

INDICATORS OF DEMAND FOR NEW SOCIAL WORKERS

# Indicators of Demand for Recent Master's of Social Work Graduates:

**Findings From the 2018 Survey of Social Work Graduates**

George Washington University Health Workforce Institute



### The 2018 Social Work Graduates Survey

In 2018 the George Washington Health Workforce Institute (GW-HWI), in collaboration with and supported by the social work community, particularly the Council on Social Work Education (CSWE) and the National Association of Social Workers (NASW), surveyed recent graduates of masters' of social work (MSW) programs across the country for the second year in a row. This survey will improve understanding of the job market for social workers; the demographic background of new social workers; and their educational and career pathways, employment outcomes, and job satisfaction.

Graduates of more than 50 MSW programs participated in the 2018 survey. The responses from more than 1,400 MSW graduates have been weighted to enhance the representativeness of the sample relative to the population of all 2018 social work graduates. A comprehensive report of survey findings is available in *From Social Work Education to Social Work Practice: Results of the Survey of 2018 Social Work Graduates*. This brief focuses on the employment and job search aspects of the 2018 report and highlights indicators of demand for the new social work graduates.

The survey questions that focused on employment outcomes can be used to assess the relative demand for social work-related roles and responsibilities. This brief presents the indicators of demand for four aspects of social work employment among the 2018 MSW respondents:

1. Employment setting
2. Population groups served
3. Practice area demographics
4. Region of the United States

### The Indicators of the Job Market for New Social Workers

There is no single correct indicator of the job market for new social workers. In reality, many factors influence the experience of each individual searching for a job as they complete their education. Graduates' unique expectations and experiences, for instance, can affect their perspective of the local job market. Therefore, it is important to note that the interaction between graduates' view of the job market and job availability reflect the relationship between supply and demand, not just the actual number of available positions. For example, a high number of job opportunities combined with an excess of applicants in a particular setting may enhance the competitiveness of the market and restrict job availability. On the other hand, fewer job opportunities paired with fewer applicants may result in an easier job search experience and enhanced perception of high job availability. In total, supply and demand factors both contribute to the overall strength of the job market for various social work practice areas and settings.

The Survey of Social Work Graduates includes several questions that provide an indication of various aspects of the job market for new social workers. A full list of questions and description of indicators is provided in the Appendix. In short, the seven indicators presented in this report are as follows:

1. The percentage of respondents who had difficulty finding a position they were satisfied with
2. The percentage of respondents who had to change their plans because of limited social work-related job opportunities
3. The average number of social work-related job applications submitted
4. The average number of social work or social work-related job offers received
5. Respondents' overall assessment of social work or social work-related jobs/opportunities within 50 miles of the site where they completed their social work degree
6. Expected total gross income from a principal position
7. Overall satisfaction with a social work position

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This brief presents the *relative ranking* of responses to these questions as indicators of the job market. For example, in response to the question: “Did you have a difficult time finding a job you were satisfied with?”, an employment setting or practice focus where only 30% of MSWs had a difficult time finding a job would be viewed as being in higher demand than a setting or practice focus where 60% of graduates said they had a difficult time.

We rank the categories within each outcome measure—that is, employment setting, groups served, practice area demographics, and region—along the seven employment-related survey questions. In the relative ranking, demand is represented on a scale from 1 to  $n$  (where 1 represents the highest demand and  $n$  is equal to the number of categories for each outcome measure). All cross-tabulations between outcome measures and indicators of demand are based on weighted survey data. Additional details regarding the calculation of survey weights and survey methodology are provided in the Appendix.

Considered together, these seven indicators provide a picture of relative demand for different social work roles, responsibilities, and practice locations for recent MSW graduates in 2018. Looking forward, future years of social survey work data can be compared to assess the change in demand for social work employment over time.

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### I. Indicators of Demand by Principal Employment

<b>Principal Employment</b>	Search Difficulty	Change of Plans	# Job Applications	# Job Offers	View of Job Market	Starting Income	Job Satisfaction	Index
1. Higher education institutions (N=44)	2	3	1	7	1	6	1	3.0
2. Outpatient health care services (N=161)	3	4	7	3	5	3	4	4.1
3. State, local, or federal government agency (N=169)	4	5	3	10	4	1	6	4.7
4. Nursing or residential care facility (N=25)	5	2	4	1	10	5	8	5.0
5. Hospital in-patient facility (N=85)	8	6	6	6	7	2	3	5.4
6. Rehabilitation facility (N=20)	1	1	9	9	3	10	9	6.0
7. Educational establishment outside of higher education (N=78)	9	7	5	4	8	8	2	6.1
8. Private for-profit facility or business (N=49)	6	8	10	2	9	4	5	6.3
9. Private social work practice (N=43)	7	10	2	5	6	9	9	6.9
10. Private, not-for-profit, tax-exempt, or charitable organization (N=352)	10	9	8	8	2	7	7	7.3

Note: Ranking (1 = high demand, 10 = low demand). Actual question asked is, "In your principal position, who are you (or will you) be working for?"

### Summary of Indicators: Principal Employment Setting

1. Demand for social workers in **higher education institutions** is notably high in terms of job market experience and job satisfaction. Compared to other employment settings, higher education MSWs reported the most positive assessments of the local job market, and the highest ratings of job satisfaction (rank = 1 for each). Recent graduates working in higher education were among the least likely to experience difficulty finding a satisfactory position or to have to change their plans due to a lack of social work-related opportunities (rank = 2 and 3, respectively). On the other hand, MSWs in higher education positions reported moderate income levels (rank = 6) compared to respondents in other social work positions. Although higher education MSWs also reported a relatively low number of job offers (rank = 7), this may reflect the low number of applicants and opportunities in higher education.
2. Demand for social workers in **outpatient health-care services** is relatively high across all indicators. Consistent with positive assessments of the job market, outpatient health-care MSWs received a relatively high number of job offers (rank = 3) and were among the least likely to experience difficulty finding a satisfactory position (rank = 3). Although relatively few MSWs working in outpatient health-care services had to change their plans due to a lack of social work-related jobs (rank = 4), many graduates in outpatient care believed there was an overall lack of social work-related opportunities locally. Perhaps as a result, outpatient care MSWs were relatively more likely to apply to 10 or more jobs. On the other hand, MSWs in outpatient health care reported higher incomes, on average, than respondents in other social work-related positions (apart from those in hospital or government positions).
3. The demand for social work positions in **government agencies** is high based on income: MSWs in government positions reported a higher income, on average, than MSWs in all other social work-related positions. MSWs in government positions also submitted fewer job applications (rank = 3) and were relatively less likely to have trouble finding a satisfactory position or to change their plans due to a lack of social work-related opportunities (rank = 4 and 5, respectively). Despite strong assessments of the job market for social work positions among government social workers, MSWs in government positions reported the lowest number of job offers relative to respondents in other social-worked related positions (rank = 10). Some of the ranking may reflect the fact that some of the respondents returning to previous employers were government employees who may have been supported to get their MSW.

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4. Despite low job satisfaction and poor assessments of the job market for social work positions, social workers in **nursing or residential care facilities** ranked other aspects high. MSWs in nursing or residential care facilities reported the highest number of job offers compared to MSWs in other social work positions. Nursing or residential care MSWs experienced moderate difficulty finding a satisfactory social work-related position (rank = 5) yet were among the least likely to have to change their plans due to a lack of social work-related opportunities (rank = 2).
5. The demand for **hospital in-patient facility** positions is quite high as reflected by job satisfaction (rank = 3) and income (rank = 2). MSWs in hospital in-patient facility positions reported a higher income, on average, than nearly all other social-work related positions (apart from government agencies). However, the availability of jobs for hospital positions indicates a relatively low demand. The overall assessment of the job market and number of job offers are below average for MSWs in hospital in-patient facilities (rank = 6 and 7, respectively). Many hospital in-patient facility MSWs had trouble finding a satisfactory position (rank = 8), and some had to change their plans due to a lack of social work-related opportunities (rank = 6).
6. The demand for social-work related positions in **rehabilitation facilities** is notably high in terms of ease of finding a job. MSWs in rehab positions were the least likely to report having trouble finding a satisfactory position and least likely to report having to change their plans due to a lack of social work-related opportunities (rank = 1 for each indicator). Although MSWs in rehab positions had positive assessments of the job market for social workers (rank = 3), the demand for rehab facility jobs is somewhat limited by the high number of job applications and low number of job offers (rank = 9 for each). Moreover, MSWs in rehab positions reported a lower income, on average, than MSWs in all other social work-related positions (rank = 10).
7. The demand for **educational establishment positions outside higher education** is also low compared to other social work-related positions. Despite high job satisfaction (rank = 2) and a relatively high number of job offers in educational establishments (rank = 4), the assessment of social-work related opportunities among MSWs in these positions is notably low (rank = 8). Many MSWs working in schools and other educational establishments experienced difficulty finding a satisfactory social work-related position (rank = 9) and had to change their plans due to a lack of social-work related opportunities (rank = 7).

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8. The demand for **private for-profit business** positions is relatively high in terms of number of job offers (rank = 2) and income (rank = 4). Although MSWs in private for-profit business positions reported the highest number of job applications, they also had a greater number of job offers compared to nearly all other social-work related positions (apart from nursing or residential care facilities). However, some private for-profit business MSWs had trouble finding a satisfactory position (rank = 6), and many had to change their plans due to a lack of social work-related opportunities (rank = 8).
9. The demand for **private social work practice** positions is relatively low compared to other social work-related positions. Although assessment of the job market and number of job offers are average (rank = 6 and 5, respectively), MSWs in private social work practice reported low job satisfaction and a relatively low income compared to MSWs in other social work positions (rank = 9 for each indicator). Private social work practice MSWs were most likely to report having to change their plans due to a lack of social-work related opportunities (score = 10), and many experienced difficulty finding a satisfactory social-work related position (rank = 7).
10. The number of job offers received by MSWs in **private not-for-profit organizations** is low (rank = 8). Further, private not-for-profit MSWs were the most likely to have trouble finding a satisfactory social work-related position (rank = 10), and many said they had to change their plans due to a lack of social work-related opportunities (rank = 9). Furthermore, private not-for-profit MSWs tended to report relatively low incomes and low job satisfaction (rank = 7 for each indicator). Despite these indicators of low demand, the overall assessment of local job market opportunities is relatively high among MSWs in private, not-for-profit organizations.



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### II. Indicators of Demand by Population Groups Served

Groups Served	Search Difficulty	Change of Plans	# Job Applications	# Job Offers	View of Job Market	Income	Job Satisfaction	Index
1. People with substance abuse issues (N=69)	1	1	1	5	1	4	3	2.3
2. People receiving health care (N=132)	2	2	2	3	5	1	2	2.4
3. School social work (N=99)	3	3	5	2	2	2	1	2.6
4. People with mental health issues (N=263)	5	4	4	1	3	3	5	3.6
5. Children and families (N=367)	4	5	3	4	4	5	4	4.1

Note: Ranking (1 = high demand, 5 = low demand). Actual question asked is, "Which of the following do you consider to be the main focus of work your principal position?" Groups served indicate the main clientele served irrespective of practice setting.

### Summary of Indicators

1. Demand for social workers serving **people with substance abuse issues** is high along all indicators of demand related to job availability. MSWs serving clients with substance abuse issues were the least likely to experience difficulty finding a job, and the least likely to change their plans due to limited social work-related opportunities (rank = 1 for each). MSWs working in substance abuse submitted the fewest number of job applications and received a relatively low number of job offers. Despite relatively low reported income, MSWs working with individuals with substance abuse issues reported high job satisfaction compared to MSWs working with other clientele (rank = 3).

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2. Demand for social workers serving **people receiving health care** is high in terms of income and job satisfaction but moderate-to-low in terms of job availability. MSWs working in health care reported the highest income compared to MSWs serving other clientele. Despite poor assessments of job availability (rank = 5), MSWs working with individuals receiving health care experienced relatively little difficulty finding a satisfactory position, and few said they had to change their plans due to limited social work-related opportunities (rank = 2 for each).
3. Demand for social workers involved in **school social work** is relatively high across some indicators of demand, especially in terms of job satisfaction and income (rank = 1 and 2, respectively). Although MSWs working in schools had to apply to a greater number of jobs, they also received more jobs offers (on average). Compared to MSWs working with other clientele, MSWs involved in school social work experienced moderate difficulty finding a satisfactory position, and some had to change their plans due to limited social work-related opportunities (rank = 3 for each).
4. In terms of average job offers received, the demand for social workers serving **people with mental health issues** is high (rank = 1). Despite this, MSWs working with people with mental health issues offered relatively poor assessments of the local job market. Moreover, many MSWs serving individuals with mental health issues experienced difficulty finding a satisfactory position and had to change their plans due to limited social work-related job opportunities (rank = 5 and 4, respectively). Compared to MSWs serving other clientele, MSWs working in mental health tended to report low income and very low job satisfaction. This may reflect the availability of jobs that are low paying and/or not in settings or areas where graduates want to work.
5. Demand for social workers working with **children and families** is relatively low across all indicators of demand. Although MSWs working with children applied to fewer jobs, on average, they also received few jobs offers compared to MSWs working with other clientele (rank = 4). Many MSWs working with children and families experienced difficulty finding a satisfactory position or had to change their plans due to limited social work-related opportunities (rank = 5). Moreover, MSWs serving children and families had the lowest reported income and relatively low job satisfaction.

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### III. Indicators of Demand by Practice Area Demographics

Practice Area Demographics	Search Difficulty	Change of Plans	Job Applications	Job Offers	View of Job Market	Income	Job Satisfaction	Index
1. Medium sized city (N=230)	3	1	4	2	2	6	2	2.9
2. Semirural (N=109)	2	4	3	4	4	2	1	2.9
3. Large city (N=189)	4	3	5	3	1	1	4	3.0
4. Suburb of a large or medium city (N=128)	6	1	6	1	3	5	5	3.9
5. Small city (N=183)	1	5	2	5	5	4	6	4.0
6. Rural (N=36)	5	5	1	6	6	3	3	4.1

Note: Ranking (1 = high demand, 6 = low demand). Actual question asked is, "Which best describes the demographics of the principal area in which you are/will be practicing?"

#### Summary of Indicators

1. Demand for recent MSW graduates appears to be highest in **medium sized cities**. MSWs working in medium sized cities reported high job satisfaction and a high number of job offers. Moreover, MSWs in medium sized cities offered positive assessments of the local job market (rank = 2 for each indicator). Correspondingly, MSWs working in medium sized cities experienced little difficulty finding a satisfactory social work job; they were also the least likely to report having to change their plans due to limited social work-related opportunities (rank = 1). On the other hand, MSWs working in medium sized cities tended to report lower incomes compared to MSWs in other demographic areas (rank = 6).

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2. Demand for MSW graduates is also high in **semirural areas**, particularly in terms of income and job satisfaction (rank = 2 and 1, respectively). Although few MSWs working in semirural areas had trouble finding a satisfactory position, many reported they had to change their plans due to limited social work-related opportunities. Consistent with relatively poor assessments of the local job market, MSWs in semirural areas received a low number of job offers, on average (rank = 4).
3. Demand for MSW graduates is high in **large cities** in terms of income and availability of jobs (rank = 1 for each indicator). MSWs working in large cities generally offered positive assessments of the local job market for social workers. Although MSWs practicing in large cities tended to apply to a greater number of jobs, on average, they also received a high number of job offers (rank = 3). Recent MSW graduates working in large cities experienced moderate difficulty finding a satisfactory position, and some had to change their plans due to limited social work-related opportunities.
4. Demand for recent MSW graduates is moderate in **suburbs of large or medium cities**. Relative demand is high in terms of job availability and number of job offers. However, MSWs working in the suburbs experienced considerable difficulty finding a satisfactory position. They also applied to a greater number of jobs compared to MSWs practicing in other areas (rank = 6 for each). Moreover, MSWs working in suburbs reported relatively low incomes and low job satisfaction (rank = 5 for each).
5. Demand for MSWs working in **small cities** is high in terms of ease of job search experience but relatively low in terms of job availability and satisfaction. Although MSWs working in small cities experienced the least difficulty finding a position and applied to fewer jobs on average (rank = 1 and 2, respectively), they reported the lowest job satisfaction and relatively low income (rank = 6 and 5, respectively). Recent MSW graduates working in small cities offered poor assessments of the local job market, and many had to change their plans due to limited social work-related opportunities (rank = 5 for each).
6. Demand for MSWs appears to be lowest in small **rural areas**. Although MSWs working in rural areas applied to fewer jobs, on average, they also received the lowest number of job offers (rank = 6). A majority of MSWs in rural areas had trouble finding a satisfactory position, and many had to change their plans due to limited social work-related opportunities. As a result, MSWs working in rural areas offered poor assessments of the local job market. Despite low job availability, MSWs working in rural areas reported moderate incomes and job satisfaction (rank = 3 for each indicator).

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### IV. Indicators of Demand by Region

Region	Search Difficulty	Change of Plans	Job Applications	Job Offers	View of Job Market	Income	Job Satisfaction	Index
1. New England (N=318)	2	2	3	1	2	2	7	2.7
2. Great Lakes (N=275)	3	3	4	2	1	6	5	3.4
3. Mid- and North Central (N=107)	4	1	1	8	6	5	2	3.9
4. Northwest (N=36)	1	4	2	6	8	7	1	4.1
5. West (N=165)	6	8	6	5	3	1	4	4.7
6. Mid-Atlantic (N=170)	5	7	8	3	7	3	3	5.1
7. Southeast and South Central (N=206)	7	6	5	4	4	8	6	5.7
8. Northeast (N=126)	8	5	7	7	5	4	8	6.3

Note: Ranking (1 = high demand, 8 = low demand).

### Summary of Indicators

1. Demand for social workers in the **New England** region is notably high across all indicators of demand. New England MSWs received the highest number of job offers, on average, and were among the least likely to experience difficulty finding a social work position (rank = 1 and 2, respectively). Accordingly, New England MSWs offered very positive assessments of the local job market. Despite reporting relatively high incomes (rank = 2), New England MSWs reported the lowest job satisfaction relative to MSWs in other regions.

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2. Demand for social workers in the **Great Lakes** region is very high in terms of job availability. Great Lakes MSWs reported positive assessments of the local job market and received a high number of job offers compared to MSWs in other regions (rank = 1 and 2, respectively). MSWs in the Great Lakes region also experienced little difficulty finding a satisfactory social work position, and few reported that they had to change their plans due to limited social work-related opportunities. On the other hand, Great Lakes MSWs tended to report relatively low incomes and low job satisfaction (rank = 5 and 6, respectively).
3. Indicators of demand for social workers in the **Mid-Central and North Central** regions is somewhat mixed. Although Central region MSWs applied to fewer social work jobs (on average) compared to MSWs in any other region (rank = 1), they also received fewer job offers (rank = 8). Unsurprisingly, Central region MSWs offered poor assessments of the local job market (rank = 6). Moreover, despite high job satisfaction (rank = 2) and moderate income levels, many MSWs in the Central region said they experienced difficulty finding positions they were satisfied with (rank = 4).
4. Demand for social workers in the **Northwest** region appears to be mixed. Although Northwest MSWs offered very poor assessments of the local job market (rank = 8), they were the least likely to experience difficulty finding a satisfactory social work position (rank = 1). However, some MSWs in the Northwest region said they had to change their plans due to limited social work-related opportunities. Despite reporting relatively low incomes (rank = 7), Northwest MSWs had the highest reports of job satisfaction (rank = 1).
5. Demand for social workers in the **West Coast** is high in terms of income, low in terms of job availability, and moderate for job satisfaction. West coast MSWs had the highest reported income paired with moderate job satisfaction (rank = 4). However, recent graduates in the West Coast experienced difficulty finding a job they were satisfied with, and many had to change their plans due to limited social work-related opportunities (rank = 6 and 8, respectively). Moreover, West Coast MSWs applied to more jobs (on average) than MSWs in other regions but received fewer jobs offers. Despite poor job search experiences and low job availability, West Coast region MSWs had relatively positive assessments of the local job market.

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6. Demand for social workers in the **Mid-Atlantic** region is relatively low in terms of job availability and job search experience. Although Mid-Atlantic region MSWs received a relatively high number of job offers, on average, many had to change their plans due to limited social work-related opportunities (rank = 7). Notwithstanding relatively high reported income and job satisfaction (rank = 3 for each indicator), Mid-Atlantic region MSWs had a difficult time finding a satisfactory position in their job search process. MSWs in the Mid-Atlantic region applied to more jobs, on average, compared to MSWs in any other region (rank = 8). Consistent with these experiences, Mid-Atlantic region MSWs offered relatively negative assessments of the local job market.
7. Demand for social workers in the **Southeast and South Central** regions is relatively low across all indicators. Although assessments of the local job market and average number of job offers are moderate, reported income and job satisfaction are notably low (rank = 8 and 6, respectively). Many Southern region MSWs applied to many social work jobs and had trouble finding a position they were satisfied with (rank = 5 and 7, respectively). Moreover, many MSWs in the Southern region said they had to change their plans due to limited social work-related opportunities.
8. Demand for social workers in the **Northeast** region is also low across all indicators. Northeast region MSWs applied to many social work-related jobs but experienced the greatest difficulty finding a position they were satisfied with (rank = 7 and 8, respectively). Many recent MSW graduates in the Northeast region said they had to change their plans due to limited social-work related jobs and opportunities. Consistent with the low number of reported job offers in the Northeast region (rank = 7), Northeast MSWs had relatively poor assessments of the local job market. Despite moderate levels of reported income, Northeast region MSWs had the lowest reports of job satisfaction (rank = 8).

### V. Appendix: Demand Indicators, Survey Methodology, and Survey Weights

#### Demand Indicators

##### 1. Job Search Difficulty

**Survey Question:** “Did you have difficulty finding a position that you were satisfied with?”

**Options:** “Yes,” “No”

Demand Indicator 1 assesses the demand for social workers and social work-related jobs in terms of job search difficulty. We assume that difficulty finding a job is negatively associated with demand. That is, increased difficulty finding a position probably corresponds with lower demand for that position (or setting, practice focus, region, etc.). An individual could encounter difficulty for a variety of reasons, including an overall lack of jobs, jobs that do not pay well or are in settings graduates are not interested in, and so forth. Expectations will also influence the responses to this question.

##### 2. Change of Plans

**Survey Question:** “Did you have to change your plans because of limited social work-related job opportunities?”

**Options:** “Yes,” “No”

Demand Indicator 2 assesses the demand for social workers and social work-related jobs in terms of employment opportunities. We assume that a change of career plans due to limited social work-related opportunities is negatively associated with demand for a given employment setting, practice focus, demographic area, or region. This question is probably correlated with Demand Indicator 1.



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### 3. Number of Job Applications

**Survey Question:** “How many social work or social work-related jobs did you apply for (excluding further education or training positions)?”

**Options:** “None,” “1,” “2,” “3,” “4,” “5,” “6–10,” “Over 10”

Demand Indicator 3 assesses the demand for social workers and social work-related jobs in terms of the application process for social work jobs. We assume that a higher number of job applications corresponds with lower demand for a given setting, practice focus, practice area, or region. That is, graduates perceiving a limited or competitive job market are likely to submit more applications. Conversely, applicants may submit fewer applications because positions are more plentiful or easier to find. This demand indicator is calculated by converting the job applications question into a numeric categorical variable. “None” is assigned a value of 0, “6–10” is assigned the mean value of 8, and “Over 10” is assigned the value of 11. We then take mean value of job applications for each category of our four outcome measures to find the average number of job applications submitted for each type of job setting, practice focus, practice area, or region.

### 4. Number of Job Offers

**Survey Question:** “How many social work or social work-related jobs offers did you receive (excluding further education or training positions)?”

**Options:** “None,” “1,” “2,” “3,” “4,” “5,” “6–10,” “Over 10”

Demand Indicator 4 assesses the demand for social workers and social work-related jobs in terms of job offers. We assume that a higher number of job offers corresponds with higher demand for a given setting, practice focus, practice area, or region. Conversely, low demand jobs likely correspond with fewer offers because jobs are less available or more difficult to find. This demand indicator is calculated by converting the job offers question into a numeric categorical variable.

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“None” is assigned a value of 0; “6–10” is assigned the mean value of 8; and “Over 10” is assigned the value of 11. We then take the mean value of job offers for each category of our four outcome measures to find the average number of job offers received for each type of job setting, practice focus, practice area, or region.

### 5. Assessment of the Local Job Market

**Survey Question:** “What is your overall assessment of social work or social work-related jobs/opportunities within 50 miles of the site where you took your social work degree?”

**Options:** “No jobs,” “Very Few Jobs,” “Few Jobs,” “Some Jobs,” “Many Jobs,” “Unknown”

Demand Indicator 5 assesses the demand for social workers and social work-related jobs based on the MSWs’ views of the local job market. We assume that poor perceptions of the local job market correspond with low demand for a given position, job type, or area. For this demand indicator, we convert the job market question into a binary variable indicating a poor assessment of the job market (“No jobs,” “Very few jobs,” or “Few jobs”) versus a positive or neutral assessment of the job market (“Some jobs,” “Many jobs,” “Unknown”).

### 6. Expected Total Gross Income

**Survey Question:** “What is your expected total gross income from your principal position (the one you spend the most time in)?”

**Options:** “Less than \$10,000,” “\$10,000 to \$14,999,” “\$15,000 to \$19,999,” “\$20,000 to \$24,999,” “\$30,000 to \$34,999,” “\$35,000 to \$39,999,” “\$40,000 to \$44,999,” “\$45,000 to \$49,999,” “\$50,000 to \$54,999,” “\$55,000 to \$59,999,” “\$60,000 to \$64,999,” “\$65,000 to 69,999,” “\$70,000 to \$74,999,” “\$75,000 to \$79,999,” “\$80,000 to \$84,999,” “\$85,000 to \$89,999,” “\$90,000 to \$94,999,” “\$95,000 to \$99,999,” “\$100,000 to \$104,999,” “\$105,000 to \$109,999,” “\$110,000 to \$114,999,” “\$115,000 to \$119,999,” “\$120,000 to \$124,999,” “\$125,000 to \$129,999,” “\$130,000 to \$134,999,” “\$135,000 to \$139,999,” “\$140,000 to \$144,999,” “\$145,000 to \$149,999,” “\$150,000 or more”

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Demand Indicator 6 assesses the demand for social workers and social work-related jobs in terms of MSWs' expected income. In general, we assume that higher incomes are associated with high-demand jobs and lower incomes are associated with low-demand jobs. The income indicator is calculated by taking the midpoint of each income category (e.g., \$10,000 to \$14,000 = \$12,500).

### 7. Satisfaction With Social Work Job

**Survey Question:** "What is your overall level of satisfaction with your current positions (or the one(s) you are about to start)?"

**Options:** "Very Satisfied," "Somewhat Satisfied," "Somewhat Dissatisfied," "Very Dissatisfied"

Demand indicator 7 assesses the demand for social workers and social work-related jobs in terms of job satisfaction. We assume that if respondents can find jobs they are satisfied with, the job market was good for them. For this demand indicator, we convert the overall job satisfaction question into a binary variable indicating satisfaction ("Very Satisfied" and "Somewhat Satisfied") versus dissatisfaction with a current position ("Somewhat Dissatisfied" and "Very Dissatisfied").

### Survey Methodology

The target group for the survey was students graduating with a social work degree in 2018, including bachelor of social work (BSW) and equivalent degrees such as BASW, and MSW and equivalents such as Master of Social Service (MSS), Master of Science in Social Administration (MSSA), or Master of Science in Social Work (MSSW). The survey was conducted in early fall to allow time for spring graduates to have searched for employment. The survey captured students graduating between January and August 2018. All accredited social work programs in the United States were invited to participate in the survey.

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When fielding its surveys GW HWI uses REDCap™ survey software, which can establish a unique survey link for each participant via e-mail to prevent duplicate responses and enable the sending of survey reminders only to those who have not yet responded. Although a few schools were able to provide GW HWI with e-mail addresses from their records, in most instances student e-mail addresses were obtained through schools forwarding an invitation with a REDCap public Web link to their students in May, June, and July 2018 that enabled interested students to sign up for the survey in advance and provide an e-mail address that would still be valid when the survey went live in late August. To maximize the number of responses, a \$20 incentive was offered for the first 1,100 MSWs and 400 BSWs to complete the survey. Lists of survey registrants were sent to the schools from which they graduated for confirmation of graduation status. REDCap was then used to conduct the survey via unique Web links e-mailed to each of almost 2,500 confirmed registrants. The survey was launched at the end of August 2018 and closed after 4 weeks with 1,780 responses. Data cleaning and exclusion of individuals who did not enter their degree program information reduced the final figure to 1,716 valid responses, for a response rate of 68.9%.

### Survey Weights

Generally, post-stratification weights are constructed by calculating the ratio of the population proportion of the weighting variable and the sample proportion of the weighting variable. The sample proportion comes from our 2018 Survey of Social Work Graduates, and the population proportion is derived from the 2018 CSWE membership. The survey contains multiple characteristics that we want to balance with the overall population. We therefore construct weights using four variables:

1. Auspice: the institutional auspice or sponsorship (e.g., private school versus public school) of the college or university containing the respondent's social work program
2. Region: the region where the social work program presides (e.g., Mid-Atlantic region, New England region)
3. Race: respondent's race (e.g., Black, White, Asian)
4. Ethnicity: specifically, ethnicity (i.e., Hispanic versus non-Hispanic)

## INDICATORS OF DEMAND FOR NEW SOCIAL WORKERS

Given our desire to weight on four characteristics, we construct survey weights using a manual iterative strategy. We compute each of the four weights sequentially over three cycles, for a total of 12 iterations. First, we compute the *auspice* weight (Weight A), weight the data using Weight A, and generate the weighted frequencies for *region*. Next, we compute the *region* weight (Weight B), weight the data using Weight A × Weight B, and then generate the weighted frequencies for *race*. Third, we compute the *race* weight (Weight C), weight the data using Weight A × Weight B × Weight C, and generate the weighted frequencies for *ethnicity*. Finally, we compute the *ethnicity* weight (Weight D), which completes the first cycle (the first four iterations).

For the next cycle we re-compute the auspice weight (Weight A') using all four weights from the first round (Weight A × Weight B × Weight C × Weight D) and continue the iterative process through Weight D'. This process is repeated for a total of three cycles and 12 iterations. The resulting data is therefore weighted by Weight A'' × Weight B'' × Weight C'' × Weight D'' until the weighted frequencies and population frequencies converge. The final survey weight is equal to the product of all 12 weights.

First Cycle	Second Cycle	Third Cycle
Weight A (auspice)	Weight A' × Weight A × Weight B × Weight C × Weight D	Weight A'' × Weight A' × Weight B' × Weight C' × Weight D' × Weight A × Weight B × Weight C × Weight D
Weight A × Weight B (auspice × region)	Weight A' × Weight B' × Weight A × Weight B × Weight C × Weight D	Weight A'' × Weight B'' × Weight A' × Weight B' × Weight C' × Weight D' × Weight A × Weight B × Weight C × Weight D
Weight A × Weight B × Weight C (auspice × region × race)	Weight A' × Weight B' × Weight C' × Weight A × Weight B × Weight C × Weight D	Weight A'' × Weight B'' × Weight C'' × Weight A' × Weight B' × Weight C' × Weight D' × Weight A × Weight B × Weight C × Weight D
Weight A × Weight B × Weight C × Weight D (auspice × region × race × ethnicity)	Weight A' × Weight B' × Weight C' × Weight D' × Weight A × Weight B × Weight C × Weight D	Weight A'' × Weight B'' × Weight C'' × Weight D'' × Weight A' × Weight B' × Weight C' × Weight D' × Weight A × Weight B × Weight C × Weight D
		<b>= Survey Weight</b>