

# Listening to the Voices of Spanish-Speaking Acousticians in the Americas

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The Acoustical Society of America (ASA) put into action its first Strategic Plan in 2015 (for the current iteration, see [bit.ly/ASAstrategicPlan2022](https://bit.ly/ASAstrategicPlan2022)), outlining four goals for the future, one of which was “to increase member engagement and diversity.” Ana Jaramillo, an ASA member and native of Medellín, Colombia, has attended ASA meetings regularly since 2007 and noted how little Hispanic participation there was. To address this apparent underrepresentation, a small group of Spanish-speaking acousticians met at the ASA Minneapolis meeting in 2018 where they brainstormed how to better serve and connect the Hispanic community to the ASA. This eventually led to the birth of the Spanish-Speaking Acousticians (SSA) in the Americas Regional Chapter (see [ssaasa.org](https://ssaasa.org)), which was officially approved in December 2019. Its founding members were Fernando del Solar Dorrego (current chair), Ana Jaramillo (current representative at National), Sandy Guzman, and Alexandra Padilla. The current SSA Committee is pictured in **Figure 1**. Currently, the chapter

has over 180 members, distributed principally across the Americas but also in several countries in Europe and Asia.

Although the SSA Committee is gaining more traction and exposure, our records indicate that currently less than 20% of SSA members are also ASA members (student, associate, full, or otherwise) and even less actively participate in ASA activities. The ASA Membership Directory reveals that only 105 ASA members reside in Spanish-speaking countries (one-third in Spain and two-thirds in Latin America). Of these, only five are Fellows of the ASA and 17 are student members. There are, of course, Hispanic members not identified by this search who currently reside in other regions, such as the United States. A demographic survey from the ASA in 2019 shows that only 4% of its members are Hispanic. However, over the years, there have been many publications in *The Journal of the Acoustical Society of America (JASA)*, conference presentations, and other ASA participation from Latin American acousticians who are not necessarily members of our chapter. Worth mentioning is that the Society offers a discounted corresponding electronic associate membership option for acousticians residing in developing countries, such as in Latin America (see [acousticalsociety.org/asa-membership](https://acousticalsociety.org/asa-membership)).

**Figure 1.** *Top row, left to right: Ana Jaramillo, representative at National; Fernando del Solar Dorrego, chair; Mariana Botero, secretary; Zachery L'Italien, treasurer. Bottom row, left to right: Juan Francisco Mayorga, member at large; Andrés Millán, member at large; Felipe Raimann, vice chair.*



Sixty-five percent of the current SSA members are working and/or studying in architectural acoustics (AA), 10% in musical acoustics, and less than 1% in technical areas such as psychological and physiological acoustics and computational acoustics. In addressing this disproportionate representation of members in AA and other technical areas, our challenge as a chapter is to broaden our membership and invite researchers, practitioners, and students from all technical areas to participate in our activities and group.

There have been recent fruitful efforts, unrelated to SSA, to increase engagement of Latin American acousticians

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within the ASA. In 2017, Ernesto Accolti published a series of *Acoustics Today* interviews with accomplished Latin American acousticians (see [bit.ly/AcousticianInterviews](https://bit.ly/AcousticianInterviews)). Also, in 2020, several *Acoustics Today* articles were translated and published in the Spanish-language science magazine *Ingenierías* as part of the International Year of Sound (see [bit.ly/SpanishArticles](https://bit.ly/SpanishArticles)). Both of these endeavors have increased access to the ASA for the Spanish-speaking community and have given the spotlight to commendable Latin American acousticians from a variety of technical areas. We are hopeful our chapter's endeavors will continue this trend of increased ASA involvement from Hispanic acousticians, increase awareness of challenges experienced by professionals in Latin America, and foster regional development.

The SSA Chapter expects to see increased ASA membership and participation from our current members and greater representation of other technical areas in the coming months. We have several upcoming events and collaborations with the Committee to Improve Racial Diversity and Inclusivity (CIRDI; see [bit.ly/CIRDIASA](https://bit.ly/CIRDIASA)), other ASA groups, and entities outside the Society. Ultimately, we hope to see more opportunities for Hispanic acousticians to be an active part of the ASA both virtually and in person because we see the Society as an invaluable resource for acousticians in the region and those acousticians as a source of growth for the ASA.

The SSA Committee strives to better understand the problems and limitations encountered by acousticians in Latin America. In June 2021, a survey was sent to all SSA members in which respondents were asked to describe their perspective on the opportunities for career development and education in their home countries in terms of access to proper education, employment, and economic stability. The responses, largely coming from acousticians in the field of AA, indicate that acoustics is not a well-developed profession or subject of study in Latin America and that many acousticians from this technical area struggle to grow in their career paths. A common criticism expressed by survey respondents is the lack of governmental and institutional involvement in generating a regulatory framework that promotes acoustics for building design, construction, and environmental noise. Although we agree that such regulations could yield more opportunities for acousticians in architectural acoustics and noise,

an equally important factor is increased industrial, scientific, and technological development, which could further incentivize talented acousticians to research, practice, and study in the region.

One respondent, who emigrated from his country of origin, said, “[In my home country] there are no job opportunities in acoustics, the few companies [that there are] do not have open positions.” Within Latin America’s struggling economies, it is especially challenging to start companies capable of hiring and appropriately compensating professionals. Those with the appropriate education and experience are commonly considered “overqualified,” and thus positions end up filled by those who do not have sufficient education or expertise in acoustics.

Although most of the survey respondents are professionals in AA, there are Latin American acousticians from other disciplines who regularly contribute to the ASA through *JASA*, *Proceedings of Meetings on Acoustics (POMA)*, and other means. However, we expect that these individuals experience similar challenges related to professional development. For example, in an *Acoustics Today* interview with Gabriela Virginia Santiago, a Venezuelan acoustician focused on cognitive neuroscience, she comments, “[A]t least in Venezuela acoustics is seen as a completely new field of study and a lot of people do not know about acoustics. Nevertheless, I think that the interest on acoustics is growing in the youngest generations from South America,” (see [bit.ly/SantiagoAccolti](https://bit.ly/SantiagoAccolti)) This interest is also noted in an interview with Jorge Arenas, who notes that academia was essential in bringing acoustical criteria into Chilean legislation, which was a direct result of global collaboration (see [bit.ly/ArenasAccolti](https://bit.ly/ArenasAccolti)). Individuals, like the above-mentioned, work hard to bring exposure to acoustics to the region’s greater population and are pioneering and setting the bar for future work.

With acoustics being a growing field in Latin America, the SSA Committee believes that peer collaboration has a great potential to advance the field, further emphasizing the importance of connecting acousticians and providing an outlet to facilitate regional development. “In the region, there are countries that are more advanced than others. I see a promising future as I see continuous growth, and that requires more knowledge, and more acoustic applications to solve problems in developing countries,” comments a member from Ecuador.

Concurrently, a member and civil engineering professor from Uruguay sees an immense potential for growth but is concerned that meeting the basic needs in developing countries hinders advancement in specialized areas such as acoustics. Jaramillo recalls when, after obtaining her doctoral degree in the United States, she returned to Colombia and found a significant development in the field of architectural acoustics as demonstrated by well-established consulting firms and a better exchange of knowledge between universities and professionals in cities across the country. This building of professional and academic connections and sharing knowledge could begin to interconnect countries in the Americas to combine knowledge and experience, especially now that the world is better prepared to communicate through virtual platforms.

There have also been efforts to implement courses in undergraduate and graduate programs in acoustics in Latin American universities. Programs in acoustics are offered most notably by universities in Argentina and Chile, as several respondents note, but in a more recently established curriculum such as a master's degree program at San Buenaventura University in Bogotá, Colombia. Several other Latin American countries offer courses in acoustics as part of a different degree program but not necessarily with acoustics being the primary focus. Nonetheless, compelling coursework has a great potential to foster interest in the field of acoustics. For example, at the Buenos Aires Institute of Technology (ITBA), Buenos Aires, Argentina, Fernando del Solar Dorrego takes his students to conduct critical listening at the Teatro Colón where they have the intriguing opportunity to correlate theory with experience.

We recognize, despite recent growth, that there are still shortcomings, challenges, and potential for improvement, as discussed in this essay. We foresee continued growth in the field of acoustics in Latin America and see our chapter as a large step in making the ASA more accessible to Hispanic acousticians. We are confident that the potential returns from increased contributions of Hispanic acousticians will be substantial and will result in a further enriched Society and field of acoustics, yielding greater opportunities for our colleagues in Latin America and the greater acoustics community.

The SSA Committee is thrilled with the amount of support and enthusiasm we have received from the ASA community, and we are working hard to continue to host presentations, broaden our membership, collaborate with other groups, and benefit the Hispanic community. The SSA Committee works diligently to bring more Hispanic voices to the ASA by hosting sponsored events (in both English and Spanish) from renowned acousticians across the globe. Moving forward as a chapter and part of the ASA, we intend to expand our activities and make our chapter an increasingly useful resource, encouraging greater access and opportunity for Latin American acousticians to participate in the ASA at national meetings, publications, and committees and continued regional development. The SSA Committee looks forward to the future of acoustics in Latin America and in the future of the ASA!

In conclusion, we would like to invite all Hispanic members of the ASA, regardless of geographic location, to join our group. We very much want to engage with as many colleagues as we can from all technical areas of the ASA. To join the SSA Chapter, please visit our website at [ssaasa.org/unete](http://ssaasa.org/unete).

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