Show Me the Money: Impact of County Funding on Retention Rates for Extension Educators

Abstract
Extension administrators contemplating the challenge of employee turnover should consider potential motivation factors. Through the lens of Herzberg's motivation-hygiene theory, we explored the relationship between financial uncertainty and employee turnover in Ohio State University Extension. The Human Resources department and Business Office of the university's College of Food, Agricultural, and Environmental Sciences provided raw data sets for the 2005–2014 study period. Through regression analyses and the use of descriptive statistics, we clarified aspects of the relationship between county funding challenges and employee turnover. Extension administration needs to proactively strengthen county funding streams and reduce the impact of funding disruptions to lessen the potential of employee turnover.

Introduction
Cooperative Extension programs receive funding from a combination of federal, state, and county sources. Additionally, Extension's reliance on support from grants, contracts, fees, and gifts is increasing due to a steady decline in governmental funding appropriations. As with most Extension systems in the country, the 88 counties of Ohio State University (OSU) Extension faced numerous financial challenges over the 10-year period of 2005–2014. Previous research linked similar financial challenges to a negative effect on employees' quality of life (Harder, Gouldthorpe, & Goodwin, 2015). Expanding on that premise, we explored the relationship between financial uncertainty and employee turnover in OSU Extension.

The Situation
Research has shown that financial challenges in the Extension work environment generate stress in employees, particularly at the county office level, where employees are acutely aware of financial situations. A recent study indicated that the majority of Extension employees felt their workloads were adversely affected by the budgetary challenges occurring in state and county Extension programs (Harder et al., 2015). The same study also showed that half of Extension employees felt the budget challenges were having an adverse effect on their quality of life. Moreover, the Extension Committee on Organization and Policy (ECOP) Leadership Advisory Council (2005) identified low salaries, downsizing, and increased workload as significant factors contributing to higher employee turnover.
Indeed, the retention of qualified Extension employees was identified as a key human resource challenge by the ECOP Leadership Advisory Council (2005). The building pressures caused by financial burdens have contributed to the loss of employees and ultimately inflated human resource expenses. To replace an Extension employee making $30,000 annually costs $7,185–$30,000 (Chandler, 2005). Overall, turnover is a drain on Extension's financial and time management resources (Ensle, 2005).

As Extension administrators contemplate the challenge of employee retention, understanding employee motivation is critical. One of the first job motivation theorists, Frederick Herzberg (1968), developed a premise known as motivation-hygiene theory, which involves two types of factors. Motivation factors are related to personal development and job satisfaction. They are typically intrinsic and intangible; examples include feelings of accomplishment, responsibility, and awards. In contrast, hygiene factors are related to more concrete mechanisms; examples include salary, hours, position, and benefits (Strong & Harder, 2009). Herzberg asserted that if there is a shortage of factors of one type, the focus is deflected from factors of the other type. For example, if an employee consistently has to work long hours, it can detract from the employee's motivation to fulfill his or her potential for advancement. Strong and Harder (2009) applied Herzberg's study to assert that if persistent negative hygiene factors (e.g., inconsistent funding) are present, an employee cannot focus on motivation factors.

Strong and Harder's assertion that persistent negative hygiene factors increase employee turnover intention is manifested in vocations beyond Extension. Cheng and Chan (2008) conducted a meta-analysis of 133 interdisciplinary studies and found a positive association between job insecurity and turnover intention. This association was particularly strong among newer employees. Given turnover trends and high aspirations of new employees currently entering the workforce (Schawbel, 2014), concern is warranted.

As discussed earlier, the impacts of high employee turnover cannot be understated. Impacts of repeated change in personnel include loss of "historical and programmatic knowledge, experience, and relationships that have been built up over time" (Harder et al., 2015, "Introduction," para. 2). When paired with the financial and administrative burdens of employee replacement, which can cost up to a year's salary (Ramlall, 2004), high turnover poses a substantial challenge for Extension leaders.

**Purpose and Objectives**

In 2015, we partnered with college leaders to conduct an assessment of county Extension finances and staff turnover rates. Our inquiry was a response to the departures of three key staff members who left the organization within a short time period—all of whom worked in counties facing budget challenges. Our primary objective was to assess the relationship between county funding and staff turnover. Data analysis helped us identify opportunities for administrators to support county offices or ameliorate county financial challenges. Following initial data analysis in 2015, we provided results to OSU Extension administrators and professionals at the OSU Extension Annual Conference to increase awareness of the connection between county funding and staff turnover.

**Methodology**

Two entities—the Human Resources (HR) department and the Business Office (BO) of the OSU College of Food, Agricultural, and Environmental Sciences—provided raw data sets for the 2005–2014 study period. The HR raw data set included 871 separations with corresponding job category, office location, year of separation, and reason for separation.
for separation. The HR data were filtered to exclude staff located outside county offices, those who left due to a normal retirement, and those who received a promotion to another location in the system. The resulting data set included 473 separations for the 10-year study period. The BO raw data set included county-by-county funding levels for each of the 88 Ohio counties, separated into yearly and cumulative columns. The BO data were reformatted but not filtered.

Data from the separate HR and BO data sets were combined in Microsoft Excel and exported to the SAS JMP Statistics package, version 11. In addition to analyzing common descriptive statistics, we performed simple and multiple regression analyses to capture the strength of linear relationships.

We also examined differential relationships between certain subcategories of interest. First, we examined the relationship between staff turnover and two unique job classifications: secretarial and educational. No significant difference between the two groups was established. Second, we used regression analysis to examine the relationship between staff turnover and three county funding formats: county commissioner, tax levy, and special/donor. Though tax levy–funded counties had lower staff turnover rates and special/donor–funded counties had higher rates, this relationship was inconclusive due to funding type variability faced by several counties during the study period.

Results

Impacts of Economic Downturn

To better understand the relationship between county funding and staff turnover, we summarized data relative to both. Annual county funding over the 10-year study period ranged from $17.9 million to $22.3 million, with a mean of $19.7 million. Annual staff losses ranged from 36 persons to 64 persons, with a mean of 48 persons. We noted that 3 of the 4 years (2009–2011) in which the greatest staff losses occurred correlated to the sharp county funding decline that resulted from the late 2008 collapse of the U.S. economy (see heat map overlay analysis in Figure 1).

Figure 1.
Annual County Funding Totals and Corresponding Staff Losses
The study decade's concluding period (2012–2014) exhibited the greatest tranquility, with a 3-year staff loss mean of 38 persons. This circumstance is partially attributable to the organization's reduction in force that stemmed from the $4 million funding decline.

**Per Capita Funding Impacts on Staff Turnover**

Further analysis suggested a mild linear relationship between per capita funding and staff turnover ($r^2 = .17$, $SE = .73$). Counties experiencing high or very high turnover (greater than 150% over 10 years) received a mean of $1.76 in per capita funding compared with counties experiencing very low or low turnover (100% or less), which received a mean of $4.68 in per capita funding. As indicated in Figure 2, in counties having per capita funding below $2, staff turnover was high and variable. In counties having per capita funding between $2 and $6, turnover was lower, but variability remained high. In counties having per capita funding above $6, turnover and variability were low.

*Figure 2.*

Staff Turnover Rate Relative to Per Capita Funding
Counties below the $2 per capita funding threshold trended more urban and were more likely to receive county funds from general governmental appropriations. Counties above the $6 per capita threshold trended more rural and were more likely to receive county funds from dedicated tax levies. Noting this locational discrepancy, we added county population as a control variable in the linear regression model. This model performed slightly better than the original ($r^2 = .26$, $SE = .69$) but not enough to dramatically alter mild scope of the linear relationship.

**Impacts of Financial Disruptions**

In addition to analysis related to the impact of county funding *level*, further regression analysis revealed little linear relationship between staff turnover and funding *consistency* ($r^2 = .01$, $SE = .80$). As Figure 3 depicts, counties experiencing more year-to-year ups and downs in funding demonstrated greater staff turnover but not enough to warrant relational significance. High volatility was defined as experiencing 3 or more disruptive years (calculated as greater than one standard deviation from the 10-year mean), medium volatility equaled 1 or 2 disruptive years, and low volatility represented no disruptive years. Counties with high financial volatility possessed 10-year staff turnover rates 22 percentage points higher than counties with low financial volatility.

**Figure 3.**

Staff Turnover Rate Relative to Financial Volatility
The majority of Ohio's counties (57) experienced low volatility. Given the clear relationship between staff turnover and financial volatility depicted by Figure 3, the lack of a significant linear relationship is likely due to the small sample sizes represented by the medium volatility (12) and high volatility (19) columns (Maxwell, 2000).

**Implications**

Our findings provide a descriptive overview of the relationship between county funding and staff turnover in OSU Extension. Results indicate that staff turnover increases dramatically in counties receiving per capita funding below $2. Counties with $6 or more in per capita funding are the most stable. Further, staff turnover is 22 percentage points higher in counties facing high levels of fiscal volatility as compared to counties with low volatility levels. These data suggest that a moderate relationship exists between county funding and staff turnover. Accordingly, unstable or insufficient local funding serves as one of Herzberg's hygiene factors, ultimately influencing employee retention.

In light of staff retention challenges already facing employers in general (Costanza, Badger, Fraser, Severt, & Gade, 2012) and Extension specifically (Kutilek, Conklin, & Gunderson, 2002), these results encourage Extension leaders to adopt several practices to proactively strengthen county funding streams and reduce the impact of funding disruptions. First, state administrators and government relations personnel should advocate for $2 or more in per capita funding at the county level. Currently, 30% of Ohio counties do not achieve this metric. Second, county directors should ensure sufficient carry-forward dollars to minimize year-to-year disruptions. Current encouragement of a 3-month carry-forward may be insufficient. Last, additional support, such as travel grants or emotional support services, should be deployed for staff in counties facing disruption or chronically poor funding. As Extension experiences a difficult era in staff retention, it is important that leaders employ good strategies for providing county offices with sufficient, stable funding and alternative support services when funding falters.
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References


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