

ALLEN COUNTY CENTRALIZED DISPATCH ECONOMIC FEASIBILITY STUDY

THE STUDY:

On September 23, 2009 Ohio Northern University (ONU) and the Board of County Commissioners, Allen County, Ohio (County) entered into an agreement whereby ONU, through the James F. Dicke College of Business Administration would provide a study of the fiscal aspects involved with and the economic feasibility of the creation of a Centralized Dispatch Operation in Allen County, Ohio. The lead faculty conducting the study were Dr. Paul L. Govekar, Associate Professor of Management and Professor Roger Young, Visiting Professor of Accounting. The students selected to participate in this study were Erin Milroy, Kristin Partee, and John Stanovich, all of the James F. Dicke college of Business Administration. The study is aimed at determining the cost effectiveness (including start-up costs and sustainability options) of switching from the current decentralized dispatch operation to a Centralized Dispatch Operation.

The study included the following activities:

1. Observe current dispatch operations in the seven (7) (later reduced to 6) dispatch locations in Allen County, Ohio.
2. Gather pertinent data regarding:
 - a. Past/current call volume per dispatch location
 - b. Past/current costs
 - c. Legal/labor issues
3. Research/observe other centralized dispatch operations in other counties and municipalities and capture the following:
 - a. Cost saving/expenses
4. Conduct interviews with the Allen County personnel as necessary to determine:
 - a. Pros and cons/roadblocks and opportunities
 - b. Interview frontline personnel (dispatchers) if deemed necessary.

Site visits to the Dublin, Ohio Centralized Dispatch facility and the dispatching facilities in Allen County were conducted between October 27, 2009 and February 22, 2010. At each of the locations, the team spoke with supervisors, dispatchers, Chiefs of operations, and other interested/involved individuals. At the time of the visits, financial and call volume data was requested from each of the sites. Subsequent to the visits and after analyzing the data provided, an eight-question questionnaire was sent to all involved sites. The completed questionnaire was returned by the Allen County Sheriff's Department, the Lima Police Department, the City of Delphos, and Shawnee Township. Data for Perry Township and the Spencerville EMS were determined from data available to the team.

ECONOMIC/FINANCIAL FEASIBILITY

Assumptions:

Certain assumptions were necessarily made in calculating the economic/financial feasibility of the proposed centralized dispatch facility:

1. All data provided by the involved organizations is fair and accurate.
2. Dispatch terminals are available and will be consolidated at a single location.
3. Dispatchers will work an 8-hour shift, 5-days/week for a 40-hour work week.
4. Calls will be answered in accordance with the NFPA standard of 95% of all calls answered within 15 seconds.
5. Call volume is distributed among the shifts in the proportion XX% first shift, XX% second shift, XX% third shift.
6. All dispatchers will have 160 hours of leave time per year.
7. Each shift will have 30 minutes of break time and a 30-minute paid meal break.
8. Average employee cost per dispatcher will be \$54,435.66 (calculated as total employee cost for all centers divided by the number of dispatchers)
9. Only one LEADS terminal will be required for the Centralize center.
10. Initially, the Centralized Dispatch Center will be located in an existing dispatch location.

Calculations:

The current situation for each of the 6 call centers is shown at Appendix A. Total employee, maintenance, and LEADS costs are calculated to be \$2,113,066.72.

Under a Centralized Dispatch system, 17 dispatchers are required to man the center. This was calculated as follows:

Total dispatchers required per shift was calculated using the Ansapoint Call Center Calculator (<http://www.erlang.com/calculator/call>). Five dispatchers are required for the first and second shifts and 2 dispatchers are required for the third shift. The total number of dispatcher required to man the center 24 hours/day, 365 days/year was calculated using the APCO Formula for Comm Center Staffing (http://www.911dispatch.com/shifts/apco_staffing.html). Based on this formula, a total of 17 dispatchers are required to man the center 24/7/365, based on the assumptions above. Calculations for shift personnel. Additionally, the Centralized Dispatch proposed budget included 3 supervisory positions estimated at an average employee cost of \$70,000/year/supervisor. At three of the facilities involved (Shawnee Township, Delphos, and Perry Township) dispatch personnel are also responsible for important administrative duties at the facility. In each of these facilities, the Centralized Dispatch proposed budget includes funds for a 40-hour/week administrative employee to assume those duties currently performed by dispatchers at those facilities. Total personnel calculations are at Appendix B.

Since all dispatching would take place from a central location, the assumption was made that only one LEADS terminal, located at the Centralized Dispatch Facility is required. Currently, LEADS terminals are located at the Allen County Sheriff, Lima Police Department, Shawnee Township and Delphos. If LEADS terminals in addition to the one at the Centralized Dispatch Facility, this would be at the option of the particular department and is not considered for economic/financial feasibility of Centralized Dispatch.

Maintenance costs varied at the facilities under consideration. For the Centralized Dispatch Facility, the team used the highest annual cost reported and increased that cost due to the additional stress that would be put on the system.

Start-up

Given that there is a significant personnel impact of converting to a Centralized Dispatch Facility, the team assumed that the conversion would be conducted in stages. The assumption was that, initially, the Centralized Dispatch would be located at one of the two existing larger dispatch facilities. Given that several of the facilities involve employees who have rights under collective bargaining agreements, the amount of time necessary to negotiate a change to a Centralized Dispatch Facility would vary among entities involved in the centralization. Once the labor negotiations are concluded, the Centralized Dispatch Facility Board would make a decision on the location of the facility somewhere in Allen County.

Sustainability

Best practice in the industry, as well as the clear recommendation of Jay Somerville of the Dublin Division of Police, says that to be sustainable in the long run, the Centralized Dispatch Facility should be an entity which is separate and distinct from the organizations from which it was formed. Best practice indicates that the facility should be governed by a board of directors which is chosen from the municipalities that are served by the Centralized Dispatch Facility. The size and exact makeup of this board would be a decision left until a decision is made on whether or not to establish a Centralized Dispatch Facility. At that time, this group recommend locating the Centralized Dispatch Facility in an existing or new building in Allen County which is separate and distinct from the all current locations.

One of the key sustainability issues involved is the cost of the Centralized Dispatch operation. In the budget at Appendix C, we recommend that payment for the facility be made based on the number of calls for service from the previous year for each organization involved. Based on the call-for-service information provided the current share of the budget for the facility would be as follows:

Allen County Sheriff:	58.5%
Lima Police Dept.	30.95%
Shawnee Twp.	4.81%
Delphos	5.16%
Perry Twp.	0.36%
Spencerville EMS	0.22%

The share of the cost for the next year should be recalculated each year to account for changes in call volume.

CONCLUSION

Based on the above assumptions and calculations, it is the conclusion of this study group that centralizing the dispatch operation for Allen County emergency service personnel is economically/financially feasible. Overall, the citizens of Allen County will save in excess of \$900,000 per year and the budget of each of the entities involved in the operation would be favorably impacted.

THE STUDY GROUP:

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