Subprofessional."**

*In the Davis-Bacon context, the W.H.D. issued an opinion letter characterizing work as "subprofessional" and "semiprofessional" as a justification for failing to extend coverage to skilled tradespersons. Under this view, a field surveyor is clearly not a professional—nor*

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even a “subprofessional” or “semiprofessional.” There is no requirement that field surveyors be licensed, obtain a certification, or earn a college degree or even a high school diploma.

Thus the framework was laid out for compensating some members of a land survey crew as simple laborers and mechanics—a move separate from but in direct competition to the SB103 movement that sought to solidify land surveying as a profession.

In January 2015, NSPS Federal Lobbyist John “J.B.” Byrd published an article on the XYHT website. In the article, he argued persuasively against the Local 12 Letter and the AAM 212 Memorandum. Byrd stated in no uncertain terms that the surveying community was facing the most serious threat to its professional image in decades. The U.S. Department of Labor—without consultation with the community, public notice, or opportunity for public comment—had issued the Order on March 22, 2013, declaring that members of survey crews are “laborers and mechanics” subject to the controversial Davis-Bacon Act. The Order reversed more than 50 years of policy that, since President John F. Kennedy’s administration, had largely exempted survey crews from the Davis-Bacon Act.

NSPS has strongly objected to the U.S. Department of Labor’s classification of members of land survey crews as laborers and mechanics, stating it is “an affront to the surveying profession” and “detrimental to our profession and an inappropriate demotion of valued and skilled employees.”

Much time and effort have been expended in attempting to reverse the 2013 W.H.D. decision. There have been nine (9) Opinion Letters issued from 1960–1964 listing several examples of the physical work performed by land surveying crews. However, there have also been six (6) W.H.D. Opinion Letters from 1975 to the present that demonstrate a failure to understand the 1960–1964 Opinion Letters from the U.S. Secretary of Labor and the U.S. Solicitor of Labor.

NSPS has not given up on their fight yet. Curtis W. Sumner (Executive Director at NSPS) testified before Congress on June 18, 2013. More recently, on September 8, 2020, NSPS sent a letter to The Honorable James Comer, Ranking Member for the United States House Committee on Oversight and Reform, urging his oversight and investigation into the applicability of Davis-Bacon labor standards to members of land surveying crews.

In a September 8, 2020 letter, Mr. Sumner held that the memorandum “provides no rationale for this change in policy, cites no recent

legislation, and references no court case to explain the basis of this new policy. There has been no action by Congress, no ruling by a court, and no other recent development to change a 50+ year policy. Moreover, this change in policy was made with no public notice, no public comment, no consultation with affected stakeholders, no economic or regulatory impact analysis, and no study of its effect on small businesses.”

Nevada State as of 10/27/2020				New - Land Surveyors By Year	Total:	In State Surveyors	Non-Resident Surveyors
Age Range	Total Active PLS	In State Surveyors	Non-Resident Surveyors				
Nevada could theoretically lose 120 +/- In-State Land Surveyors with an age 61 and older = 42.2% over the next 10 years. However, for comparison Nevada has only awarded 46 new In State licenses in the last 10 years.				2000	21	0	0
				2001	16	0	0
				2002	18	0	0
				2003	11	0	0
				2004	34	0	0
21-25	1	0	1	2005	31	0	0
26-30	1	0	1	2006	27	0	0
31-35	10	3	7	2007	33	0	0
36-40	31	9	22	2008	43	0	0
41-45	60	25	35	2009	47	0	0
46-50	85	35	50	*2010*	*52*	*14*	*38*
51-55	80	40	40	2011	19	9	10
56-60	109	52	57	2012	17	3	14
61-65	120	49	71	2013	13	7	6
66-70	92	35	57	2014	9	1	8
71-75	52	26	26	2015	13	2	11
76-80	18	4	14	2016	18	0	18
81-85	9	5	4	2017	13	2	11
86-90	1	1	0	2018	14	1	13
91-95	0	0	0	2019	24	5	19
				2020	18	2	16
Total:	669	284	385	Total:	439	32	126

It goes without saying that Nevada has taken all the right steps to solidify land surveying’s place as a professional career. However, as with most change, it rarely comes easy. Today, we remain faced with defending ourselves against the 2013 issuance of AAM212. In contrast, there is no legal change to the victory of SB103, the W.H.D. consideration of land surveying as being the domain of “laborers and mechanics” is disheartening and could open the door to the profession’s deregulation.

To review the letters referenced above and stay up-to-date with the Davis-Bacon decision, visit the NSPS website: <https://www.nsp.us.com/general/custom.asp?page=DavisBacon>



## 2020 Education and Licensing Trends.

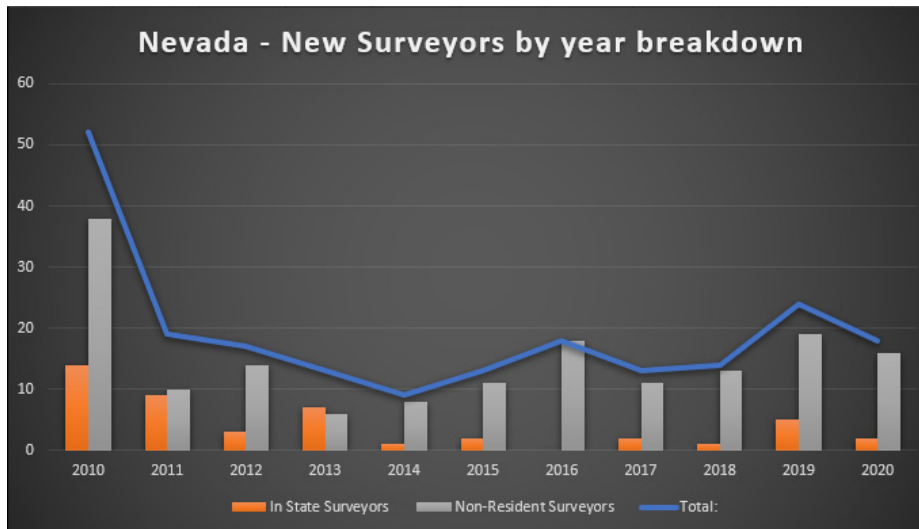
We now know that in 2010 new educational requirements were implemented for all individuals entering the land surveying profession here in Nevada. The question is, what has changed since then? The answer is that we are about to see a dramatic reduction in licensed land surveying personnel in the coming years unless action is taken to attract and nurture new surveying professionals.

To find this answer, I conducted an in-depth national investigation to determine how Nevada has fared since the 2010 implementation of SB103 Section 7 and the trends in other states that adopted similar measures. This meant examining data from all states that publicly provide their existing licensing data.

The first data point to review was the number of licenses awarded to college-educated surveyors from the ten years before SB103 went into effect (2000–2010). The data revealed that there was already an educated applicant base here in Nevada before SB103 went

into effect. 53% of those applying had some type of college education and could therefore be considered professionals. 47% of those applying did not have a college education and could therefore be regarded as tradesmen.

The second data point to review was the number of new licenses awarded during the most recent ten years (2010–2020). In total, I wanted to look at both the ten years preceding the degree requirement and the ten years following the degree requirement set forth by SB103. Below are the numbers for all licenses for both “In-State” and “Out of State” land surveyors. As you can see from the Tables below, there was a big push in 2010 for licensees trying to beat the July 1, 2010, effective date for SB103.



### a. An Aging Workforce.

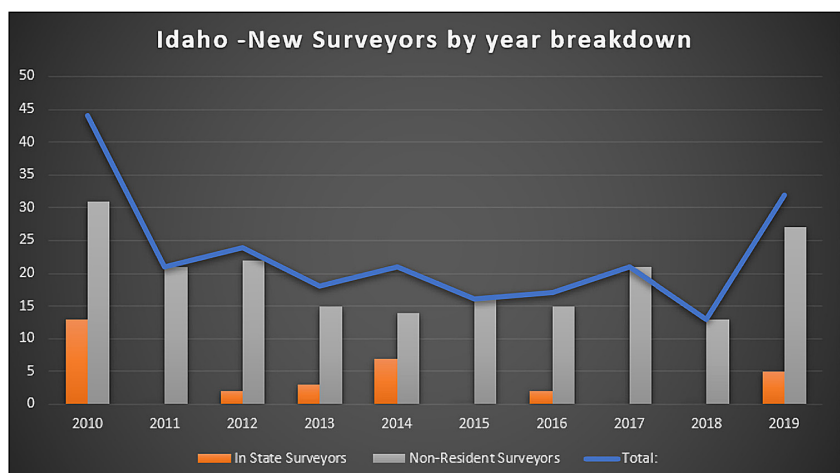
It is shocking is when you put the trend of these data points into context. Nevada could theoretically lose 120 “In-State” land surveyors aged 61+ over the next ten years if current trends continue. That is the equivalent of 42.2% of all currently licensed surveyors. In comparison, Nevada has only awarded 32 new “In-State” licenses in the last ten years. This means that Nevada will potentially lose a net of 88 or more land surveyors in the next ten years.

It quickly becomes apparent that land surveying is an aging profession needing an infusion of new members. The data in the following tables illustrate that Nevada is not a unique state in this regard. From California to Florida and almost everywhere in between, the number of anticipated new professionals cannot hope to replace the number of surveyors expected to retire.

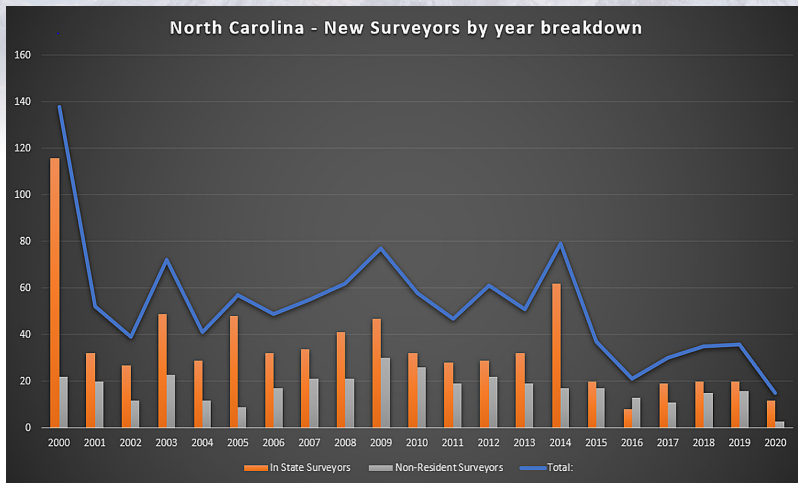
The following data sets are all compared with anyone over the age of 61 that may retire in the next ten years.

Idaho could theoretically lose 102 “In-state” land surveyors aged 61+ over the next ten years. That is the equivalent to 39.3% of all currently licensed land surveyors. In comparison, Idaho has only awarded 32 new licenses in the last ten years.

- **Education Requirements:**  
Effective on July 1, 2010, all P.L.S. applicants must have a 4-year degree either in surveying or related science plus 30-semester credits of surveying courses.



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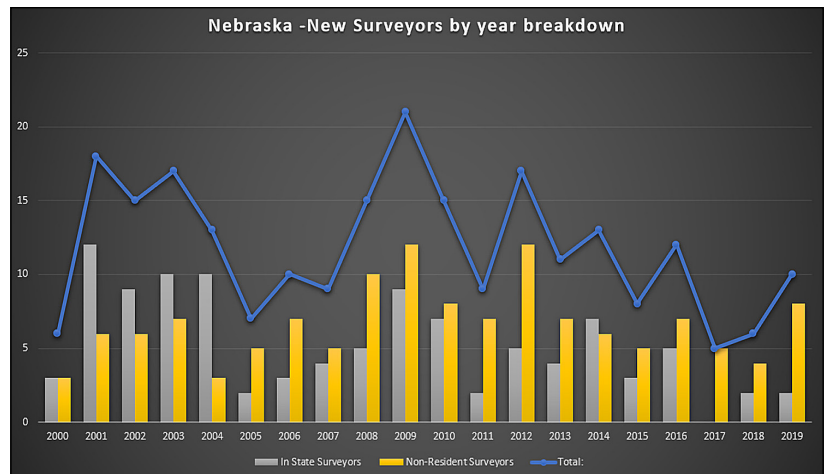


North Carolina could theoretically lose 787 in-state land surveyors aged 61+ over the next ten years. That is the equivalent of 43.9% of all currently licensed land surveyors. In comparison, North Carolina has only awarded 250 new licenses in the last ten years.

- **Education Requirements:**  
Effective on January 1, 2013, all P.L.S. applicants must have a Bachelor of Science degree in surveying or other equivalent curricula.

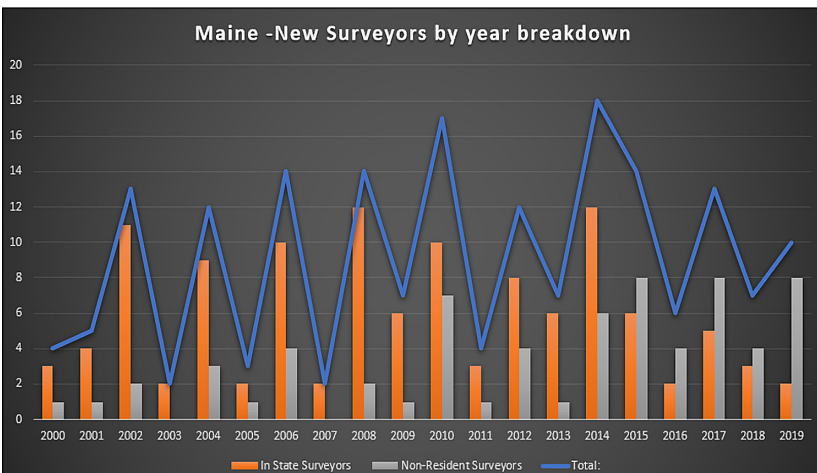
Nebraska could theoretically lose 77 in-state land surveyors aged 61+ over the next ten years. That is the equivalent of 38.1% of all currently licensed land surveyors. In comparison, Nebraska has only awarded 37 new licenses in the last ten years.

- No Education requirements.



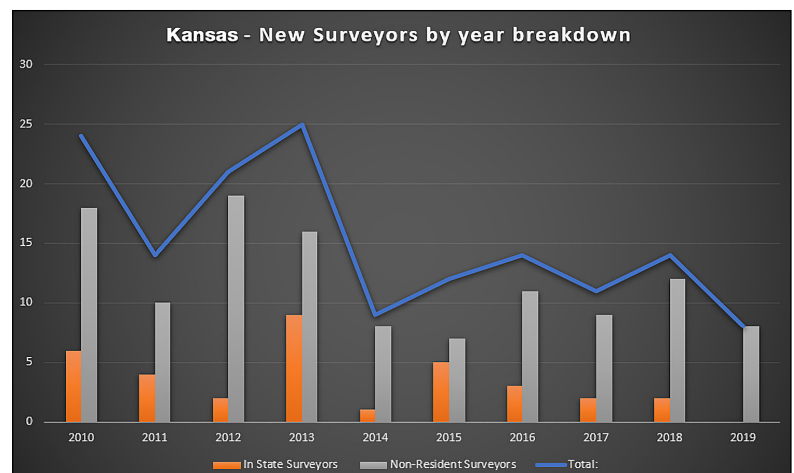
Maine could theoretically lose 188 in-state land surveyors aged 61+ over the next ten years. That is the equivalent to 37.8% of all currently licensed land surveyors. In comparison, Maine has only awarded 57 new licenses in the last ten years.

- **Education Requirements:**  
There are four ways to get a license in Maine. Either with education, four (4) years bachelor's degree and no experience or no education, and seven (7) years experience.

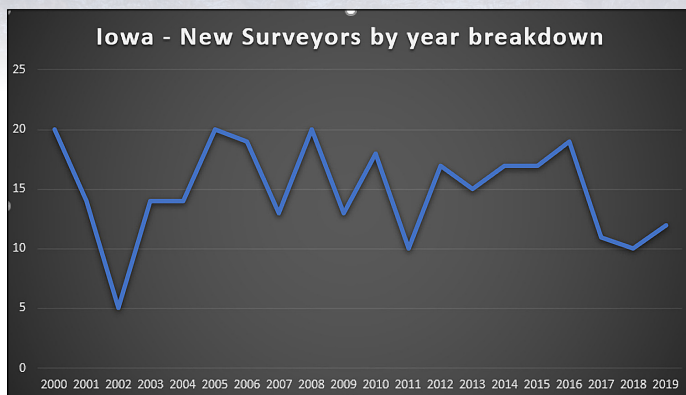


Kansas could theoretically lose 174 in-state land surveyors aged 61+ over the next ten years. That is the equivalent of 55.4% of all currently licensed land surveyors. In comparison, Kansas has only awarded 34 new licenses in the last ten years.

- **Education Requirements:**  
graduation from a four-year surveying baccalaureate curriculum accredited by (ABET); implementing K.S.A. 2013 Supp. 74-7022, as amended by 2014 SB 349, sec. 15

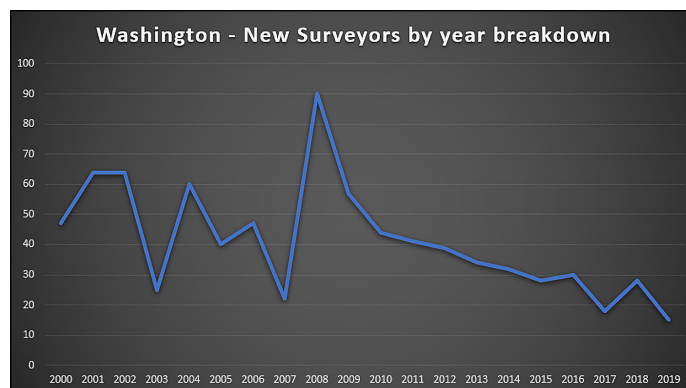


The following data sets are for information about the entire state (both In-State and Out-of-State Surveyors).



Iowa could theoretically lose a total of 163 in-state land surveyors aged 61+ over the next ten years. That is the equivalent of 35.9% of all currently licensed land surveyors. In comparison, Iowa has only awarded 146 new licenses in the last ten years.

Washington could theoretically lose a total of 407 in-state land surveyors aged 61+ over the next ten years. That is the equivalent of 40.1% of all currently licensed land surveyors. In comparison, Washington has only awarded 309 new licenses in the last ten years.



The number of new licenses issued by the states to "In-State" land surveyors versus the number of licenses issued to "Out-of-State" land surveyors is drastically different. When you look at the number of land surveyors combined in the two totals above from Washington and Iowa, the "Net" number is not alarming because we have added the reciprocity numbers to the data sets.

A few other notable data sets from other states continue to show a downward trend. These states did not provide a full data set, so I could not thoroughly compare the data. However, I feel the data gives an accurate representation surrounding the numbers of in-state land surveyors.

- South Carolina could lose 379 +/- In-State Land Surveyors with an age of 61 and older (40.1%) over the next ten (10) years. However, for comparison, South Carolina has only awarded 299 new In-State licenses in the last twenty (20) years.
- Florida could lose 1,297 surveyors (50.12%) over the next ten (10) years. However, for comparison, Florida has only licensed 1,292 in the last twenty (20) years.
- Montana could lose 79 +/- In-State Land Surveyors with an age of 61 and older (35.9%) over the next ten (10) years. However, for comparison, Montana has only awarded 53 new In-State licenses in the last ten (10) years.
- New Mexico has more Out of State Land Surveyors (300) than In-State Land Surveyors (250).
- Wyoming has more Out of State Land Surveyors (196) than In-State Land Surveyors (148).
- Arizona is very close in numbers for both In-State Land Surveyors (914) and Out of State Land Surveyors (712). There was no age data provided; however, Arizona did say they have licensed 797 land surveyors in the last twenty (20) years. They have about 524 licenses that either retired, canceled, expired, etc., since 2000. However, of the 797, I was not provided a split on In-State versus Out-of-State land surveyors.

The real data is found in the primary home state, where the land surveyor practices. For example, I am personally licensed in five (5) states. Another land surveyor in my office is licensed in seven (7) states. Our main work focus is Nevada; however, we have 12 licenses between us. Add our colleague Steve Parrish, P.L.S., to the mix, and suddenly we have 22 licenses between just three (3) land surveyors. Now there are roughly 50,000 licenses in the United States, but what is the real number? The fact that the number of national licensees remains steady over time could be misleading, as many surveyors have earned multiple state licensures.

#### **Average Age at Licensure.**

One additional point that should be made is the exceedingly long time for the average land surveyor to obtain a professional license in the United States. In Nevada, the average age of an individual obtaining their Professional Licensure is 42 years old. According to the data in the 2019 NCEES Squared Report, national trends follow suit. The average age of individuals taking The Principles and Practice of Surveying (P.S.) exam is just under 39 years old. In comparison, the national average of individuals taking The Fundamentals of Surveying (F.S.) exam is just over 34 years old.

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The fact that it takes a minimum of 8-10 years to become a professional land surveyor in most states is problematic. In some cases, it will take you longer to become a professional land surveyor than it will to become a dentist! We need to explore ways to help expedite this process to get young surveyors started on their professional journeys much sooner in their careers.

### **College Enrollment Trends and Licensure Examinations.**

In terms of what is happening at college campuses, enrollments have been relatively steady. Most programs graduate five (5) or six (6) students per year. The most recent National Council of Examiners for Engineering and Surveying (NCEES) report shows some interesting trends.

First-time exam takers of The Fundamentals of Surveying (F.S.) are going up, with a 40% increase in first-time exam takers between 2015 and 2019. As a refresher, the F.S. exam is designed for recent college graduates and college students who are close to completing an undergraduate degree in surveying. Passing this exam is an essential first step in the surveying licensure process. The roughly six-hour computer-based exam is comprised of 110 questions and is administered year-round.

However, first-time exam takers of The Principles and Practice of Surveying (P.S.) are going down, with 15% fewer exam takers than in 2015. The P.S. exam is designed for surveyors who have gained at least four (4) years of work experience in their respective field. It is an eight-hour computer-based exam.

NCEES seeks to address this downward trend by focusing on recruitment in the geomatics profession. With a coalition of interested parties, NCEES is formally focused on the surveying profession's needs by enhancing current efforts nationwide. These new opportunities to bring recruitment, education, and diversity to the surveying profession work are carried out in tandem with NCEES goals, which are to promote the value of licensure and increase the number of people entering the surveying workforce. In July 2020, Marisa Trzemzalski became a member of the NCEES Public Affairs team. At NCEES, Marisa works closely with Surveying Candidate Objectives for Recruitment and Education (SCORE) partners on surveying marketing and outreach projects. She coordinates NCEES surveying marketing activities through print and digital advertising, exhibitions, and sponsored collaborations. She is also responsible for marketing NCEES services, promoting the value of licensure in surveying, and coordinating K-12 surveying outreach events.

### **Investing in Our Profession's Future.**

Land surveying has undoubtedly come a long way over the years. Surveyors today can work with technologies that those before us could only have dreamed of. This is not to suggest that today's land surveyors are better or more experienced than those of the past. We merely have a more advanced set of tools allowing us to create more accurate results.

The advancement of technologies comes with a price. We now need the higher educated and more advanced workforce to complete the everyday tasks of creating a boundary survey or running the advanced software to make the 3D Building Information Modeling (BIM). We need to pursue this goal of professionalization while simultaneously combatting the effects of an aging workforce and jumpstart a new generation of young surveyors on the road to licensure.

Listed below are some first thoughts on revitalizing the land surveying profession and better preparing for the years ahead.

#### **a. Invest in STEM (Science, Technology, Engineering, and Math) Education.**

1. Work with your local technical high schools.
2. Identify the Work-Based Learning Coordinators for each school district.
3. Promote the Get Kids Into Survey initiative and become a Brand Ambassador.
4. Continue to teach the Surveying Merit Badge contents to the Boy Scouts and the STEM Badges to the Girl Scouts.
5. *"rapid growth will require a large, steady and incredibly capable workforce with an eye for innovation. By investing in STEM education opportunities and promoting its importance to the younger generation now, the engineering \*surveying added\* industry will have a better chance of closing the skills gap in the future, which will aid in attracting and retaining the talent the industry needs."*

-Yvonne Garcia Thomas, Now is the time to invest in the next generation of engineers, San Antonio Business, September 24, 2020

#### **b. Commit to Diversity.**

1. It is clear that the land surveying profession remains critical and would benefit from attracting new and diverse members. The statistics mentioned above also reveal the sobering fact that, out of all 669 active P.L.S.'s in Nevada,

only 14 are female. That is correct; only 2% of our current surveyors are women.

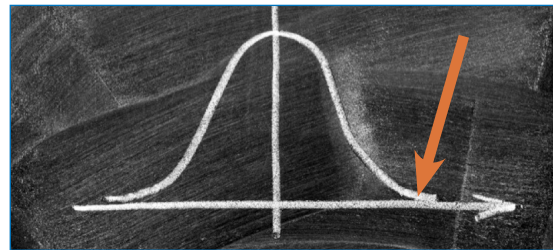
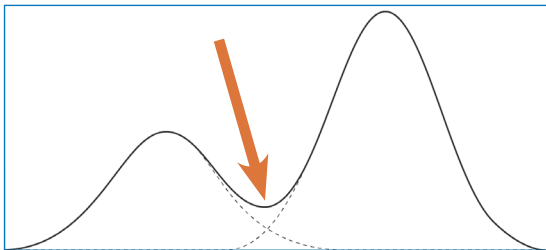
2. *Despite efforts to close the gender gap, women and girls remain underrepresented in STEM fields and in college STEM programs. While women make up half of the college-educated labor pool in the United States, they only account for 29 percent of the STEM workforce. The United States Bureau of Labor Statistics also confirms that African Americans, Latinos, and Native Americans are underrepresented in the engineering industry, where they represent only 22 percent of the workforce.*

--Yvonne Garcia Thomas, Now is the time to invest in the next generation of engineers, San Antonio Business September 24, 2020

**c. Provide Mentorship.**

1. There is a growing need for industry mentorship opportunities, both in the profession and associations. I recently started Mentoring Mondays for the Land Surveying Profession, a weekly meeting room via Zoom for surveyors of all ages.
3. Create "Career Ambassadors" like the current program in North Carolina. I would like to see NSPS create a "school/training" for every Career Ambassador from across the country to learn about land surveying, learn how to present, and what tools to bring to a career fair or class presentation. One voice for all of us to preach.
4. Ensure we have a very active NSPS -Young Surveyors Network in your home state and nationally. I feel like the young surveyors could be the ones up in front of the class or the career fairs, bringing the energy and excitement we need to show off our best tools!

Suppose we can embrace the type of initiatives described above and successfully promote and market the land surveying profession. In that case, I feel there is real hope that we can pull the profession out of this "sag" point of what I hope is a Bimodal Curve. If we do not make any meaningful changes and simply rely on trends to correct themselves, we may well end up in the bell curve's asymptotic tail. Together, we can reflect on the long and storied history of land surveying and take the steps needed to influence our profession's future.



In an upcoming edition next year, I will follow up with another article that will provide an in-depth look at The Surveying Candidate Objectives for Recruitment and Education (SCORE) initiative, which is a regional pilot program to promote the geomatics profession. SCORE was devised by a coalition of surveying societies including the National Society of Professional Surveyors, Maryland Society of Surveyors, North Carolina Society of Surveyors, Surveying and Mapping Society of Georgia, Tennessee Association of Professional Surveyors, and Virginia Association of Surveyors. These organizations are working together to address recruitment in the geomatics profession—such as the recruitment of women and racial minorities, who are underrepresented in the field—as well as engineers who may become dual licensees. In so doing, we can strengthen licensed professional representation in an evolving geospatial world. The coalition requested funding from NCEES to support the study and implementation of recruiting, marketing, and public relations strategies for the geomatics profession.

The NCEES board of directors fully supported the aims of the project and saw the need for this initiative not just on a regional level but also on a national level. Therefore, the board wanted NCEES to have more direct involvement and approved the development of a national marketing program to increase the number of licensed professionals in the geomatics field and for NCEES staff to work in conjunction with the National Society of Professional Surveyors and the coalition of state surveying societies to support the initiative.



**About the Author:** *Trent Keenan, PLS., W.R.S., CFedS. Trent's surveying career started when he was 19 and now spans over twenty-five (25) years, including ten (10) years in the public sector working for a large utility company, and fifteen (15) years in the private sector, with 12 of the 15 years being the President / Founder of Diamondback Land Surveying. He has served through all officers positions of both the Southern Chapter and State Association of NALS (Nevada Association of Land Surveyors), received the Meritorious Service Award for NALS in 2013, and was honored as the NALS Surveyor of the Year (2015). He is a past-President of NALS (2015), Current, Editor of The Nevada Traverse Publication (NALS), Current WestFed (The Western Federation of Professional Surveyors) Director from NALS, Current Director on The Nevada Land Surveyors Education Foundation Board (NLSEF), Current Director on the Southern Nevada Chapter of the NALS, Moderator/ Facilitator/ Founder of Mentoring Mondays for the Land Surveying Profession, and a proud sponsor and brand ambassador for Get Kids Into Survey (GKiS). He is currently licensed in 5 Western States (Arizona, California, Nevada, Utah & Washington). He is also a Certified Federal Surveyor and a Nevada Water Rights Surveyor. He has been an active board member in NALS since 2007 and a regular member since 1997.*

