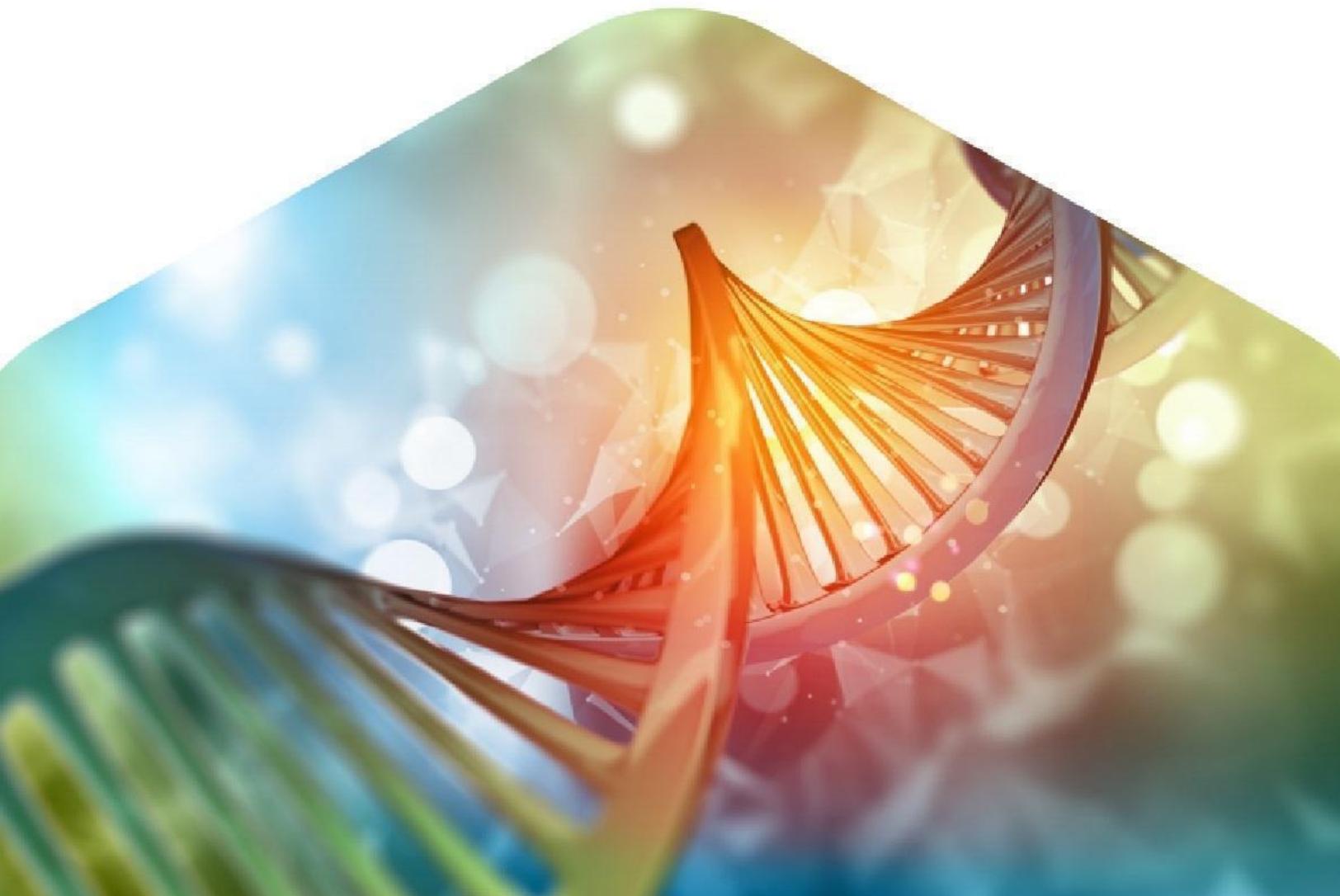




Executive Summary



Facts about the Genetic Counseling Profession

Did you know...?

- ✓ Since 1999, the profession has grown significantly and as of April 2021, there are 5,629 certified genetic counselors (CGCs)¹ in the U.S.
- ✓ The genetic counseling profession has grown by over 100% in the last ten years and is expected to grow another 100% over the next ten years. By 2025 there should be nearly 7,500 certified genetic counselors, and by 2030 there are likely to be over 10,000. Significant growth is being driven by the creation of additional training programs and the expansion of current programs².
- ✓ Genetic counselors work in a variety of settings, including but not limited to university medical centers, private and public hospitals/medical facilities, diagnostic laboratories, health maintenance organizations, not-for-profit organizations, and government organizations and agencies.
- ✓ Genetic counselors work in multiple areas of practice, including pediatrics, prenatal, cancer, metabolic disease, neurology, cardiology, infertility, pharmacogenetics, genomic medicine, and others.
- ✓ Increasing demands for genetic expertise in varied fields provides genetic counselors new ways of using their training in genetic counseling. These include working in administration, basic and behavioral research, public and professional education, educational content development and editing, public health, private industry, laboratory support, public policy, public relations and consulting.
- ✓ The average salary for a full-time genetic counselor is \$102,028 USD³ but can exceed \$250,000 USD, depending on specialty area, training, and experience.
- ✓ Ninety-eight percent of genetic counselors have a Master's degree in human genetics or genetic counseling.
- ✓ Eight out of ten genetic counselors (83%) report they are satisfied with their current job and 88% of genetic counselors report being satisfied with the profession³.
- ✓ The National Society of Genetic Counselors (NSGC), founded in 1979, promotes the professional interests of genetic counselors and provides a network for professional communications. As of 2022, NSGC has over 4,700 members.
- ✓ The American Board of Genetic Counseling (ABGC) is a not-for-profit organization incorporated in 1993 for the purpose of certifying and recertifying genetic counselors.
- ✓ The Accreditation Council for Genetic Counseling (ACGC) accredits genetic counseling training programs. As of April 2022, there are 56 accredited training programs in the U.S. and Canada⁴.

¹ American Board of Genetic Counseling, April 2021.

² <https://www.nsgc.org/>.

³ Data from the 2022 PSS. Statistical outliers (extremely high and low salaries) were removed before analyses were performed using an Interquartile Range Rule of 3.

⁴ <https://www.gceducation.org/>.

About the Survey

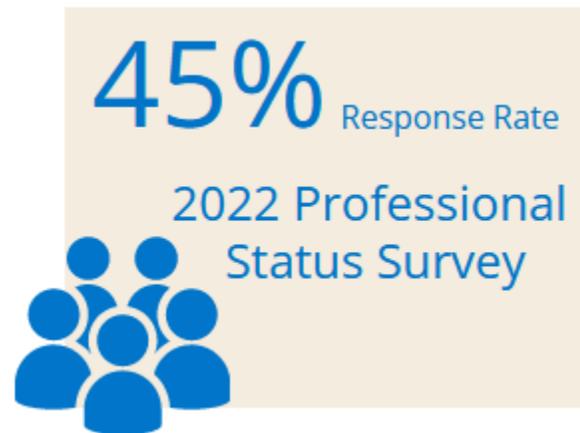
The National Society of Genetic Counselors (NSGC) administers a Professional Status Survey (PSS) to its members. Since the survey was first administered in 1980, results from the NSGC PSS have served many purposes, including establishing benchmarks for salaries and benefits for genetic counselors, identifying workforce issues, and gauging job and professional satisfaction in the genetic counseling community. Data from the PSS originate from genetic counselors working in a variety of settings, including hospitals, academic centers, diagnostic laboratories, the private sector, public health, and others.

Historically, the full PSS has been offered biennially, but it is now offered annually. The published reports from the PSS provide a detailed profile of the current genetic counseling workforce, primarily in the U.S. and Canada, and identify new and emerging trends in this growing profession. The analyses also provide information useful to individual genetic counselors and those who interact with them, including current and prospective employers, medical associations, policy makers, prospective genetic counselors, as well as individuals obtaining genetic counseling services. The information collected by the PSS also helps the NSGC achieve its strategic priorities in J.E.D.I. (justice, equity, diversity and inclusion) by carefully tracking and monitoring changes over time related to demographics, professional status, and job satisfaction within the genetic counseling profession.

The 2022 PSS

The PSS was administered from January 3, 2022 through February 28, 2022 to eligible genetic counselors who are either Full, Emeritus, or New Members of the NSGC, members of the Canadian Association of Genetic Counsellors (CAGC), and/or diplomates of the American Board of Genetic Counseling (ABGC). The 2022 PSS survey collects data about the genetic counseling profession from January 1, 2021 to December 31, 2021.

A total of 2,859 completed surveys were received from the 6,346 solicited from the three organizations, resulting in a 45% response rate⁵. This demonstrates the widespread interest in sharing professional information, and also reflects the commitment genetic counselors have to their profession. Of the 2,859 total respondents, 2,253 genetic counselors (79%) shared their salary information⁶.



⁵ Most recent PSS response rates: 2021 PSS respondents 55%, 2020 PSS respondents 50%, 2019 PSS respondents 49%, 2018 PSS respondents 53%.

⁶ 83% of 2018 PSS respondents, 85% of 2019 PSS respondents, 82% of 2020 PSS respondents, and 82% of the 2021 PSS respondents shared their salary information.

Scope of the PSS

This year's PSS addresses questions in the following areas:

- Genetic Counselor Education and Experience
- Professional Status/Work Environment
- Access and Service Delivery
- Salary and Benefits
- Board Certification/Licensure
- Diversity, Inclusion, and Satisfaction

Survey Administration

The 2022 PSS was administered online by InfoSurv Research, an independent research firm. Hundreds of real-time and server-side validation checks were built into the survey instrument to ensure client-side data accuracy. These validation checks flag data that are significantly out of expected range. To ensure reporting of accurate data, survey respondents were able to answer questions, review previous answers, modify responses, and return to the survey multiple times to complete it at their convenience.

Demographics Data

Ethnic and racial demographic data, and information about sexual orientation, gender identity (SOGI) and disability status have been collected through the PSS over the years, with the definitions and scope of data collected continually evolving. To date, these data have been analyzed and reported in a limited capacity, yielding descriptive statistics only. Committed to addressing issues of justice, equity, diversity and inclusion (J.E.D.I.), in 2022 the NSGC moved to allow enhanced analysis of member demographics. This enhanced analysis illuminates disparities; informs NSGC initiatives, procedures, and guidelines; and enables special reports to its membership. This year, a Demographics Workgroup was also convened to review PSS questions related to member demographics to assure their inclusivity, appropriateness, and accuracy.

Demographics

Ninety-three percent of respondents identified as women and 5% identified as men. Over the past two decades of PSS administrations, the number and percentage of individuals identifying as men has increased slightly, but this change is not significant from a statistical perspective and the overall number remains low. This is consistent with previous administrations of the PSS.

Among PSS respondents, 89% identify as straight, 4% bisexual, 3% preferred not to respond to the question, 2% gay or lesbian, and 2% of respondents provided a self-description.

The options for race/ethnicity were expanded for the 2022 PSS to better reflect the diversity of the genetic counseling community. The majority of PSS respondents (89%) identify as White. Nine percent of respondents identify as Asian, 3% as Hispanic or Latinx, 3% as African (1%) or Middle Eastern (2%) descent, and 2% either didn't know or chose not to respond to the question.

Table 1. Respondent Race/Ethnicity	N	%
White	2,535	89%
Asian	260	9%
Hispanic or Latinx	89	3%
Middle Eastern or North African (MENA)	58	2%
Black, African American, or of African descent	41	1%
American Indian, Alaskan Native, or Indigenous Peoples of Canada	12	<1%
Native Hawaiian or Other Pacific Islander	2	<1%
Other race/ethnicity	41	1%
Prefer not to answer	20	1%
Total	2,857	100%

Respondents could select more than one item. Percentages reflect the total number of respondents indicating each item divided by the total number who responded to the question.

Seventeen percent (496 of 2,859 who answered the question) reported having a disability, chronic illness, mental illness, or other major medical condition or impairment. For more information, please refer to the Demographics and Methodology Report and the Professional Diversity, Inclusion, and Satisfaction Report.

Geographical Representation

The 2022 PSS generated responses from every U.S. state except West Virginia. Just over half of survey respondents (53%) work in ten U.S. states (in descending order; generated from work postal codes): California, New York, Pennsylvania, Texas, Ohio, Massachusetts, Minnesota, Wisconsin, Michigan and North Carolina.

Canadian genetic counselors represented eight percent of respondents to the residence questions. The majority of Canadian respondents work in Ontario (45%), followed by British Columbia (19%), Quebec (14%) and Alberta (10%).

Figure 1. PSS Respondents: United States

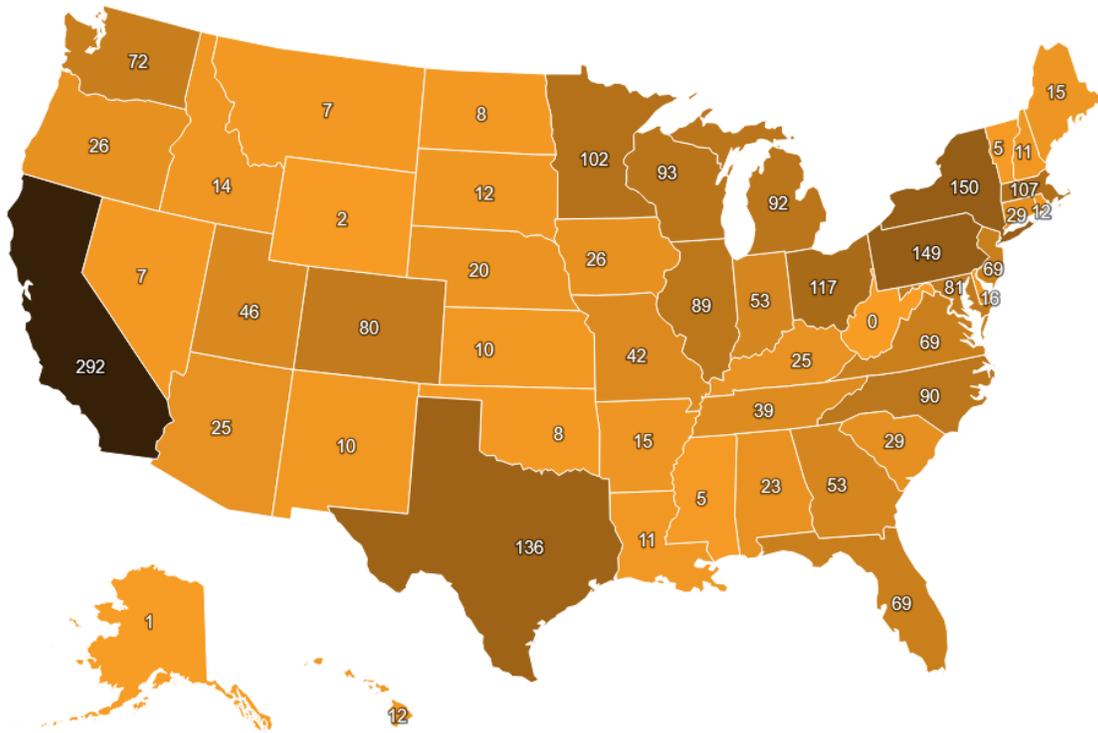
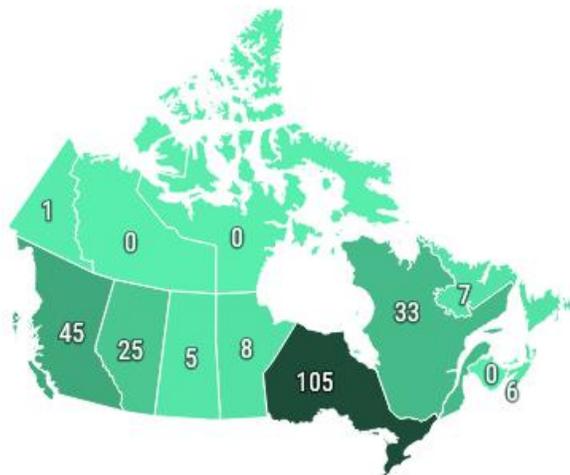


Figure 2. PSS Respondents: Canada



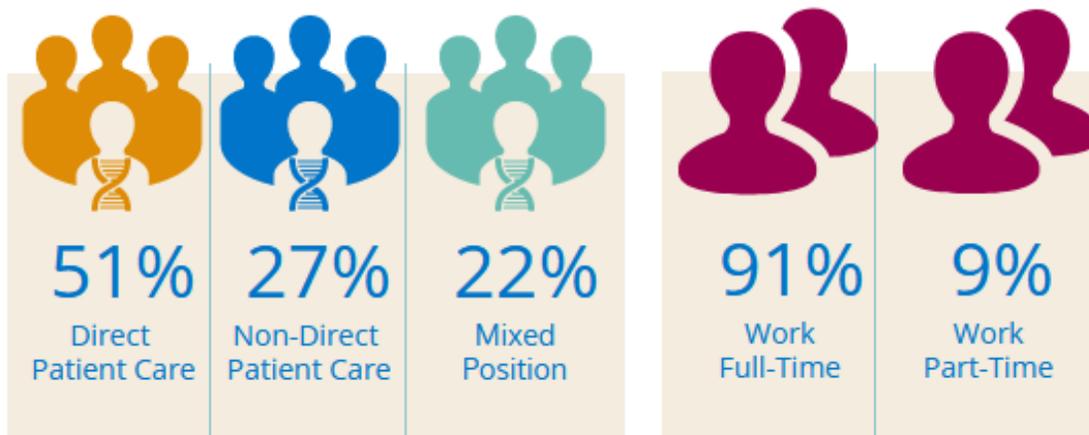
For the 2022 PSS, respondents were categorized by U.S. Metropolitan Statistical Areas (MSA)⁷ based on their work zip code. MSAs with 20 or more respondents are shown below in descending order. Two-thirds of U.S. respondents to the PSS (66%) work in these MSAs.

Table 2. Metropolitan Statistical Areas (MSA)	N	% of U.S. Respondents
New York, NY	101	4.2
Boston, MA	94	3.9
Chicago, IL	81	3.3
Philadelphia, PA	79	3.3
Minneapolis, MN	73	3.0
Washington, DC	73	3.0
Los Angeles, CA	68	2.8
Denver, CO	63	2.6
Houston, TX	60	2.5
San Francisco, CA	59	2.4
Seattle, WA	52	2.1
Annapolis, MD	47	1.9
Indianapolis, IN	44	1.8
Chapel Hill, NC	44	1.8
Salt Lake City, UT	43	1.8
Atlanta, GA	42	1.7
Cincinnati, OH	40	1.7
Columbus, OH	39	1.6
Milwaukee, WI	38	1.6
Pittsburgh, PA	38	1.6
Palo Alto, CA	38	1.6
Detroit, MI	37	1.5
Madison, WI	30	1.2
Dallas, TX	29	1.2
Irvine, CA	28	1.2
Ann Arbor, MI	26	1.1
San Diego, CA	25	1.0
Cleveland, OH	24	1.0
Kansas City, MO	24	1.0
Livingston, NJ	24	1.0
Oakland, CA	24	1.0
Rochester, MN	23	0.9
Portland, OR	22	0.9
Tampa, FL	22	0.9
Charlotte, NC	21	0.9
Saint Louis, MO	20	0.8

⁷ In the United States, a metropolitan statistical area (MSA) is a geographical region with a relatively high population density at its core and close economic ties throughout the area. MSAs are defined by the U.S. Office of Management and Budget and used by the Census Bureau and other federal agencies for statistical purposes. The names associated with these MSAs correspond to the largest city in their area rather than the name of the county.

Genetic Counselor Work Environments

Most PSS respondents (91%) reported working full-time (defined as 37.5 or more hours per week) with the remaining 9% reporting that they worked less than 37.5 hours per week. Over half of respondents (51%) work in a direct patient care position, 27% work in a non-direct patient care position, and 22% work in a mixed position.



Genetic counselors who responded to the 2022 PSS reported working for a wide variety of employer types. Three-quarters (75%) work for one of four employer types: academic medical centers, commercial diagnostic laboratories, public hospitals, or private hospitals. Those in direct patient care positions were more likely to be employed by a hospital or other medical setting than those in non-direct patient care or mixed positions. Conversely, those who have non-direct patient care positions were more likely to be employed by a commercial diagnostic laboratory.

Table 3. Employer Work Setting	Direct patient care		Non-direct patient care		Mixed position	
	N	%	N	%	N	%
Hospital/Medical Facility – Academic Medical Center	642	45%	68	9%	258	43%
Laboratory - Commercial	47	3%	371	51%	94	16%
Hospital/Medical Facility – Public (including FQHC)	264	19%	9	1%	59	10%
Hospital/Medical Facility - Private	282	20%	12	2%	57	10%
Private Company - Telegenetics / Consulting / Utilization Management	63	4%	38	5%	26	4%

Respondents were asked to report the significant roles they fill within their current position. The top three significant roles reported by those in direct patient care positions were: direct patient care, student supervision, and education/teaching. For those in non-direct patient care positions, the most commonly reported roles were: education/teaching, laboratory report writing, and laboratory support/customer service. Those who are in mixed positions reported more diverse roles and were more likely to have clinical management and supervisory roles compared to those who have direct or non-direct patient care positions. Direct patient care, clinical coordination, and student supervision were reported as the top three significant roles for mixed positions. Genetic counselors who responded to the PSS reported similar rates of teaching/education and advocacy across settings.

	Direct patient care		Non-direct patient care		Mixed position		All Positions	
	N	%	N	%	N	%	N	%
Direct Patient Care	1,396	99%	7	1%	549	92%	1,952	71%
Education/Teaching	642	45%	292	40%	331	56%	1,265	46%
Supervision - Students	764	54%	101	14%	317	53%	1,182	43%
Coordination - Clinical	527	37%	55	8%	268	45%	850	31%
Research	152	11%	146	20%	214	36%	512	19%

Respondents could select more than one item, so the total will not add up to 100%. Percentages reflect the total number of respondents indicating each item divided by the total number who responded to the question.

Adult cancer genetics and prenatal genetics were the most frequently cited practice areas. The next two most common areas reported were pediatrics and preconception/reproductive screening. There were significant differences in practice areas between respondents in direct patient care and non-direct patient care positions. Within a single position, genetic counselors who responded to the PSS often had more than one area of practice. Similar to previous administrations of the PSS, over half (60%) reported having two or more areas of practice. For more information about genetic counselor work environments, please see the *Work Environment Report*.

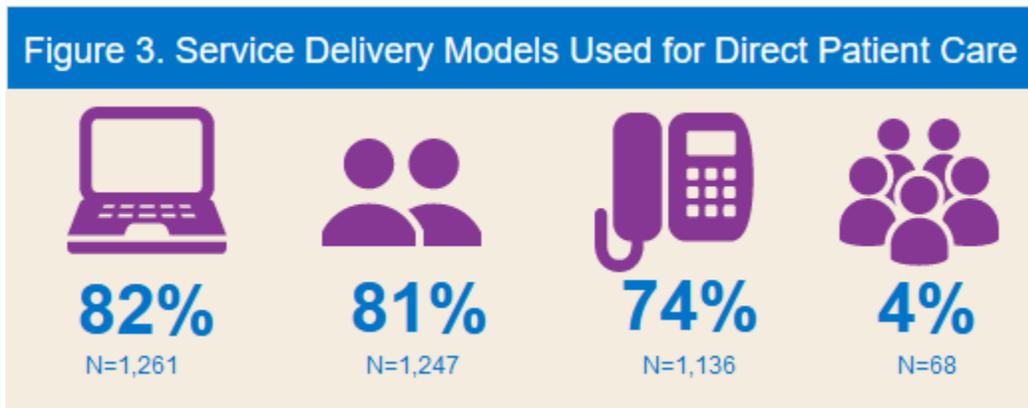
	Direct patient care		Non-direct patient care		Mixed position		All Positions	
	N	%	N	%	N	%	N	%
Cancer Genetics - Adult	695	49%	209	29%	234	39%	1,138	42%
Prenatal	510	36%	125	17%	126	21%	761	28%
Pediatrics	406	29%	70	10%	140	23%	616	23%
Preconception/ Reproductive Screening	370	26%	92	13%	97	16%	559	20%
General Adult Genetics	323	23%	46	6%	90	15%	459	17%

Respondents could select more than one item, so the total will not add up to 100%. Percentages reflect the total number of respondents indicating each item divided by the total number who responded to the question.

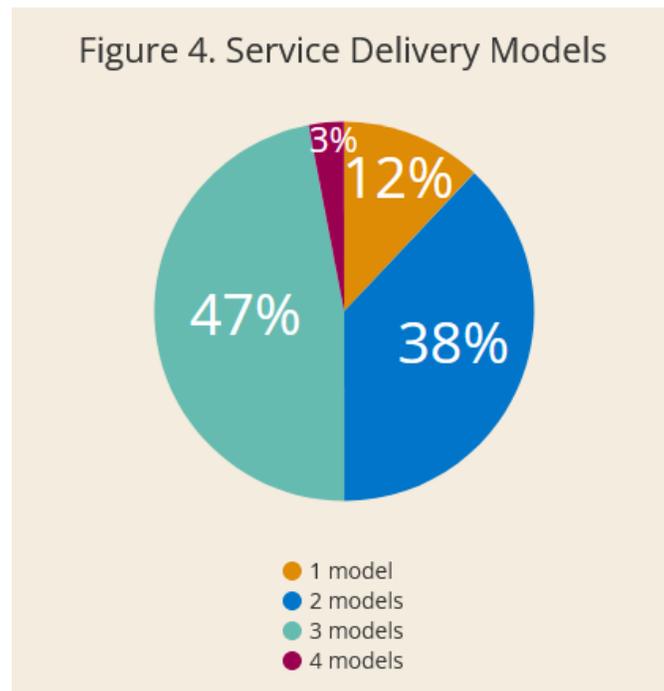
Service Delivery and Access to Care

Service Delivery Models

In 2021⁸, telegenetics-audiovisual is the most common service delivery model (82%), followed by in-person (81%). Almost three quarters of genetic counselors (74%) use telegenetics-telephone only, and 4% of genetic counselors reported they deliver services through group counseling.



Twelve percent of respondents used just one model of service delivery, 38% used two models (predominantly in-person combined with either telegenetics-telephone only or telegenetics-audiovisual), 47% used three models, and 3% used all four models to deliver genetic counseling services to patients.



⁸ The 2022 PSS reflects work practices in 2021.

Referrals

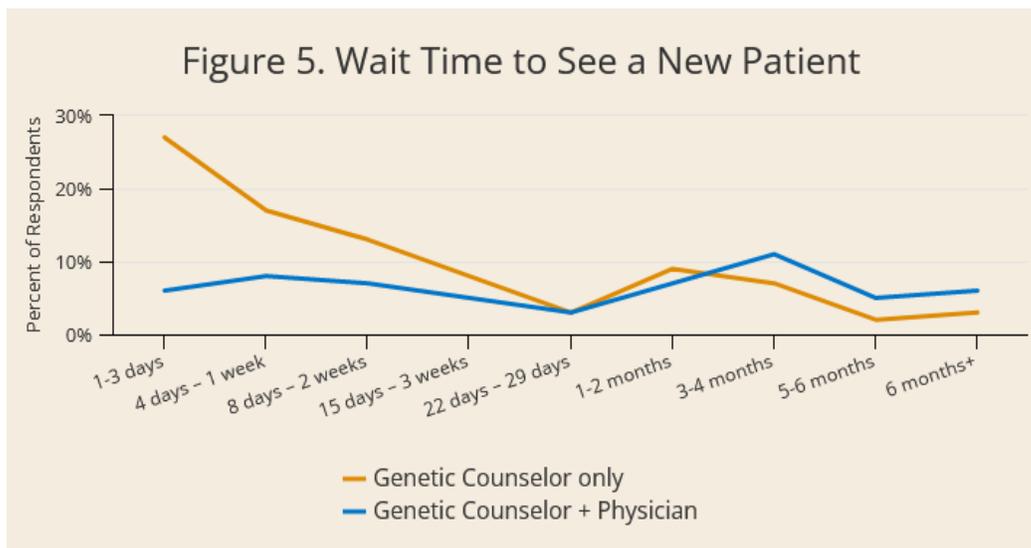
Most respondents reported receiving referrals from various specialties.

Table 6. Specialty of Source of Patient Referrals	N	%
Primary Care (including Family Practice and Internal Medicine)	974	67%
Obstetrics/Gynecology	870	60%
Patient self-referral	839	58%
Medical Genetics/Other Genetic Counselor	709	49%
Gastroenterology	704	49%
Oncology - Adult (all types)	671	46%
Endocrinology	590	41%
Dermatology	578	40%
Hematology	571	40%
Surgery (all types, including breast, colorectal, pediatric, etc.)	564	39%
Cardiology	466	32%
Neurology	457	32%
Urology	457	32%
Perinatology/Maternal Fetal Medicine	443	31%
Reproductive Endocrinology/Fertility/IVF	431	30%

Respondents could select more than one item, so the total will not add up to 100%. Percentages reflect the total number of respondents indicating each item divided by the total number who

Patient Wait Times

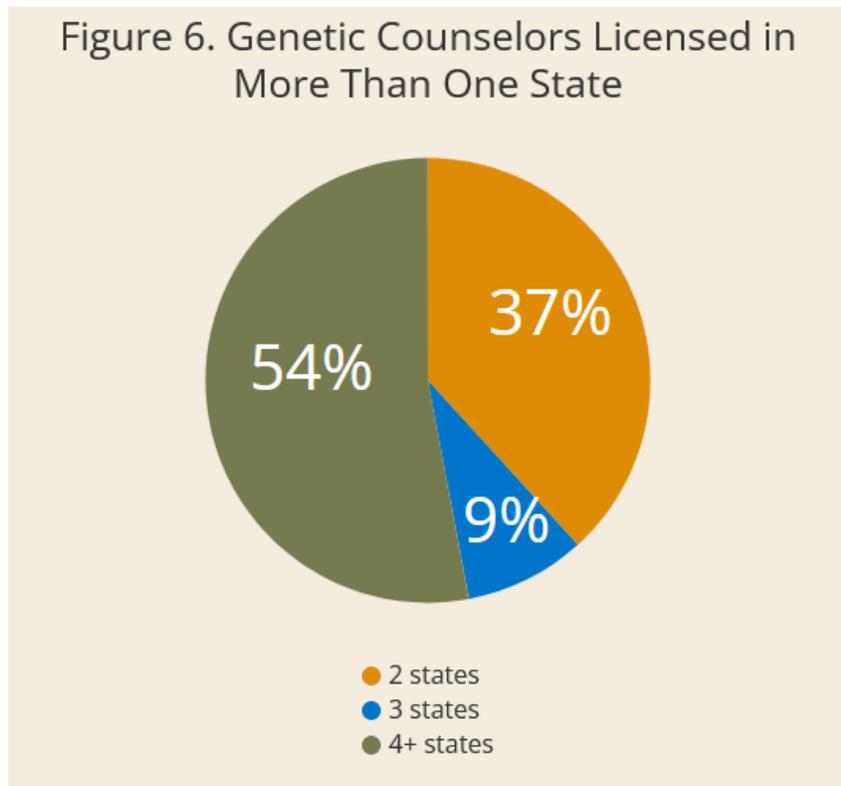
The wait time (defined as the next available appointment) to see only a genetic counselor is significantly less than the wait time to see a genetic counselor accompanied by a physician. For more information, please refer to the *Service Delivery and Access Report*.



Certification and Licensure

Most genetic counselors (90%) who responded to the PSS hold the CGC credential granted by the ABGC. Five percent hold the CCGC credential from the CAGC and one percent hold other certifications or additional certifications⁹.

As of December 31, 2021 there were 31 states issuing genetic counseling licenses. Over half of respondents to the PSS hold a full genetic counseling license (62%) and another 1% hold a provisional or temporary license. Among those who do not hold a license, nine of ten (90%) do not hold a license because licensure is not available in their state. Among genetic counselors who hold a license, 71% are licensed in one state, and 29% are licensed in more than one state.



⁹ Respondents could select multiple certifications, so total is more than 100%.

Salary and Benefits

The average yearly gross salary reported by all full-time genetic counselors who responded to the 2022 PSS was \$102,028.

This is an increase from the 2021 PSS where the average salary reported by all full-time genetic counselors was \$97,976. Comparisons between years must be viewed with caution, however, due to the proportional increase in salaries of those in non-direct patient care positions and mixed positions who participate in the PSS each year.

\$102,028

Average salary for full-time genetic counselors

2022 PSS respondents

Table 7. Full-Time Salaries 2022 PSS	N	Mean	Median	25th Percentile	75th Percentile	90th Percentile
Direct patient care	1,059	\$86,766	\$84,760	\$76,148	\$93,000	\$106,000
Non-direct patient care	622	\$126,864	\$121,000	\$98,000	\$149,350	\$175,765
Mixed position	462	\$103,497	\$99,784	\$85,979	\$116,148	\$135,000
Total	2,143	\$102,012	\$93,000	\$81,000	\$114,291	\$145,000

The average starting salary for a full-time genetic counselor who graduated in 2021 was \$77,602. This is an increase of 1.2% from the starting salaries reported by new graduates in 2020.



The percentages of respondents who had the option to receive specific benefits are shown below. These are the ten benefits that were most frequently reported by respondents as being included in their benefits packages, regardless of whether or not the respondents elected to use the benefit. For more information, including detailed analysis of genetic counselor salaries and the complete list of benefits offered to genetic counselors, please see the *Salary and Benefits Report*.

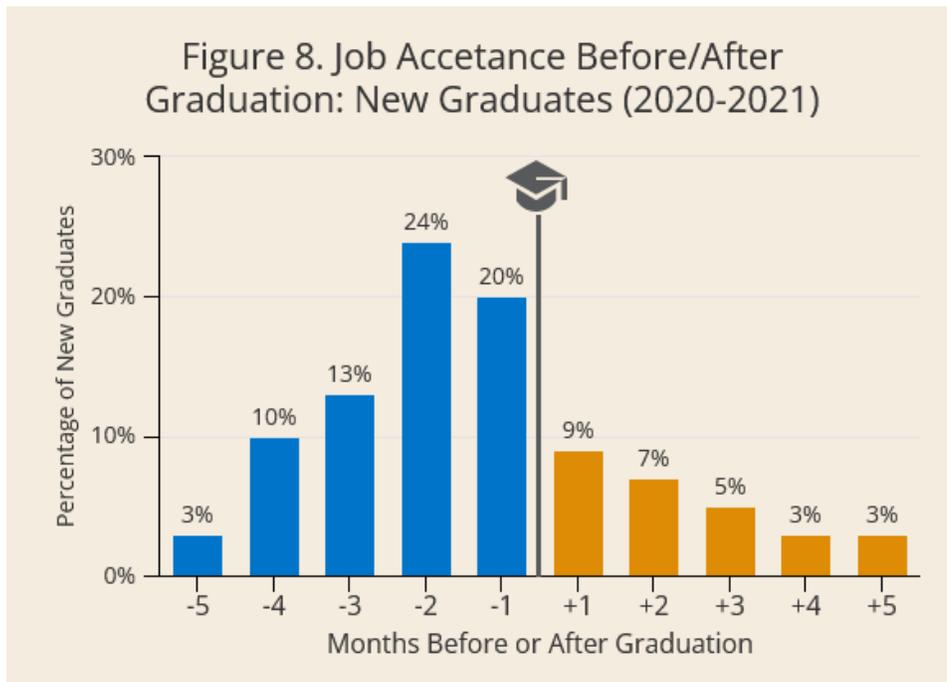
Table 8. Top 10 Benefits by Position	Direct patient care		Non-direct patient care		Mixed position		All Positions	
	N	%	N	%	N	%	N	%
Health insurance	1,237	92%	673	95%	525	93%	2,435	93%
Dental insurance	1,213	91%	665	93%	508	90%	2,386	91%
Life insurance	1,146	86%	625	88%	468	83%	2,239	86%
Vision plan	1,091	81%	629	88%	469	83%	2,189	84%
Disability insurance (short or long term)	1,087	81%	613	86%	465	82%	2,165	83%
Continuing Education/Conference funding	1,071	80%	606	85%	471	84%	2,148	82%
Retirement savings (with employer match)	1,080	81%	600	84%	436	77%	2,116	81%
Accidental death and dismemberment insurance	790	59%	512	72%	368	65%	1,670	64%
Pre-tax expense accounts (childcare, medical)	671	50%	503	71%	329	58%	1,503	57%
Employee Assistance Program	705	53%	455	64%	336	60%	1,496	57%

Respondents could select more than one item, so the total will not add up to 100%. Percentages reflect the total number of respondents indicating each item divided by the total number who responded to the question.

Workforce Trends

Job Opportunities for New Graduates

Approximately three-quarters of 2021 graduates¹⁰ (71%) accepted their first genetic counseling position before graduation, which is consistent with 2020 graduates¹¹ (74%). The 2021 graduates also reported a shorter time period between graduation and acceptance of their new position compared to 2020 graduates. For 2021 graduates who accepted a position after graduation, fifty-five percent (55%) accepted their first position in 2021 within the first two months after graduation, compared to 2020 (48%).



Changes to Position Types

Among the 27% of respondents who reported changing jobs in 2021 (N=768), 46% (N=355) also changed to a different type of position. Most position changes reported on the 2022 PSS were from a direct patient care position to another direct patient care position (N=254, 51% of direct patient care job changers). Genetic counselors also went from direct patient care to non-direct patient care positions (29%) and from direct patient care to mixed positions (20%).

¹⁰ As reported on the 2022 PSS.

¹¹ As reported on the 2021 PSS.

Remote Work

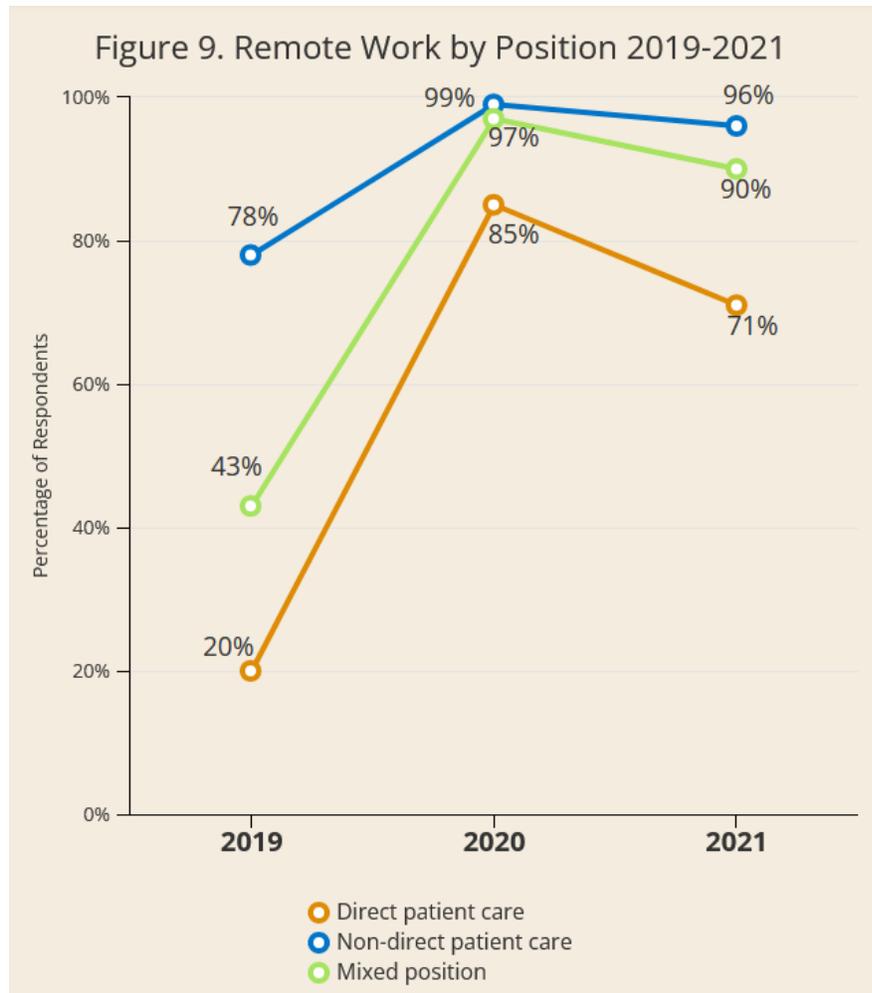
Eighty-two percent of PSS respondents reported working remotely during 2021 either some or all of the time. This compares to 91% in 2020 and just 40% in 2019 (just prior to the pandemic)¹².

Seventy-one percent of respondents who have direct patient care positions reported working remotely in 2021 (versus 85% in 2020 and 20% in 2019). Ninety-six percent of respondents who have non-direct patient care positions reported working remotely (versus 99% in 2020 and 78% in 2019), and ninety percent of respondents in mixed positions worked remotely in 2021 (compared to 97% in 2020 and 43% in 2019).



82%

PSS respondents
worked remotely as
part or all of their
position in 2021



¹² Remote workers comprised 35% of survey respondents in 2019, and 32% in 2018.

Furloughs, Unemployment and Retirement

A total of 43 respondents reported some type of furlough in 2021 (2% of the 2,678 who answered the question)¹³. Among those, 29 (67%) were furloughed from one to ten days, and the rest (33%) more than ten days. More than half of those furloughed were direct patient care providers (58%), followed by non-direct patient care providers (23%) and mixed providers (19%).

Among all 2,859 respondents to the 2022 PSS, 11% report being unemployed at any time between January 2021 and December 2021, with <1% experiencing unemployment for all of 2021. These numbers include respondents who indicated that they graduated from a genetic counseling program in 2021.

Out of 2,859 respondents, 35 (1.2%) reported being retired in 2021. Of those who reported being retired, three-quarters (74%) reported that they are no longer working, 23% were retired but still working, and 3% were in phased retirement.

¹³ This is a significant decrease from 2020 when 10% reported experiencing furloughs.

Changes to Salary and Benefits

Almost all full-time genetic counselors (99%) had either an increase or no change to their pay in 2021, and <1% of genetic counselors had their pay decreased temporarily or permanently during that time. By contrast, in 2020 8% experienced a temporary decrease in pay and 1% a permanent decrease, likely due to the COVID-19 pandemic.

Compared to 2019, a greater percentage of respondents were offered the option to work remotely, back-up daycare or sick child daycare, and paid maternity/parental leave in 2020. These changes have held through 2021.

Fewer respondents were offered partial maternity/parental leave, life insurance, pensions, gym memberships, disability insurance, tuition reimbursement, wellness incentives, continuing education/conference funding, transportation reimbursement, or pre-tax expense accounts. Some changes to benefits can be attributed to the COVID-19 pandemic (i.e., the option to work remotely). For more information about changes to the genetic counseling workforce during the COVID-19 pandemic, please see the previous 2021 *PSS Special Report: Workforce Changes During the Pandemic* and this year's *Workforce Overview report*.

Table 9. Changes to Benefits	2019	2020	2021	Change 2019- 2021
Option to work remotely	36%	45%	54%	+18%
Paid maternity/parental leave – full	26%	29%	30%	+4%
Back up daycare/sick child daycare	12%	15%	14%	+2%
Paid maternity/parental leave – partial	30%	26%	26%	-4%
Life insurance	88%	85%	84%	-4%
Pension	23%	19%	19%	-4%
Gym membership	14%	11%	10%	-4%
Disability (short or long term) insurance	86%	81%	82%	-4%
Tuition reimbursement (for self)	28%	25%	24%	-4%
Wellness incentives	53%	51%	49%	-4%
Continuing Education/Conference funding	86%	81%	81%	-5%
Transportation or transportation reimbursement	22%	18%	15%	-7%
Pre-tax expense accounts (childcare, medical)	64%	59%	56%	-8%

Professional Development

Pathway to Promotion

Forty-one percent of genetic counselors who responded to the PSS reported an established pathway to promotion at their place of employment, and another 10% reported that a pathway to promotion was in progress. A variety of elements were considered for advancement in the defined pathway, including years of experience as a genetic counselor, service to the institution and managerial or supervisory roles. One quarter (25%) of genetic counselors who responded to the 2022 PSS held faculty appointments.

Research Activities and Publications

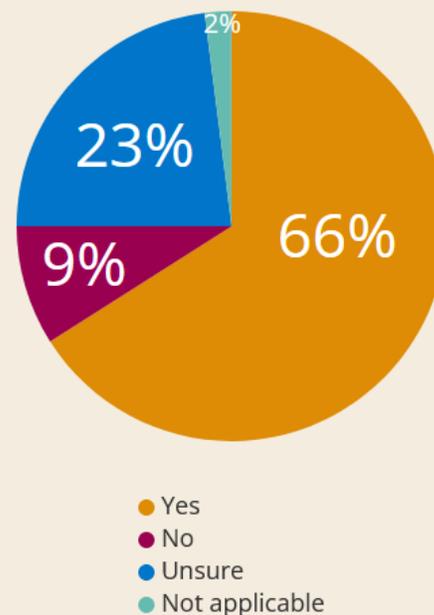
Half (50%) of genetic counselors who responded to the PSS reported being involved in research activities. Nine percent of genetic counselors applied for grant funding, of which 71% were awarded grants. Additionally, well over half (62%) of genetic counselors who responded to the 2020 PSS reported that they authored or co-authored publications and 41% of developed and presented posters and/or platform presentations at a professional meeting in 2020 or 2021.

Professional Activities

Sixty-five percent of genetic counselors reported that they engaged in professional activities in 2020 or 2021, including developing a genetics curriculum, serving on a committee of NSGC, ASHG, ACMG, CAGC or other not-for-profit organization, and developing or organizing a conference, workshop, or symposium for health professionals. Eighty-nine percent of genetic counselors who responded to the PSS were involved in teaching. Audiences included genetic counselors and genetic counseling students, medical students, and physicians.

Two-thirds of genetic counselors (66%) report that their employer supports working on professional activities during working hours.

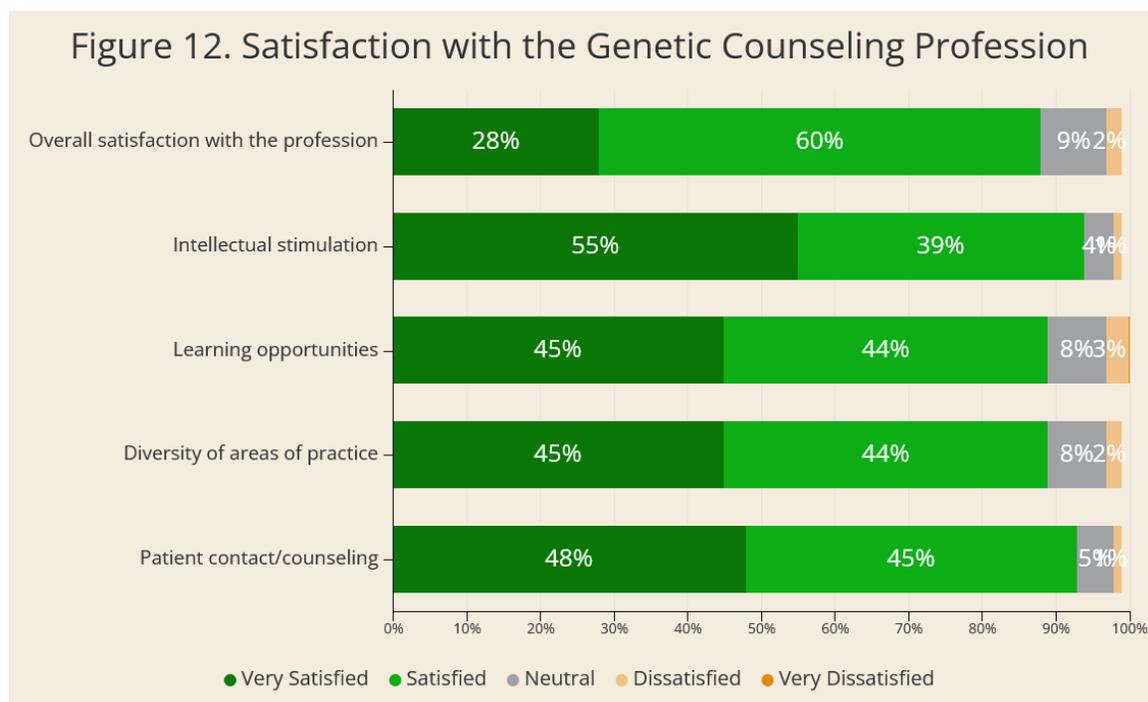
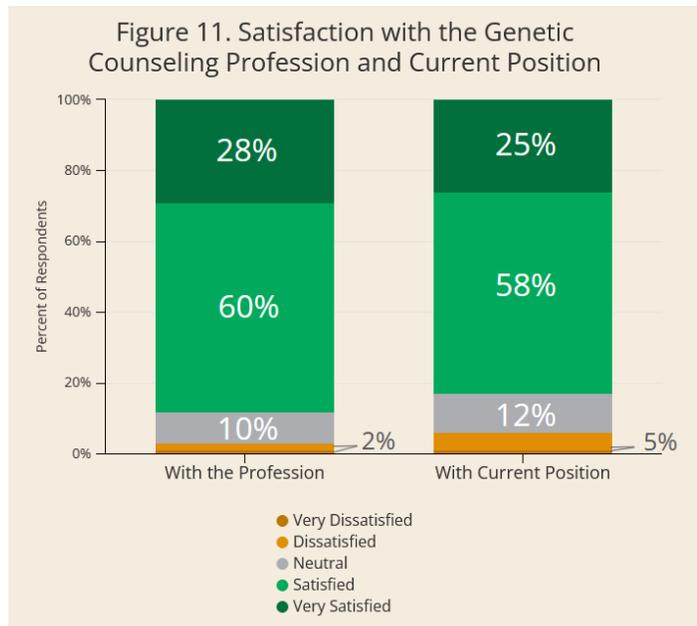
Figure 10. Employer Support for Professional Activities During Work Hours



Satisfaction with the Genetic Counseling Profession

Respondents to the PSS were asked to rate their levels of satisfaction with various aspects of the genetic counseling profession¹⁴. Most genetic counselors who responded to the 2022 PSS (88%) reported they are “satisfied” or “very satisfied” with the genetic counseling profession overall. This high level of satisfaction exists regardless of position type (direct patient care, non-direct patient care, or mixed position). These results are consistent with past administrations of the PSS.

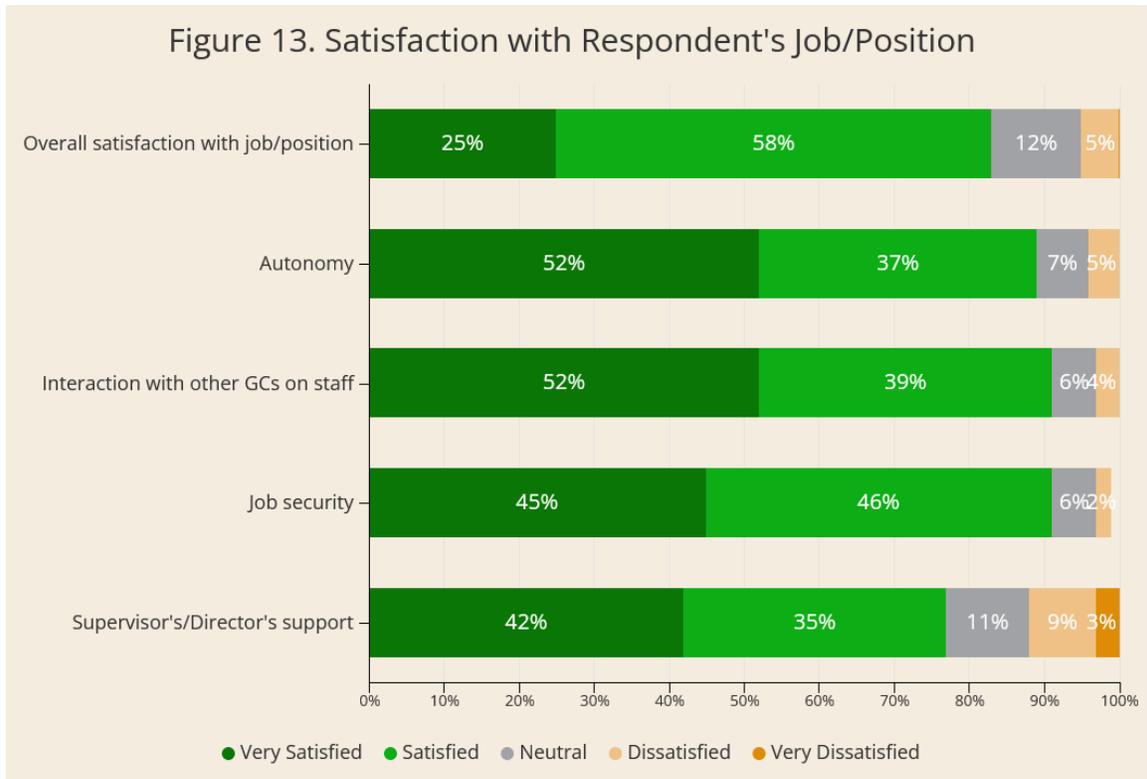
Respondents were most satisfied with the intellectual stimulation and learning opportunities in the profession.



¹⁴ New to the 2022 PSS were satisfaction items “diversity of roles” and “diversity of areas of practice”.

Within their job/positions, genetic counselors were most satisfied with their autonomy, the interaction with other genetic counselors on staff, and job security. For more information please see the *Professional Diversity, Inclusion and Satisfaction Report*.

Figure 13. Satisfaction with Respondent's Job/Position



Data Analysis and Methodology

Survey Administration

The 2022 PSS was administered online by InfoSurv Research, an independent research firm. Hundreds of real-time and server-side validation checks were built into the survey instrument to ensure client-side data accuracy. These validation checks flag data that are significantly out of expected range. To ensure reporting of accurate data, survey respondents were able to answer questions, review previous answers, modify responses, and return to the survey multiple times to complete it at their convenience.

Data Analysis & Methodology

The online administration of the PSS was completed in February 2022. The survey data were independently analyzed by Boston Information Solutions using SPSS¹⁵ version 28. The data were further validated to eliminate inconsistencies, duplicates, outliers, input errors, and other data anomalies. Frequencies and means reported are based on the number of respondents who answered the specific question. Statistical comparisons of group differences, such as T-tests and Chi-Square procedures, are reported as significant if $p < 0.05$. Percentages reported are often rounded for readability.

Data Anonymization and Privacy

Efforts are made to protect genetic counselors' identities, and respondents are informed that they have the option of skipping questions (e.g., salary information). When $N < 10$ responses, additional measures are taken to protect individuals' anonymity. Over the past two decades, the NSGC has adhered to a strict policy whereby no aggregate salary information will be shared when $N < 5$, or in cases where any individual or group of genetic counselors might be personally identified in the PSS reports. Raw PSS survey data are neither shared with genetic counselors engaged in research activities, nor are the data available to employees of NSGC. PSS data are collected and analyzed by professionals with no affiliation to the NSGC and who are not in the genetic counseling community.

Geographic Data

The 2022 PSS asked respondents to provide their home postal codes, their work postal codes, and their employer's postal code (if they work remotely). Descriptive and comparative geographical data seen throughout the series of PSS reports (U.S. states, major metro areas, and Canadian provinces) are derived from the work postal codes reported by genetic counselors.

¹⁵ IBM-SPSS (Statistical Package for the Social Sciences) is a widely used program for statistical analysis in social science.

Salary Data

Information about the salaries of genetic counselors is one of the most frequently used reports of the PSS. To increase the utility of this data, the 2022 PSS asked about respondents' total cash compensation in addition to base salary.

The accuracy and specificity of the compensation analyses depend on the willingness of genetic counselors to divulge this sensitive information and trust that it will be held in the strictest confidence. Over the past two decades, the NSGC has adhered to a strict policy whereby no aggregate salary information will be shared when the number of respondents is fewer than 5 (N<5) or in cases where any individual or group of genetic counselors might be personally identified. When the number of respondents for a specific subcategory is between five or nine (N=5-9), only median and average salary data are reported to maintain privacy of genetic counselors with outlier salary values. Additionally, PSS data are analyzed by professionals with no affiliation to the NSGC and who are not in the genetic counseling community.

Of the 2,859 total respondents to the 2022 PSS, 2,253 (79%) shared salary information¹⁶. Canadian dollars were converted to U.S. dollars based on the CAN-USD exchange rate as of December 31, 2021. The salaries reported by genetic counselors who lived or worked outside the U.S. and Canada were not used in the analyses. Statistical outliers (extremely high and low salaries) were removed before analyses were performed using an Interquartile Range Rule of 3. Unless otherwise noted, salary comparisons are for full-time genetic counselors (part-time salaries were not converted into full-time equivalents). Salary information for part-time workers is reported separately. More detailed information about compensation levels for genetic counselors can be found in the *Salary & Benefits Report*.

Learn More

In addition to the Executive Summary, there are six other reports that document results from the 2022 PSS. Please contact the NSGC if you would like copies of the reports.

1. The ***Demographics and Methodology Report*** provides a high-level overview of the composition of survey respondents to the 2022 PSS.
2. The ***Work Environment Report*** provides information from genetic counselors about the nature of their work, areas of practice, and significant roles.
3. The ***Salary & Benefits Report*** provides detailed analyses of salaries in the genetic counseling profession. The report also provides information about per diem and hourly rates, bonuses and commissions, average raises and extra income, benefits, vacation time, conference funding and employer-funded benefits for genetic counselors.
4. The ***Service Delivery and Access Report*** provides information about how genetic counselors deliver care and the different delivery models used to provide their services.
5. The ***Workforce Overview Report*** examines changes in the job market and the genetic counseling workforce during the COVID-19 pandemic.
6. The ***Professional Diversity, Inclusion and Satisfaction Report*** examines the various facets of diversity, inclusion, and satisfaction with the genetic counseling profession.

¹⁶ 83% of 2018 PSS respondents, 85% of 2019 PSS respondents, 82% of 2020 PSS respondents, and 82% of the 2021 PSS respondents shared their salary information.

Acknowledgements

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The **National Society of Genetic Counselors (NSGC)**, incorporated in 1979, is the leading voice, authority and advocate for the genetic counseling profession, representing more than 4,700 health professionals. NSGC advances the various roles of genetic counselors in health care by fostering education, research, and public policy to ensure the availability of quality genetic services and is committed to ensuring that the public has access to genetic counseling and genetic testing.

For additional information
about genetic counselors, please visit
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