Behavior Analysis is a Distinct Discipline Provided by the Association for Professional Behavior Analysts (APBA)

Summary: Although techniques of behavior analysis are widely practiced, including by psychologists and educators, behavior analysis is not a subdomain of any other discipline, but is a distinct discipline unto itself. This brief includes summaries of the professional landscape in behavior analysis that support this assertion.

DEFINITION

Behavior analysis is the science of behavior, with a history extending back to the early 20th century. Its guiding philosophy is behaviorism, which is based on the premise that attempts to improve the human condition through behavior change (e.g., education, behavioral health treatment) will be most effective if behavior itself is the primary focus. To date, behavior-analytic scientists have conducted thousands of studies to identify the laws of behavior—the predictable ways in which behavior is learned and how it changes over time. The underlying theme of much of this work has been that behavior is a product of its circumstances, particularly the events that immediately follow the behavior. Behavior analysts have used this information to develop numerous techniques and treatment approaches for analyzing and changing behavior, and ultimately, to improve lives. Because this approach, applied behavior analysis (ABA), is largely based on behavior and its consequences, techniques generally involve teaching individuals more effective ways of behaving and working to change the social consequences of existing behavior. Treatment approaches based on ABA have been empirically shown to be effective in a wide variety of areas. However, because ABA was first applied to the treatment of individuals with intellectual disabilities and autism, this practice area has the largest research base and has received the most recognition. Additional information on the various applications of ABA can be found here.

UNIVERSITY TRAINING

There are hundreds of <u>university training programs</u> in behavior analysis. Because behavior analysis can be effectively applied to such a variety of human concerns, these programs are offered in a variety of academic locations, including departments/colleges of education (the most common location), psychology, behavior analysis, among others.

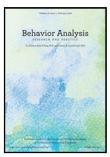
ACADEMIC LITERATURE

Since the mid-20th century, behavior analysis has had its own distinct scientific and professional literatures. There are over a dozen peer-reviewed journals devoted to behavior-analytic content. Here is a sample:









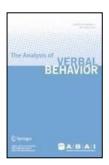






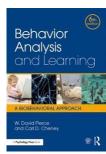


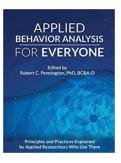




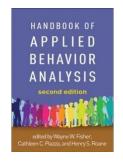
In addition, there are dozens of textbooks and practical handbooks devoted exclusively to behavior analysis. Here is a sample:



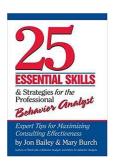


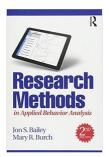


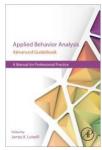


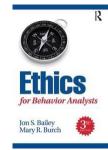








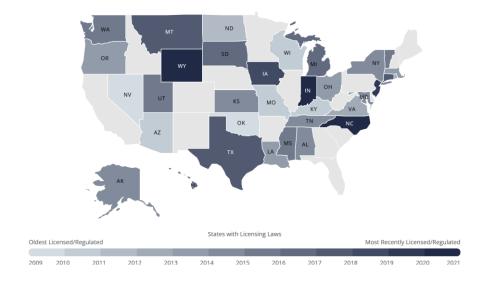






LICENSURE & FUNDING

Since 2009, <u>34 states</u> have enacted legislation to license behavior analysts as independent practitioners. The most common licensing authority among these regulatory systems is a stand-alone behavior analyst licensing board or committee.



CPT Codes

Current Procedural Terminology (CPT) codes, published by the American Medical Association (AMA), are the predominant codes used to describe healthcare procedures for reimbursement purposes. In 2014, the AMA approved the first distinct codes for applied behavior analysis services (CPT III codes 0359T-0374T). In 2019, the AMA published a revised and expanded code set for applied behavior analysis services (CPT I codes 97151-97158, CPT III codes 0362T and 0373T). Additional information on these codes is available through the <u>ABA</u> Coding Coalition.

NPI Codes

The <u>National Provider Identifier Database</u> (NPID), operated by the Centers for Medicare & Medicaid Services, issues healthcare providers a unique 10-digit number to be used in billing-related activity. This unique number has essentially come to function as a "social security number" for healthcare providers. In addition, NPID categorizes each healthcare provider into a distinct professional class. *Behavior analysts* (103K00000X) and *assistant behavior analysts* (106E00000X) have unique codes in the NPID that are distinct from those of other behavioral health professions – for example, psychologists (103T00000X).

SCOPE OF PRACTICE

The scopes of practice in most licensure laws were influenced by the <u>APBA Model Behavior Analyst Licensure</u> <u>Act</u>, which includes the following model scope:

The design, implementation, and evaluation of instructional and environmental modifications to produce socially significant improvements in human behavior. The practice of applied behavior analysis includes the empirical identification of functional relations between behavior and environmental factors, known as functional assessment and analysis. Applied behavior analysis interventions are based on scientific research and direct and indirect observation and measurement of behavior and environment. They utilize contextual factors, motivating operations, antecedent stimuli, positive reinforcement, and other procedures to help individuals develop new behaviors, increase or decrease existing behaviors, and emit behaviors under specific environmental conditions. The practice of applied behavior analysis excludes diagnosis of disorders, psychological testing, psychotherapy, cognitive therapy, psychoanalysis, and counseling.

Scopes of practice included in licensure statutes describe the range of activities that members of a profession may legally perform within the state. However, the core knowledge, skills, and abilities required to practice a profession are actually first determined using a process referred to as a job task analysis. These are extensive efforts that involve panels of subject matter experts and large-scale surveys of a profession's members. The resulting document, referred to as a <u>task list</u>, serves as a basis for the <u>examination</u> required for entry into the profession. All healthcare and behavioral health professions undergo this process. The task list for behavior analysis contains virtually no overlap with those of other professions, including psychology, social work, occupational therapy, etc. In addition to a distinct task list and professional examinations, behavior analysts also have their <u>ethics code</u>.

The Seven Dimensions of Applied Behavior Analysis

Baer, D.M., Wolf, M.M., & Risley, T.R. (1968) Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1 91-97

The seven dimensions of Applied Behavior Analysis were provided by Baer, Wolf, and Risley in 1968. These 7 dimensions should all be included in individualized assessment and treatment in applied behavior analytic practice. These seven dimensions and their application are a hallmark in the education and training of behavior analysts.

7 Dimensions that differentiate the practice of behavior analysts from other professions:

- **Applied** addresses behaviors that are important to the client and his/her significant others.
- **Behavioral** focuses on the client behavior(s) in need of improvement and direct measurement of those behaviors (as opposed to measuring the behavior of others who interact with the client, measuring client behavior indirectly by asking others about it, etc.).
- **Analytical** consistently produces change in a measured aspect of the target behavior(s) when the intervention is in place vs. when it is not.
- **Technological** described with sufficient detail and clarity that a reader has a reasonable chance of replicating the intervention.
- **Conceptually systematic** grounded in the conceptualization that behavior is a function of environmental events and described in terms of behavior analytic principles.
- **Effective** improves target behaviors to a practical degree.
- Generalized produces changes in target behaviors that last over time, occur in situations other than
 those in which the interventions were implemented initially, and/or spread to behaviors that were not
 treated directly.

BCBA Elligibilty Pathways

https://www.bacb.com/wp-content/uploads/2022/01/BCBAHandbook_220415.pdf

Pathway 1:

Pathway 1: Degree From Association for Behavior Analysis International (ABAI) Accredited or Recognized Program

To apply for BCBA certification via this pathway, you must have a degree from an <u>ABAI-accredited</u> or ABAI-recognized behavior analysis master's or doctoral degree program (<u>ABAI Tier 1, 2a, or 2b</u>) and have completed supervised fieldwork.



Degree

You must have obtained a master's or doctoral degree in 2015 or later, **and** the degree must have been obtained while the program was <u>accredited</u> or recognized by <u>ABA under Tier 1, 2a, or 2b</u>. For example, your degree would meet the degree requirement if you received your master's or doctoral degree in 2018 from a program that was accredited from 2016 to 2022.

	Overview of Fieldwork Require	ements	
	Supervised Fieldwork	Concentrated Supervised Fieldwork	
Fieldwork hours required to qualify	2,000	1,500	
Supervisor qualifications (see the Supervised Fieldwork Requirements section for additional supervisor requirements)	Supervisors must be one of the following:		
	an active BCBA without current disciplinary sanctions who has been certified for at least one year and meets an ongoing supervision CEU requirement;		
	 an active BCBA without current disciplinary sanctions who has been certified for less than one year and is receiving consultation on a monthly basis from a qualified consulting supervisor; 		
	a licensed or registered psychologist certified by the American Board of Professional Psychology in <u>Behavioral and Cognitive Psychology</u> who was tested in applied behavior analysis; OR		
	an authorized Verified Course Sequence Instructor.		
Supervision hours per supervisory period	5% of hours	10% of hours	

Pathway 2:

Pathway 2: Behavior-Analytic Coursework

To apply for BCBA certification via this pathway, you must have an acceptable graduate degree from a <u>qualifying institution</u>, have completed acceptable graduate coursework in behavior analysis, and have completed supervised fieldwork.



Degree

You must have a master's degree or higher from a <u>qualifying institution</u>. Any degree earned outside of the United States, Canada, Australia, or United Kingdom must undergo a <u>degree equivalency evaluation</u> to demonstrate that it is equivalent to a US master's degree or higher.

Coursework Content Requirements		
Content Areas	Hours*	
BACB Ethics Code and Code-Enforcement System; Professionalism Note: The content must be taught in one or more freestanding courses.	45 hrs	
Philosophical Underpinnings; Concepts & Principles <i>Note</i> : 45 hours must be taught as one freestanding course on concepts and principles.		
Measurement, Data Display, and Interpretation; Experimental Design Note: The content must be taught in one freestanding course.		
Behavior Assessment	45 hrs	
Behavior-Change Procedures; Selecting and Implementing Interventions		
Personnel Supervision and Management		
Total	315 hrs	

	Overview of Fieldwork Requ	uirements	
	Supervised Fieldwork	Concentrated Supervised Fieldwork	
Fieldwork hours required to qualify	2,000	1,500	
Supervisor qualifications (see the Supervised Fieldwork Requirements section for additional supervisor requirements)	an active BCBA without current disciplinary sanctions who has been certified for less than on year and is receiving consultation on a monthly basis from a qualified consulting supervisor; a licensed or registered psychologist certified by the American Board of Professional		
Supervision hours per supervisory period	5% of hours	10% of hours	

Pathway 3:

Pathway 3: Faculty Teaching and Research

To apply for BCBA certification via this pathway, you must have an acceptable graduate degree from a <u>qualifying institution</u>, have held a full-time faculty position in behavior analysis that includes research and teaching, and have completed supervised fieldwork.



Degree

You must have a master's degree or higher from a <u>qualifying institution</u>. Any degree earned outside of the United States, Canada, Australia, or United Kingdom must undergo a <u>degree equivalency evaluation</u> to demonstrate that it is equivalent to a US master's degree or higher.

Overview of Fieldwork Requirements			
	Supervised Fieldwork	Concentrated Supervised Fieldwork	
Fieldwork hours required to qualify	2,000	1,500	
Supervisor qualifications (see the Supervised Fieldwork Requirements section for additional supervisor requirements)	Supervisors must be one of the following:		
	an active BCBA without current disciplinary sanctions who has been certified for at least one year and meets an ongoing supervision CEU requirement;		
	 an active BCBA without current disciplinary sanctions who has been certified for less than one year and is <u>receiving consultation on a monthly basis from a qualified</u> <u>consulting supervisor</u>; 		
	 a licensed or registered psychologist certified by the American Board of Professional Psychology in <u>Behavioral and Cognitive Psychology</u> who was tested in applied behavior analysis; OR 		
	an authorized Verified Course Sequence Instructor.		
Supervision hours per supervisory period	5% of hours	10% of hours	

Pathway 4:

Pathway 4: Postdoctoral Experience

To apply for BCBA certification via this pathway, you must have an acceptable doctoral degree from a <u>qualifying institution</u> that was conferred at least 10 years ago, have completed at least 10 years of postdoctoral practical experience, and have completed 500 hours of supervised fieldwork.



Doctoral Degree

You must have a doctoral degree from a <u>qualifying institution</u>. Any degree earned outside of the United States, Canada, Australia, or United Kingdom must undergo a <u>degree equivalency evaluation</u> to demonstrate that it is equivalent to a US doctoral degree.

Overview of Fieldwork Requirements		
Supervised Fieldwork		
Fieldwork hours required to qualify	500	
Supervisor qualifications (see the <u>Supervised</u> Fieldwork Requirements section for additional supervisor requirements)	Supervisors must be one of the following:	
	an active BCBA without current disciplinary sanctions who has been certified for at least one year and meets an <u>ongoing supervision CEU requirement;</u>	
	an active BCBA without current disciplinary sanctions who has been certified for less than one year and is receiving consultation on a monthly basis from a qualified consulting supervisor;	
	 a licensed or registered psychologist certified by the American Board of Professional Psychology in <u>Behavioral and Cognitive Psychology</u> who was tested in applied behavior analysis; OR 	
	an authorized Verified Course Sequence Instructor.	
Supervision hours per supervisory period	5% of hours	

Changes to BCBA Elligibilty - 2032

https://www.bacb.com/upcoming-changes/

Effective Date	Area	Change	Newsletter
			January 2017
	BCBA and BCaBA Requirements	Revisions to certification requirements, including degree, coursework, fieldwork, ethics, and examinations	<u>October 2017</u>
January 1, 2022			October 2018
Sandary 1, 2022			December 2020
	RBT Ethics Requirements	Revisions to RBT ethics requirements	<u>July 2021</u>
January 1, 2024	BCBA and BCaBA Coursework Expiration Policy	A rolling 10-year expiration date will be placed on coursework submitted as part of a BCBA or BCaBA certification application	March 2022
January 1, 2025	BCBA Examinations	The BCBA examination will be based on the BCBA Test Content Outline (6th ed.)	February 2022
January 1, 2025	BCaBA Examinations	The BCaBA examination will be based on the BCaBA Test Content Outline (6th ed.)	February 2022
January 1, 2026	January 1, 2026 BCaBA Eligibility and Maintenance Requirements Revisions to core certification requirements, including degree, coursework, supervised fieldwork, continuing education, and ongoing supervision		<u>March 2022</u>
January 1, 2032	BCBA Eligibility Pathways	Pathway 1, which requires a degree from an accredited university training program, will be the only eligibility pathway for BCBA certification	<u>March 2022</u>

ABA Subspeciality Areas

https://www.bacb.com/about-behavior-analysis/

Fact Sheets

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ABA SUBSPECIALTY AREA SUMMARY [PDF]			
Autism & Intellectual/Developmental <u>Disabilities</u> [PDF]	Behavioral Gerontology [PDF]	Behavioral Pediatrics [PDF]	
Sports [PDF]	Brain Injury Rehabilitation [PDF]	Prevention/Intervention in Child Maltreatment [PDF]	
Clinical Behavior Analysis [PDF]	Education [PDF]	Health and Fitness [PDF]	
Organizational Behavior Management [PDF]	Sustainability [PDF]	Treatment of Substance Use Disorders [PDF]	

Use the hyperlink above to click on specific subspeciality areas for more information as well as informational videos

A Nebraska Parent's Experiencce

"I'd never heard of a BCBA until I needed one. And once I needed one...it was all a matter of trust. Trust that can, sadly, be exploited, as it was when my family needed services. Nebraska needs licensure for Board Certified Behavior Analysts (BCBAs) to ensure families in need don't have to solely rely on trust to receive the best services possible. When my child was diagnosed with Autism Spectrum Disorder, I didn't know where to begin. On the day of diagnosis, I was given a list of preferred providers in our area. Without this list, I would have been completely lost. I have never heard of Applied Behavior Analysis (ABA) therapy, had no idea what it entailed or why it was important – I placed all my trust in the list I was provided.

Third down on the list was a provider that was willing to see us immediately. I thought, "No waitlist, what a blessing!" The other providers on the list all had daunting waitlists and everyone we spoke with said that ABA therapy was the gold standard of services for children on the spectrum. So – trusting the advice I'd received so far – I gladly accepted the services offered from this provider.

Looking back, their eagerness to immediately accept our application should have been a warning sign. We completed the onboarding assessment with the BCBA, an individual who also owned the company and was the only BCBA on staff at the time. The BCBA attended our first in-home therapy session for only the first 10 minutes, at which time they went over our child's assessment results. They discussed some program ideas for our child, but we as parents did not receive a written copy of any goals, nor were we offered a chance to input our opinion for the programs.

After our first in-home therapy session, the BCBA was never present again, so I placed my trust in the behavior technicians. I had no idea what an ABA session entailed. The sessions appeared disjointed to me – a bit unstructured and unorganized – but I was new to the world of ABA and determined to keep an open mind (though I disliked the lack of structure). I sat in on the first sessions, both to learn and to observe, and always somehow ended up taking charge of the sessions. The techs had an air of passiveness; they would look to me for advice on the next move. It hinted at poor training, and the fact that we had not seen the BCBA since the beginning of the first appointment made me think twice about this provider. But I trusted the advice that ABA was the ideal route – and anyone owning an ABA organization must know what they're doing, I thought – so I held my tongue. Still, it seemed odd to me that the techs arrived with no materials – no data sheets, no toys, no computer, not even a pencil to write notes.

Our child was not responding well to the sessions' structure. The procedures they utilized caused an increase in our child's problem behavior, a point I brought to the BCBA's attention. All the communication was via email or phone – as we had not seen the BCBA in person since the first visit – and though I discussed my concerns several times, the BCBA did not attend a therapy session to see the problem behavior in real time. The behavior was brushed off and explained away, despite the BCBA never seeing the behavior nor having enough data to explain the behavior. These was no collaboration that I saw between the BCBA and the techs, as the sessions did not change and the behavior continued to worsen.

Finally, I could hold my tongue no longer. One day, the tech arrived with nothing in hand again and said to me, "So, what should we work on today?" I stared dumbfounded. They didn't have a lesson plan for this session?! This was the final straw – I had finally lost all trust in this provider. Since our child's BCBA was the only BCBA on staff, and there was no clinic director, no board, not even a physical address for the this provider, there was no one else I could talk to about our frustrations. The only thing we could do was leave this provider and try for a different experience at a different location.

And we found that experience. Our second attempt at ABA therapy was incredibly positive: strong communication with parents, hands-on BCBAs who provided parent trainings, structured sessions that aligned with our child's learning style, multiple BCBA's on staff for peer-to-peer collaboration, and a hierarchy within the clinic that assured oversight and accountability. Our child's behavior improved and their skills grew exponentially. Our trust in ABA was restored.

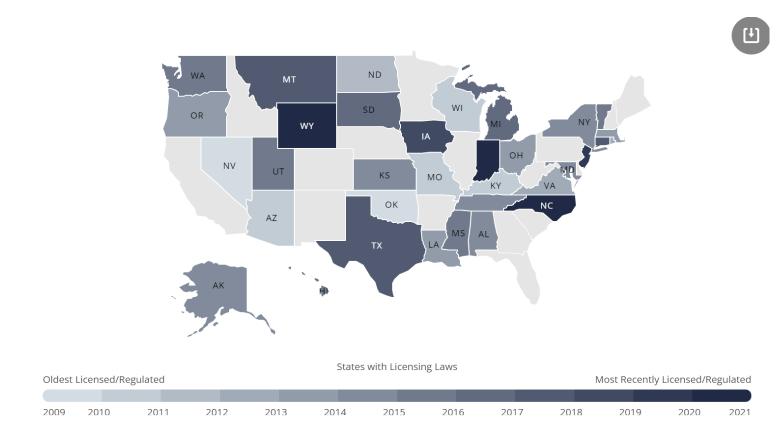
It wasn't until after we found the second provider that we realized just how poor our initial experience with a BCBA had been. You trust that an individual who is a Board Certified Behavior Analysts – as well as a PhD and a business owner – would be more competent. But an impressive C.V. doesn't always equate to strong ethics and integrity. This BCBA is operating as a provider of services but has no one to answer to: no other BCBAs on staff, no supervisor, no board of directors. Without any oversight, who is to say that their services aren't being offered at their highest moral code?

As a parent, I wholeheartedly support the need for licensure of all Board Certified Behavior Analysts. As the rate of diagnosis grows, the need for services will also grow. This will open the opportunity for self-contained businesses like the one we found to provide services without any oversight or consequences. Without licensure, there is no way for parents to report substandard services, no one to hold these providers accountable. Without licensure, there is no expectation or incentive for all ABA providers to operate with transparency. As the need for services grows, I fear a rise in predatory clinics: businesses that offer only at-home services, with no local address, in which the families do not have regular inperson contact with a BCBA nor any contact information for a director or supervisor should they need to report substandard practices. Therapy is about building relationships with families and building trust. Trust is everything for a family in need of ABA services, but trust shouldn't be the only factor in holding those services to a high standard. We need licensure in the state of Nebraska.

Current Practices in Nebraska

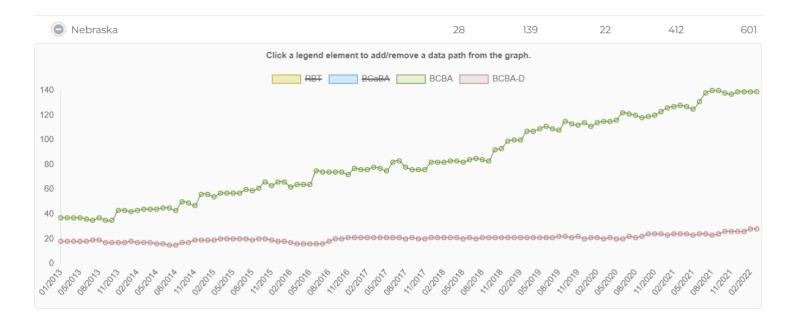
Company	mpany Location of Main Contact Office	
UNMC	Nebraska – based, but several programs and departments are housed through the University of Nebraska Medical Center	Nebraska 2005
State of Nebraska	Nebraska-based. Is not an ABA-based company but employs BCBAs	2009
Behaven Kids	Nebraska-based	2009
Childhood Autism Services	Nebraka-Based	2011
Lovaas Institute	Not Nebraska-based. Services provided nation-wide	2012
Behavior Matters	Not based in Nebraska. Has centers in Alaska, California, and Nebraska	2013
Mosaic	National Office is in Omaha. Not an ABA company, but employs BCBAs	2014
Answers for Autism	Nebraska-based	2015
The Spectrum Center for Autism	Nebraska-based	2015
Radical Minds	Nebraska-based	2016
Dynamic Learning Inc	Nebraska-based	2018
Focused Behavior Solutions	Nebraska-based – Centers in Washington State	2019
Autism Services of Lincoln	Nebraska-based	2020
Golden Steps ABA	Centers located in Georgia, Indiana, Maryland, Massachusetts, New	2020
	Mexica, North Carolina, Oklahoma, Tennessee, Virginia. Establishing in Nebraska	
Duet (previously ENCOR)	Not an aba-based company, but employs BCBAs	2020
Above and Beyond Therapy	Based out of New Jersey. No info online where centers through this company are located.	2020
Spectra Behavioral Health	Nebraska-Based	2021
Stride Autism Centers	Companies out of Illinois and Iowa, now establishing centers in Nebraska	2021
Autism Learning Collaborative	Centers in New Mexico, Texas, Oklahoma, now establishing in Nebraska	2021
Nebraska Behavior Supports (through BK Behavior Ventures)	Not Nebraska-based. There is an overarching company with locations in New York, New Jersey, North Carolina, Georgia, Kansas and Nebraska.	
Step Ahead ABA	Centers located in Indiana, North Carolina, now establishing in Nebraska	2022
Encore Support Services	Centers in New York, New Jersey, and Michigan	2022
Omaha Public Schools	Nebraska. Is not an ABA-based company but employs BCBAs	2022
Blue Gems ABA	Not Nebraska-based. Unable to locate the main office	2022
Balance Autism	Based out of Iowa, looking to establish centers in Nebraska	TBD
Maxim Healthcare Services	Centers in California and Washington State, looking to establish in Nebraska	TBD
Your Way ABA	Unknown – advertising hire for a BCBA on site in Omaha. No info found online	TBD
Illuminate ABA Therapy	Hiring for remote supervisor of home and community services	Unknown
Therapeutic Alliance	Hiring for remote supervisor of home and community services	Unknown
Lighthouse	Hiring for remote supervisor of home and community services	Unknown

Current Licensure by State



https://www.bacb.com/u-s-licensure-of-behavior-analysts/

Certification and Demand in Nebraska

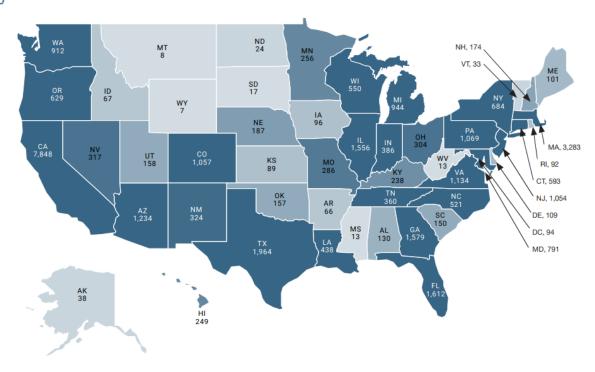


https://www.bacb.com/services/o.php?page=101134

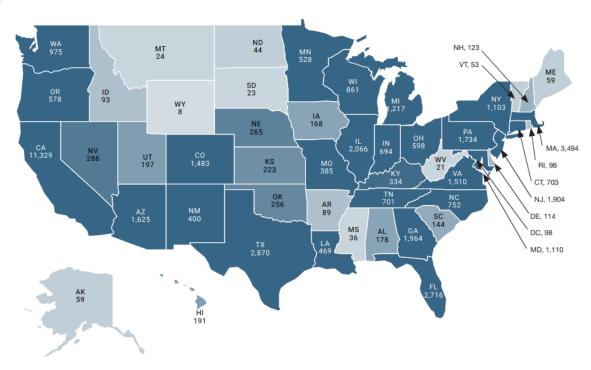
Demand for BCBA/BCBA-D Certification by State

The following heat maps depict the number of job postings per state in 2020 and 2021. The 2020 figure is included to provide a visual demonstration of the increase in demand. The 2021 data include job postings that either required or preferred BCBA/BCBA-D certification. Data from the top 30 states and their respective changes from 2020 to 2021 are depicted in the table that follows.

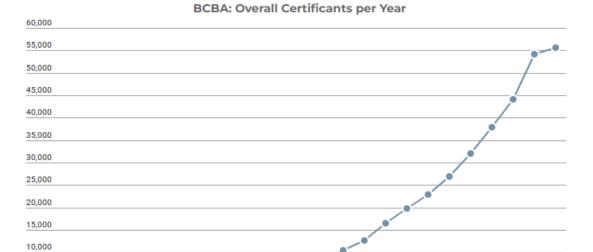
2020



2021



BCBA Certification Growth



https://www.bacb.com/bacb-certificant-data/

5,000

Sample of Fiscal Numbers for a Stand-Alone Board

Fiscal Year	Revenues	Expenses	Carried Forward Cash Balance	Cumulative Number of Licensees
2011	\$5,600.00		\$5,600.00	20
2012	\$11,515.00	\$3,279.30	\$13,835.70	29
2013	\$11,930.00	\$10,612.96	\$15,152.74	54
2014	\$19,895.00	\$12,904.60	\$22,143.14	70
2015	\$21,545.00	\$13,580.96	\$30,107.18	105
2016	\$39,675.00	\$13,807.01	\$55,975.17	142
2017	\$36,035.00	\$30,896.42	\$61,113.75	167
2018	\$42,535.00	\$36,669.14	\$66,979.61	236
2019	\$61,940.00	\$37,257.62	\$91,661.99	307
2020	\$59,015.00	\$38,402.22	\$112,274.77	396

 $\underline{https://aba.ky.gov/Documents/March\%\,202021\%\,20ABA\%\,20Newsletter.pdf}$

Necessity for Quality Practitioners for Constitutant Protection

Houghton, Ong, & Bolognai, 2017

Mandell, 2008

Montes & Halterman, 2008

Tsakanikos, Costello, Holt, Sturmey, & Bouras, 2006

Campbell, 2003

Hagopian, Rooker, & Rolider, 2011

Hassiotis, Canagasabey, Robotham, Marston, & Romeo, 2010

Heyvaert, Maes, Van den Noortgate, Kuppens, & Onghena, 2012

Lang et al., 2009

Ontario Association for Behaviour Analysis, 2019

Lovaas, Freitag, Gold, & Kassorla, 1965

Lovaas & Simmons, 1969

Mason & Iwata, 1990

Hanley, Iwata, & McCord, 2003

Eldevik et al., 2009

Eldevik et al., 2010

Green, 2011

Klintwall, Eldevik, & Eikeseth, 2015

Virues-Ortega, Rodriguez, & Yu, 2013

Chasson, Harris, & Neely, 2007

Jacobson, Mulick, & Green, 1998

Motiwala, Gupta, & Lilly, 2006

Bibby et al., 2002

Mudford et al., 2001