

**DIRECT SUPPORT PROFESSIONAL VACANCIES IN THE  
INTELLECTUAL DISABILITY FIELD: A STUDY OVER TIME**

Scott Spreat  
Woods Research Institute

**Abstract**

Data collected in Pennsylvania USA over a four year time period suggest a worsening of the workforce crisis within the intellectual disability field. It was reported that almost 20% of Direct Support Professional positions were vacant. The costs of tolerating such a high rate of vacant positions are estimated.

**Keywords:** intellectual disability; workforce crisis; Direct Support Professional; vacancies

**Introduction:**

The Intellectual Disability/Autism field cannot hire a sufficient number of qualified Direct Support Professionals to meet the demand. Recent research (Spreat, 2019) suggests that as many as one in five Direct Support Professional positions in Pennsylvania are currently vacant, and annual turnover approaches 40%. A workforce crisis has been publicly pronounced by both the American Association on Intellectual and Developmental Disabilities (2016) and the President's Committee on People with Intellectual Disabilities (2012). While one may argue whether a long standing staffing problem is properly called a "crisis" (Hewitt, 2013), it is clear that agencies that support individuals who have intellectual disability are challenged to hire sufficient numbers of competent staff.

Some contributing factors to this workforce crisis may be longer life spans for people with intellectual disability, the increasing support needs of the aging Baby Boomer generation, and the current availability of better paying jobs. One might also note that group homes, the dominant residential model in the intellectual disability industry since 1991, tend to be more labor intensive in terms of Direct Support Professionals than many state developmental centers. Less frequently mentioned as a significant contributing factor (Spreat, 2021) is the practice of governmental agencies to set, or fix, the price they will pay for Intellectual Disability supports and services.

Fixed prices for supports and services limit the ability of provider agencies to respond to market conditions in order to attract more staff. Note that provider agencies already operate on an unhealthy 1.0% to 1.5% margin between revenue and expenses (Spreat, 2017). Without control over the prices they can charge for their services, they have limited opportunity to adequately support their employees. They are unable to respond to market conditions. In economic theory, price is supposed to create equilibrium between supply and demand (Pettenger, 2017). When demand is high, prices must go up if needs are to be met. When price is constrained in any way, shortages will result. Under the government controlled price model, shortages of Direct Support Professionals should hardly be surprising.

Political efforts to increase Direct Support Professional pay to the level of a "living wage" are utilitarian. The notion of a "living wage" lends an emotional element to the appeal, but it must be recognized that even if rates were to be increased to the level of a "living wage" today, the continued practice of fixing prices by the government is likely to ensure that the same problem of a workforce crisis will emerge eventually. One must also recognize that a "living wage" might not be the wage that establishes equilibrium between supply and demand. It may be insufficient to fill positions, or it may constitute an overpayment.

The dependent measure of interest should focus on the number of open positions rather than the hourly wage, per se. Open positions jeopardize the welfare of the people that provider agencies are pledged to support and serve. Price (i.e., wages) is that which is supposed to create a balance between supply and demand for the workforce. In the Intellectual Disability/Autism field, the problem is that while wages have kept up with inflation (Spreat, 2020), demand for Direct Support Professionals has increased at a greater rate. Wages need to be increased to achieve equilibrium between the supply of Direct Support Professionals and the demand for Direct Support Professionals. More importantly, prices must be freed to respond to market demands, rather than fixed by governmental entities (Spreat, 2021).

Much of the research on the intellectual disability workforce has focused on the hourly wage paid to Direct Support Professionals rather than the issue of vacant positions. This is reasonable given the empirical linkage between hourly wage and turnover (Larson, Lakin, & Bruininks, 1998). Early research (Braddock & Mitchell, 1992) reported a mean hourly wage of \$5.97 for Direct Support Professionals who worked in community settings. At this time, the mean hourly wage in the United States was \$10.79 (Data 360, undated). In subsequent research, Durgin (1999) reported a mean hourly wage of \$8.13 among Pennsylvania Direct Support Professionals in 1999. Hewitt, Larson, & Lakin (2000) reported an hourly wage of \$8.81, and Polister, Lakin, & Prouty (2003) reported a comparable \$8.68 per hour. An ANCOR study (2009) reported a mean hourly wage of \$10.14. Subsequent to the 2008 recession, Bogenschutz, Hewitt, Nord, & Hepperlen (2014). reported an annual wage of \$11.26. Clearly, hourly wages have increased over time for Direct Support Professionals, and this increase modestly exceeded inflation (Bureau of Labor Statistics, 2013). Despite this increase, Direct Support Professionals are paid less than a "living wage," many qualify for welfare (Torres, Spreat, & Clark, 2017), and positions appear increasingly vacant.

The number of vacant Direct Support Positions has been a secondary variable in a number of studies, but is frequently cited in lobbying efforts. In 2000, Hewitt, Larson, & Lakin (2000) reported an 8.2% vacancy rate among Direct Support Professionals. A national survey (ANCOR, 2001) reported a vacancy rate among Direct Support Professionals of 10.8%. More recently, the National Core Indicator project (NCI, 2019) reported an 11.2% vacancy rate among Direct Support Professionals in a multi-state survey of staff stability (ranging from 5.5% to 15.9%). While these numbers may appear less than overwhelming, note that a 10% vacancy rate will increase overtime costs by about 4%, assuming a 28% benefit package.

The purpose of this study is to examine Direct Support Professional vacancies in Pennsylvania intellectual disability programs over a five year period. The specific research question addresses

whether vacancies in the Direct Support Professional position have changed over a four to five year period. The initial study was conducted by PAR, a provider association, while the remaining three were sponsored by a consortium of seven Pennsylvania provider associations. These four studies afford an opportunity to examine Direct Support Professional vacancies over time. Both cross-sectional and longitudinal analyses will be presented. In addition to the analysis of vacancies over time, the study will attempt to examine the relationship between vacancies and several broader economic indicators.

## Methods

### Survey Participants

The first of the Pennsylvania surveys was sponsored by a single provider association. Sixty-five (65) members of the PAR provider association participated in this survey. The three subsequent surveys were sponsored by a collaboration of seven Pennsylvania provider associations, and these latter surveys drew an average of 153 respondents. Across the four surveys, the responding agencies represented all regions of Pennsylvania and employed an average of over 30,000 Direct Support Professionals in each study.

### Instrumentation

The survey instruments were largely the same over the four surveys, and copies are available from PAR in Lemoyne, PA. Of particular note for this study, vacancy rate was calculated using the following formula:

$$\frac{\text{Number of vacant positions}}{\text{(Number of filled positions + number of vacant positions)}}$$

## Results

The cross sectional analysis afforded the use of the greatest amount of data, encompassing approximately 55% of those individuals who are employed as Direct Support Professionals in the Pennsylvania intellectual disability industry. Recorded vacancy rates were 10.6% in 2015, 12.0% in 2017, 20.4% in 2018, and 19.4% in 2019. Data were not collected in 2016, however, the 2015 data were collected late in the year. Rather than a consistent linear trend of any sort, there appeared to be a jump in level of vacancies between the second and third surveys. These vacancy rates for Direct Support Professionals are depicted in Figure 1.

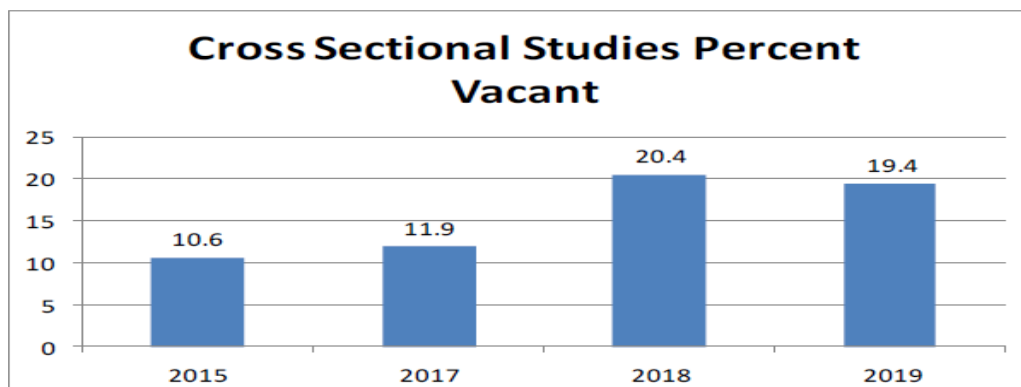


Figure 1. Direct Support Professional Vacancy Rates over Time

Given the large sample sizes, the use of these four snapshots as an index of a trend over time is perhaps forgivable. Certainly, there is considerable overlap of respondents in the four samples, but the samples are not equivalent. It could be misleading to attempt to interpret these data as if they represent a longitudinal study. To attempt to address that concern, we were able to identify 25 agencies that responded to each of the four surveys. Note that the smaller initial survey set a ceiling on the number of agencies that might be included in this longitudinal analysis. It also introduced a representational bias in favor of agencies that belong to the PAR provider association.

The 25 agencies included in the longitudinal analysis employed an average of 336 FTE Direct Support Professionals across the four years of study. The figure below depicts the vacancy rate for Pennsylvania Direct Support Professionals across the four studies. Given that each respondent contributed data to each survey, this is arguably the best estimation of vacancy rate over time. These data are presented in the figure below:

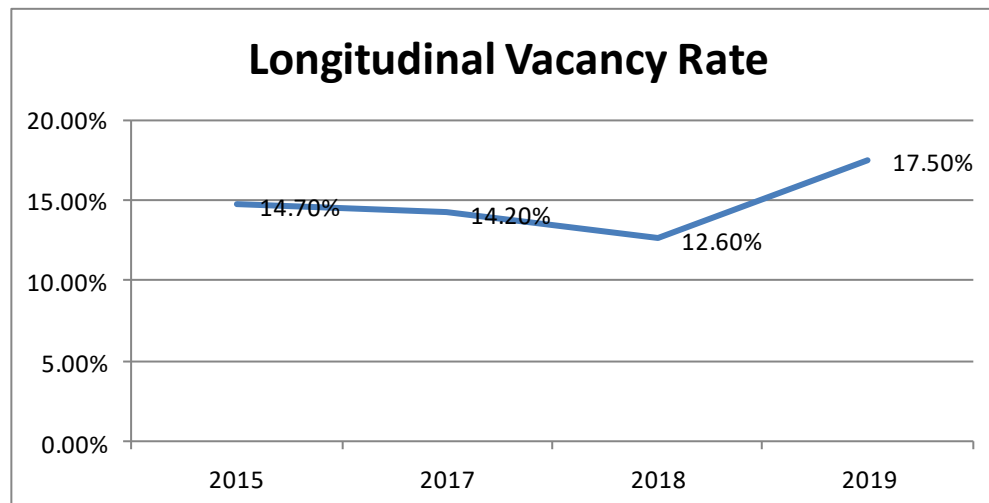


Figure 2. Longitudinal Vacancy Rates for Direct Support Professionals.

Repeated measures analysis of variance revealed a statistically significant outcome ( $F[1,24]=101.2, p<.000$ ), with differences noted between 2018 and 2019.

Because one might reasonably suggest that changes in the unemployment rate of Pennsylvania might be associated with these vacancy rates, we co-plotted Pennsylvania unemployment rates with Direct Support Professional vacancy rates obtained in the four larger surveys. These data are presented in Figure 3. Figure 3 suggests no linkage between Pennsylvania unemployment rate and Pennsylvania Direct Support Professional vacancy rate. There was a fairly consistent decline in unemployment, while there was a significant increase in vacancies with both measures. While the cross sectional study suggested a jump in vacancy rate, the longitudinal analysis suggested a more gradual increase.

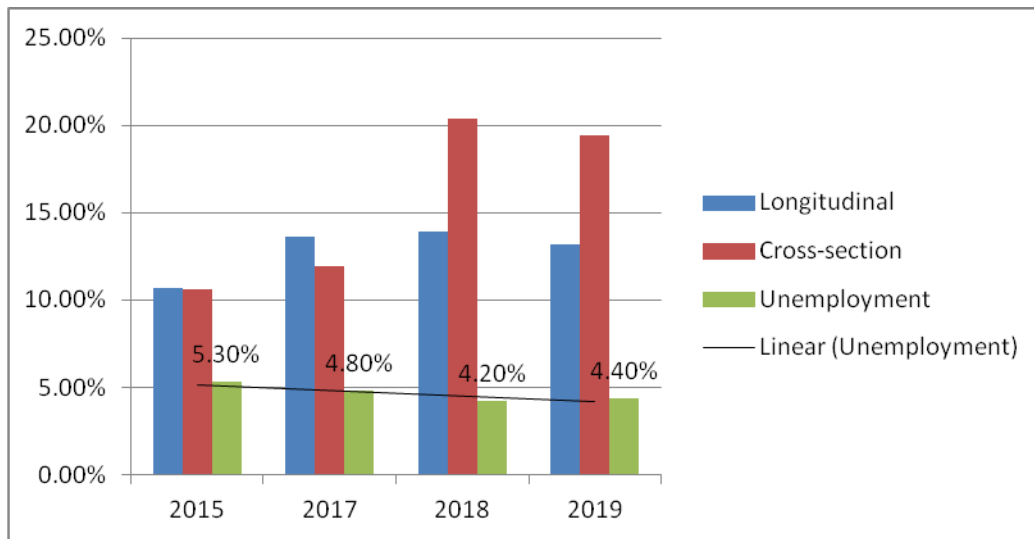


Figure 3. Comparison of Unemployment Rate and Vacancy Rate.

A similar analysis was conducted with Pennsylvania Gross Domestic Product. To fit comfortably on the same graph, Pennsylvania Gross Domestic Product is presented in 100 billions. Once again, there is no clear linkage between the DSP vacancy rate and one of the common indicators of economic development. These data are presented in Figure 4.

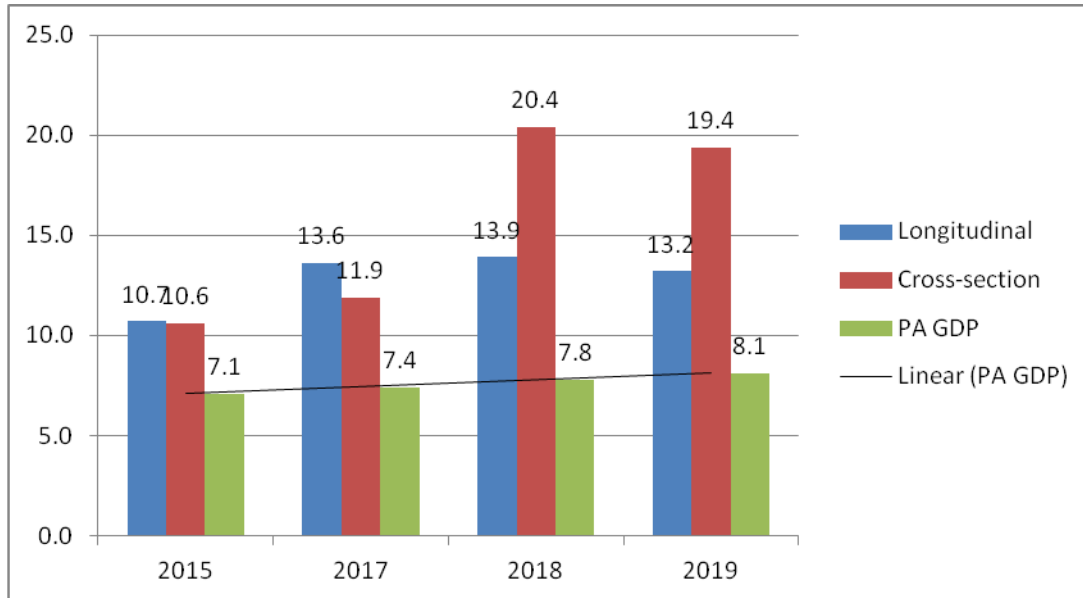


Figure 4. Pennsylvania GDP and Direct Support Professional Vacancy Rates.

With regard to both unemployment and Pennsylvania gross domestic product, there are linear trends reflecting an improving economic condition. In contrast, the DSP vacancy rate is not linear. The cross-sectional analysis revealed a jump in level of almost 71% between 2017 and 2018, while the longitudinal analysis suggested an earlier and more gradual increase in vacancies. Neither description of the vacancy rates appeared to complement the improvements in

the economy as measured by unemployment rates and Pennsylvania's gross domestic product. One cannot conclude that the increase in vacancy rates is solely related to general economic improvement.

Larson, Lakin, & Bruininks (1998) earlier reported that turnover was largely a function of low pay. To test this hypothesis applied to the vacancy variable, we performed a median split on hourly wage. We then compared the vacancy rates for high and low paying providers. Using just the 2018 data (highest vacancy rate), we found no significant difference; the mean vacancy rates were just 1/100 apart.

### **Discussion**

Both analyses revealed that the vacancy rate for Direct Support Professionals is worsening over time, although the two analyses yielded different quantitative descriptions of the worsening. Both, however, lend credence to the subjective impression of providers that things are worsening. Being both current and large in sample size, the 2019 survey that yielded a 19.4% vacancy rates is perhaps the best representation of current conditions.

Based on the large 2019 sample representing 36081 Pennsylvanians employed as Direct Support Professionals, almost 20% of Direct Support Professional positions are vacant in Pennsylvania. Let us consider the fiscal impact of the 20% vacancy rate. The most significant implication is that at least 20% of all required hours must be filled with overtime. Overtime is typically paid at time and a half, or 150% of the normal hourly wage. This means that each overtime hour will cost an agency an additional 50%. With an estimated 55,000 Direct Support Professionals working in the Pennsylvania intellectual Disability system, a 20% vacancy rate means that 11,000 FTE employees would have to be replaced with overtime. Assuming a 2080 hour work year and a mean hourly wage of \$12.83, the additional costs to Pennsylvania would be approximately \$293 million per year. Note that this does not count time off for vacation, sick leave, family medical leave, or training. As Torres, Spreat, & Clark (2017) noted, it might be cheaper to pay Direct Support Professionals a better hourly wage.

Focusing solely on fiscal matters is overly limited. Recognize that our industry is based largely on the development of supportive relationships with the individuals we assist. The development of relationships becomes challenged when the demand to fill vacancies with available staff. One local CEO recently reported at a provider association meeting that one individual she supports was bathed and/or toileted by 35 different people over the previous month. Relationships are shortchanged, program continuity is threatened, and quality of life is jeopardized by this excessive use of overtime.

The issue isn't simply that the wages paid to Direct support Professionals are too low. The issue is that providers do not have the flexibility to respond to changing market conditions. Their inability to respond to changing market conditions is a direct result of government fixed prices that constrain the providers from responding to changing market conditions.

A concern for a "living wage" is admirable, but an administrator's first responsibility must be towards those individuals who are receiving services and supports.

It seems unlikely that governmental agencies will discontinue the practice of fixing prices, thereby enabling provider agencies to respond to the changed market conditions. This skepticism is fueled by the continued growth of managed care strategies. It seems unlikely that the intellectual disability industry will become part of a free market, and it appears unlikely that significant rate adjustments will improve the workforce crisis. Alternate strategies will be needed. Diamond and Drummond (2020) identified a number of low cost recruitment and retention strategies that may make the Direct Support Professional program more attractive to applicants. Most of these strategies involved low-cost or no-cost educational programs that lead to academic degrees and the potential for better job opportunities. Ultimately, the Diamond and Drummond (2020) strategies will drive Direct Support Professionals from the position, but they may reduce the immediate crisis. The success of these strategies remains to be established.

Nasse (2019) has suggested that internal equity in customer relations is essential to the health of business relationships. Price alone is an insufficient index with which to judge the internal equity of a business relationship. Other necessary factors include fair management and fair compensation. Absence of internal equity may influence customer satisfaction. In a sense, Nasse suggests that governmental dissatisfaction with intellectual disability services may be a function of their own underfunding of these services.

### **Conclusion**

The data presented in this paper offer a discouraging view of the future of intellectual disability services. Absent adequate funding to hire sufficient numbers of sufficiently prepared staff and due to regulatory limits on offering a reduced quality product, it seems that the current workforce crisis will continue indefinitely.

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