WV Parkways Authority

Workforce Study 2017

WEST VIRGINIA PARKWAYS AUTHORITY

West Virginia Parkways Authority

Workforce Development Report 2017

Principal investigator (PI)
Diana Long, Ed.D.
Director of Workforce Development and Education
Appalachian Transportation Institute

Justin Matthews, M.B.A, M.S.
Research Assosiate
Appalachian Transportation Institute

Kent Sowards, M.B.A
Director of Research and Strategy
Appalachian Transportation Institute

Appalachian Transportation Institute (ATI)
One John Marshall Drive | Huntington, WV
njrati.org

Table of Contents

Section I: Design of the Study

The Purpose

The West Virginia Parkways Authority (WVPA) has statutory authority to provide for the construction, development and maintenance of 88 miles of interstate roads that constitute the West Virginia Turnpike. The Authority is governed by the Parkways Authority Board which is composed of the Governor, or designee, who serves as Chair, plus eight members including the Secretary of Transportation and six public members (two from each Congressional District and one At Large member appointed by the Governor with the advice and consent of the Senate. The members are appointed for five-year terms. Their purpose is to set policy, develop strategy and steer the direction of the agency. More information about the WVPA may be found in the Attachment Section of this report.

The purpose of the West Virginia Parkway Workforce Study was to collect and analyze data concerning the current and projected demographics of the workforce and to recommend strategies which would address any critical shortages of workers; reduce turnover and attract the skilled personnel needed by the agency.

The Problem

Workforce issues need to be addressed.

- High levels of turnover in mission critical positions result in increased costs, inefficiencies, poor customer service and higher maintenance costs.
- The Step pay system and scale is obsolete and offers no incentive for workers to stay. After initial step increments, employees only see additions to wage rates at five year intervals.
- The Step system operates similar to an apprenticeship program, but the fully trained workers have no incentive to stay, so they go elsewhere to work. The WVPA is a training program for other agencies.
- WVPA is public and highly scrutinized. They are in a unique situation in that they operate 100% from toll revenues and receive no funds from the West Virginia Legislative budget. They mirror some policies and procedures as other state agencies, but at times, operate independently. This creates confusion, especially with personnel issues, job classifications and descriptions and salary levels.
- WVPA wage rates are not those of WV Department of Transportation, but the agency serves much like one of the Division of Highways' agencies in the state, responsible for the construction, development and maintenance of the 88-mile Turnpike.
- WVPA cannot compensate a person's experience levels or advanced credentials when hiring. Entry level skills apply to all.
- There is no career pathway for advancement. There is no incentive for workers to move up into supervisory positions or attain additional credit or levels of education. Example: A Heavy Equipment Operator with two years of experience makes $21.34/hr. If s/he were to move up into a Forman position s/he would make $15.42/hr., a $5.92/hr. reduction.
- The skill sets needed by the workforce are evolving, especially with the effect of technology on the business practice and operations of the tolling industry.

The Scope of Work

The Appalachian Transportation Institute at Marshall University conducted a workforce study for the WV Department of Transportation in 2007 and repeated the study in 2014. WVPA entered into an agreement with Marshall University to replicate the study. The study was framed with the following questions.

State of the State WVPA Current Workforce

- What are the current demographics of WVPA workers?
- Who are the potential retirement groups that may occur during the next five years? 2018-2022
- Of those eligible to retire, how many will retire during the next five years?

Salary Comparisons

- How do WVPA salaries of the following classifications compare with border states of Kentucky, Maryland, Ohio, Pennsylvania and Virginia; WVDOT/DOH; Cities of Charleston, Beckley and Princeton; local boards of education and the private sector?

Retirement

- If workers are eligible to retire, will they go?

Education and Training

- What are the education demographics of the agency?
- What are the prevailing attitudes toward training and development?

Retention and Recruitment

- What job classifications have the highest level of turnover?
- What are the reasons for separation?
- How do WV salaries of those highest turnover classifications compare with government agencies and private industry in West Virginia border states?
- How can WVPA reduce turnover?

Technology

- How is technology affecting the current and future workforce of the WVPA?

Recommendations

- What are the recommendations going forward?

The Timeline

The study was conducted between September – December 2017. Major milestones:

1. Memorandum of Agreement executed September 7, 2017 between Marshall University Research Corporation and the WV Parkways Authority.

2. Marshall University Institutional Research Board approved the employee survey September 11, 2017.

3. Employee survey opened September 15, 2017.

4. Employee survey closed October 20, 2017.

5. Directors' Focus Group held November 7, 2017.

6. Report presented and distributed to Parkway Authority Board of Directors. December 7, 2017.

Section II: Demographics of the Current Workforce

The workforce demographic data was provided by the WVPA and reflects the status of the workforce as of September 21, 2017. Number Rule of 80 eligible refers to those employees whose age and years of service, when summed, equal the number 80 or more. Retirement Eligible in 2017 refers to employees currently eligible to retire either by a strict definition of the Rule of 80 or by the alternative rule of 60 years old and a minimum of 5 years of service. Retirement Eligible 2018-2022 refers to those employees who will be eligible to retire either by the Rule of 80 or by reaching 60 years old and having 5 years of service at some point between 2018 and 2022.

Table 1: Key Workforce Demographics

Total Number in Workforce	375
Average Age	45.1
Average Years of Service	13.9
Retirement Eligible in 2017	72 (19.2%)
Retirement Eligible 2018-2022	134 (35.7%)
Workers Under the Age of 45	155 (41.3%)
Rule of 80 Eligible	40 (10.7%)
Responses to Survey	280 (74.7%)
Gender: Male/Female	244/131

Table 2: Average Years of Service Per Age Group

Age	Average Years of Service
≤ 25	1.9
26-30	4.5
31-35	7.1
36-40	8.6
41-45	12.3
46-50	15.8
51-55	17.7
56-60	12.0
61-65	17.8
66-70	20.5
71-75	15.6

The WVPA database contains job duties which can be organized into a number of different clusters. Table 3 shows the number of workers in each cluster and the percentage of those workers eligible to retire between 2018 and 2022.

Table 3: Distribution of Workers Across Job Clusters and Percentage of Retirement Eligible

Job Cluster	Total Workers	Eligible to Retire 2018-2021
Administrative Support	25	60.0%
Communication/Dispatch	10	10.0%
Customer Service	29	24.1%
Heavy Equipment Operator	8	50.0%
Information Technology	13	30.8%
Landscaping	4	0.0%
Maintenance	102	24.5%
Management	23	73.9%
Toll	148	36.5%
Tourist Information	13	53.8%

The data indicate the average age at the WVPA is somewhat young, but a large number of employees are older and are eligible to retire within the next 4 years. The workforce could be reduced by 72 workers today, if those who are eligible decide to retire. Additionally, the workforce could be reduced by 134 should the employees who will be eligible to retire either by the Rule of 80 or by reaching 60 years old and having 5 years of service at some point between 2018 and 2021 decide to retire.

Section III: Survey Results

A web-enabled survey was designed to determine workers' perception and opinion of retirement, recruitment and retention issues; education and development and technology. The survey used the Select Survey™ software by ClassApps. The survey was hosted on the Appalachian Transportation Institute server, which ensured the anonymity of the respondents. The survey questions were submitted to the Marshall University Institutional Research Board in accordance with research guidelines to determine if the study should be considered as "Exempt" from the Human Research Protection Program, IRB Protocol. Because the information obtained was to be recorded in such a manner that human subjects could not be identified directly or through identifiers linked to the subjects, the status was ruled to be exempt by Marshall's IRB on September 11, 2017. The survey questions are included in the Attachment section of this report. A major limitation of the study is the open access and lack of identification. The decision was made to allow open access and use statistical levels of significance to control for bias and error.

The survey was opened on September 15, 2017. All employees were notified of the survey and were encouraged to take the survey during their normal working hours, or at their convenience. Assistance was available to assist workers in accessing the internet if needed. The survey remained open for 5 weeks and closed on October 20, 2017. 282 workers completed the survey, which represents 75% of the WVPA employees.

Statistical Significance of the Survey Responses

The WV Parkways personnel database contained detailed demographic information for 375 employees. 282 valid responses were obtained during surveying, producing a response rate of 75.2%. The high response rate combined with the relatively small population of Parkways employees suggested validity from the survey responses for Parkways employees, as well as by demographic groups.

The Parkways personnel database provided demographic information to compare against the information obtained in the survey responses across five variables including age, years of service, gender, employment status and broad occupational groupings.

Age and years of service were derived from the personnel database by subtracting the birth date or start date from the date that the respondent took the survey. It should be noted that respondents provided answers to the age and years of service questions in whole numbers or halves. Gender and employment status were self-reported on the survey, while the occupational groupings were aggregated in both the survey and personnel database for ease of analysis.

Table 4 provides some summary statistics for numerical data for the survey sample as compared to the known population. Minimum, median and maximum values for the sample and the population were identical. The mean values for employee age was also very close, leading us to believe that the survey sample is likely representative of the known population.

Table 4: Summary Data for Age and Years of Service in the Sample and Population				
Variable	Age		Years of Service	
Characteristic	Population	Sample	Population	Sample
N	375	280	375	280
Minimum Value	19	19	0	0
Maximum Value	71	71	37	37
Median	47	47	12	12
Mean	44.6	44.2	11.9	13.8
Standard Deviation	-	10.8	-	9.4
Confidence Interval[1]	-	22.6 - 65.8	-	0 – 32.6

Table 5 provides a summary of the three categorical data variables that were matched in the survey sample and the population. Responses by gender closely matched the expected values within the population. Response rates by employment status and position groupings indicate that higher percentages of full-time and maintenance employees responded to the survey, while toll-related positions responded in lower percentages than their representation across the known population. As such, care should be exercised when evaluating responses for part-time employees and toll-related positions in isolation.

Table 5: Summary Data for Categorical Data in the Sample and Population			
		Population	Sample
Gender		Percentage	Percentage
	Male	69.0%	67.2%
	Female	31.0%	32.8%
Employment Status		Percentage	Percentage
	Full-Time	83.1%	95.4%
	Part-Time	16.9%	4.6%
Position Grouping		Percentage	Percentage
	Administrative Support	6.4%	6.0%
	Communication/Dispatch	2.4%	1.8%
	Customer Service	8.0%	6.7%
	Heavy Equipment Operator	2.1%	1.8%
	Information Technology	3.5%	1.8%
	Landscaping	1.1%	1.1%
	Maintenance	28.0%	35.5%
	Management	5.6%	13.8%
	Toll	39.5%	27.3%
	Tourist Information	3.5%	4.3%

[1] Assumed to be within two standard deviations of the mean value. If a data distribution is approximately normal then about 68 percent of the data values are within one standard deviation of the mean (mathematically, $\mu \pm \sigma$, where μ is the arithmetic mean), about 95 percent are within two standard deviations ($\mu \pm 2\sigma$), and about 99.7 percent lie within three standard deviations ($\mu \pm 3\sigma$).

To help improve the confidence that observed survey responses were indeed indicative of the broader employee population, statistical inference testing in the form of *t* tests were performed. The *t* test of significance is a common test to determine if two sets of data are significantly different from each other.

Table 6: Test Results	
Variable	P Value
Age (in years)	0.020
Years of service	0.045

Table 6 illustrates the confidence testing results across the two comparable numerical variables. P Values for the *t* test conducted for age and years of service suggest, with greater than 95% confidence, that the sample data are representative for the population on the two variables tested. Thus, the independence testing results, in combination with the response rate and approximate distributions across categorical variables, suggest that the survey sample and the known population are indeed representative.

Findings: Retirement

The WVPA database indicates that 72 workers have been or will be eligible to retire in 2017. That is 19% of the workforce. 134 will be eligible to retire over the next five years 2018-2022 (35%.) The worker survey questions were designed to determine if WVPA employees reflect the trends and issues related to retirements in other sectors. When completing the survey, workers were asked to answer questions based on what they would do if or when they reach retirement eligibility. The survey also contained questions related to factors which may influence their decision to retire or continue working.

The Eligible. The workers who are eligible now, or will be eligible in 2017 are satisfied with their job and indicate they are unlikely to retire. Barring some threat to benefits, it is not likely the majority of the 72 workers will retire in 2017.

Table 7: In the year you are eligible to retire, how likely are you to retire?		
Response	Overall	Eligible now or by end of 2017
Very Likely	44.6%	25.0%
Likely	24.6%	0.0%
Neutral	14.6%	8.3%
Unlikely	12.5%	41.7%
Very Unlikely	3.6%	25.0%

Table 8: How satisfied are you in your current position?		
Response	Overall	Eligible now or by end of 2017
Very Satisfied	19.7%	16.7%
Satisfied	44.4%	33.3%
Neutral	19.7%	33.3%
Dissatisfied	8.6%	16.7%
Very Dissatisfied	7.5%	0.0%

Retirement Eligible 2018-2022. For those respondents indicating that they would be eligible to retire in the next five years, we observe a slightly higher percentage responding either "Very likely" or "Likely" as compared to the overall survey sample (75.4% for those eligible in the next 5 years and 69.2% overall). The remaining differences are largely in those responding neutrally.

Those retiring in the next 5 years are probably going to work in another job. Based on the responses illustrated in Tables 9 and 10, we can conclude that in large part, those eligible to retire in the next five years and seek employment, are likely to do so somewhere else. Responses indicate that the group of employees eligible to retire in the next five years are likely to seek employment post retirement and in much greater percentages than the survey sample. Nearly two-thirds of respondents who indicated that they will be eligible to retire in the next five years will seek post retirement employment, as compared to only two-fifths of the overall survey sample.

Table 9: In the year you are eligible to retire, how likely are you to retire?

Response	Overall	Eligible the next 5 years
Very Likely	44.6%	59.6%
Likely	24.6%	15.8%
Neutral	14.6%	7.0%
Unlikely	12.5%	14.0%
Very Unlikely	3.6%	3.5%

Table 10: How likely are you to seek employment (other than WVPA) after your retirement?

Response	Overall	Eligible the next 5 years
Very Likely	20.0%	42.1%
Likely	21.1%	22.8%
Neutral	31.8%	19.3%
Unlikely	17.1%	8.8%
Very Unlikely	10.0%	7.0%

Table 11: How likely are you to work at WVPA after your retirement?

Response	Overall	Eligible the next 5 years
Very Likely	4.6%	5.3%
Likely	12.5%	5.3%
Neutral	32.9%	15.8%
Unlikely	22.5%	24.6%
Very Unlikely	27.5%	49.1%

Health and financial situations will affect decisions to retire or not when they are first eligible. That data was consistent among all groups.

Table 12: How likely will your health affect your decision to retire or not when you are first eligible?	
Response	Overall
Very Likely	33.0%
Likely	32.0%
Neutral	18.0%
Unlikely	11.0%
Very Unlikely	7.0%

Table 13: How likely will your financial situation affect your decision to retire or not when you are first eligible?	
Response	Overall
Very Likely	48.0%
Likely	30.0%
Neutral	13.0%
Unlikely	4.0%
Very Unlikely	5.0%

Findings Education and Training

Attracting, developing and retaining a competent workforce is not a new issue for employers who require specific skill sets in workers. Many transportation sector workers, by virtue of their 24/7 schedules have not participated in traditional higher education classroom training. Technology has changed the delivery options, and there has been an increase in competitive institutions, increased availability of accelerated programs, increased options of alternative delivery methods and emphasis on national industry recognized credentials.

WVPA does not track education and development of employees. There are minimum educational requirements specified on job classification descriptions, but the current database does not reflect the highest level of education of employees. Of the survey respondents, 80% indicated that they have a high school diploma and some training beyond high school.

Table 14: Education Levels of Survey Respondents		
Less than high school	0	
High school diploma	171	61%
Post-Secondary but less than degree	56	20%
Associate's Degree	20	7%
Bachelor's Degree	25	9%
Advanced degree or license	9	3%

Questions on the survey addressed activities associated with career development. Workers were asked to self-report cross training, movement into new job classifications, college tuition reimbursement, voluntary participation in training opportunities. Survey respondents indicate they value growth, learning and development as shown in Table 15. In Table 16, the responses suggest opportunities for growth, learning and development are key to why people stay and more of those opportunities could help reduce turnover. Table 17 illustrates that the lack of such opportunities is one of the more significant reasons as to why people leave.

Table 15: Importance of growth, learning and development as to why you stay	
Very Important/important	79%
Unimportant/Very important	3%

Table 16: Provide more opportunities for career growth, learning and development to reduce turnover	
Very effective/effective	86%
Ineffective/very ineffective	2%

Table 17: Significance of the lack of growth, learning and development as to why others leave	
Very Significant/significant	60%
Insignificant/very insignificant	12%

Despite this data, the employees do not show a high level of participation in training. No one reported taking a college class and requesting tuition reimbursement. Very few reported cross training. Almost half (47%) reported they did not take any training programs above what was required by WVPA.

Table 18: Cross-trained in the last 3 years	
Yes	17%
No	83%

Table 19: Non-required training course over the last 3 years	
0	47%
1 or 2	28%
3 or 4	16%
4 or 5	4%
More than 5	6%

Table 20: College courses reimbursed by WVPA	
Number of Courses	Percentage
0	100%
1 or 2	0%
3 or 4	0%
4 or 5	0%
More than 5	0%

When asked "What technical device, application or training is desired?", 185 respondents entered a reply in an open text box. There were approximately 57 responses which focused on training. The data cannot be presented in a straight frequency count because some of the employee listed several topics in one sentence. The following information is provided in this report to serve as a guide if the WVPA initiates a strategic training initiative.

- Employees are interested in training that would lead to a pay increase.
- The most frequent and specific requests were for computer related training. There were over 25 comments that asked for specifics such as Excel, Word, KRONOS, wvOASIS, Cisco Systems.
- Employees are interested in training that will improve service to the customers. Examples:
    - How to detect counterfeit bills
    - WV history and tourism
    - General customer service
- Employees are interested in training that will improve operations and maintenance. Specific topics included:
    - Welding
    - Bridge/Concrete
    - Fleet management
    - Detours
    - Hydraulics
- Employees expressed a need for training in health and safety such as fire alarms, CPR, EMT and general safety procedures.

Findings: Technology

Transportation information technology is deployed to maximize safety, mobility and environmental performance. Interest in Intelligent Transportation Systems (ITS) has been growing each year especially with increased traffic congestion, new technologies and communications networks. The tolling industry has been or will be implementing many of these technology solutions in the future:

- Wireless communications
- Cell phone triangulation
- Vehicle re-identification
- GPS based methods
- Sensing technologies
- Video vehicle detection
- Vehicle to vehicle communications
- Weather responsive traffic management
- Traveler information
- Crash avoidance
- Pavement evaluation technologies
- Embedded data collectors into bridges.

As WVPA moves into the future, technology applications will be deployed to serve the public, but all the applications will help to manage the work processes of the agency.

Is technology important to the WVPA employees? From the respondents' answers, they believe technology is important to themselves but have not seen it as a dominant factor as to why people have left in the past, but it may be more of a factor for retention in the future.

Table 21: Cutting Edge Technology as Important	
Response	Percentage
Very important/important	68%
Unimportant/very unimportant	10%

Table 22: Lack of Technology as to Why People Leave	
Response	Percentage
Very significant/significant	22%
Insignificant/very significant	12%

Table 23: Implement Technology to Reduce Turnover	
Response	Percentage
Very effective/effective	54%
Ineffective/very ineffective	11%

Almost 25% of the respondents do not use a computer at work or in their personal lives. A larger percentage of respondents reported using computers much more frequently at work than in their personal lives.

Table 24: Utilizing a Computer at Work	
Response	Percentage
Do not use at work	23%
1 hour	24%
2-3 hours	17%
4 or more	42%

Table 25: Utilizing a Computer in Personal Life	
Response	Percentage
Do not use in personal life	22%
1 hour	46%
2-3 hours	21%
4 or more	11%

Office equipment and software updates were the most frequently reported when asked "What new or upgraded technology have you received over the past year?"

Table 26: Technology Upgrades	
Response	Percentage
Computer work station	25%
Tablet	7%
Smart phone	14%
New software	12%
Software update	34%
Office equipment	40%

Personal owned devices are used to help survey respondents do their job at work.

Table 27: Use of Personal Devices	
Response	Percentage
Computer work station	26%
Tablet	4%
Smart phone	64%

The survey respondents were asked to think about how they send/receive information at work. For each item, they indicated if the frequency of the use has increased or decreased over the last two years. This data reflects the general processes familiar today. Paper letters and memos are decreasing and text messages, internet based/telephone systems are more frequently used than other methods.

Table 28: How I Send Information		
Response	More	Less
Internet	39%	9%
Text messages	40%	9%
Paper letters and memo	21%	23%
Face to face meeting	27%	20%
Webinars	5%	12%
Telephone	45%	12%
Conference calls	9%	10%
Virtual meetings	2%	7%
Social media	9%	10%

When asked "What technical device, application or training is desired?", 185 respondents entered a reply in an open text box. There were over 100 responses that focused on specific equipment and technology applications. The data cannot be presented in a straight frequency count because some of the employees listed several topics in one sentence. The following information is provided in this report to serve as a guide if the WVPA wants to develop a strategic plan for the deployment and implementation of technology.

- The most frequent responses were related to the Toll Plazas. Specifically, respondents asked for equipment to allow customers to pay tolls with credit cards. There is also a request for more, and/or improved access to traffic cameras.
- Smart phones are an issue. 64% of the respondents indicated they use their personal smart phones to help them do their job. There were over 14 specific requests for WVPA phones to be issued to workers.

- There were many requests for computers, tablets, iPad, etc.
- Employees are interested in specific pieces of equipment which may or may not be technology related i.e., a truck and trailer with a 5th wheel; skid steer, more mile markers etc. There were frequent responses related to WVPA provided vehicles. Who gets one; who wants one; who should be permitted to take vehicle home at night, etc.
- Employees are interested in basic office equipment to help them improve their efficiency. Examples: two computer screens, printers, sitting to standing desks, faster computers.
- Internet access and WIFI were the most frequent responses related to technology application.
- Asset management devices were requested such as upgrades to retail software; bar code inventory scanners; scanners and printers for information desks.

Findings: Retention and Turnover

There is a high sense of job satisfaction among the survey respondents (Table 29) and they believe their job is of value to the overall organization from their perspective as well as from their supervisor's perspective (Tables 30 and 31). They also report that their job description is very similar to their day to day activities as shown in Table 32. This is an indicator of job satisfaction. If someone has too many duties outside of "what they hired in for" they often feel higher levels of stress and dissatisfaction. Another indicator of job satisfaction is how fairly the employees believe they have been treated during the evaluation process. Tables 34-37 illustrate that for the most part, the employees feel the process is fair, but that it has little bearing on improving skills on the job. It could be assumed this is because most of the respondents have been frozen in pay and promotions.

Table 29: How satisfied are you in your current position?

Response	Percentage
Very Satisfied	19.7%
Satisfied	44.4%
Neutral	19.7%
Dissatisfied	8.6%
Very Dissatisfied	7.5%

Table 30: How important is your job to the overall organization?

Response	Percentage
Very Important	56.0%
Important	28.0%
Neutral	11.0%
Unimportant	4.0%
Very Unimportant	1.0%

Table 31: How important is your job from your supervisor's perspective?	
Response	Percentage
Very Important	51.0%
Important	32.0%
Neutral	11.0%
Unimportant	4.0%
Very Unimportant	3.0%

Table 32: How similar is your job description and your day to day activities?	
Response	Percentage
Very similar	40.9%
Somewhat similar	37.3%
Neutral	12.2%
Somewhat dissimilar	4.7%
Very dissimilar	5.0%

Table 33: Over the past 3 years how many times have you been evaluated?	
Response	Percentage
0	6%
1	6%
2	9%
3	54%
More than 3	25%

Table 34: How satisfied have you been with your evaluation process?	
Response	Percentage
Very satisfied	23%
Satisfied	41%
Neutral	25%
Not satisfied	7%
Very not satisfied	4%

Table 35: How useful has the feedback of your evaluation been in improving your skills on the job?	
Response	Percentage
Very Useful	15%
Useful	32%
Neutral	33%
Useless	10%
Very Useless	9%

Table 36: Do you feel you have been fairly evaluated in the past?	
Response	Percentage
Yes	84%
No	16%

Table 37: Do you feel you will be fairly evaluated in the future?	
Response	Percentage
Yes	82%
No	18%

What we see in the survey data is that respondents reported an increasing likelihood that they would look for another job and leave WVPA as years of service (by group) increased. Those respondents with 10 or less years of service were the least likely to report that they would look to leave, while those with 11-20 years of service and 21-30 years of service were increasingly likely.

The survey was designed to ask the workers their opinions regarding what are the most important issues to them regarding why they would stay or leave, and their perspective on why others have left and what WVPA should do to reduce turnover. Tables 38-40 illustrates that if WVPA wants to improve retention and reduce turnover they need to improve pay and benefits and provide opportunities for growth and development which includes but is not limited to comparable salaries, career pathways with inducements for advancement such as educational and credential attainments.

Table 38: Why I Stay; What is Important to Me?	
Response	Percentage
Job security	98.0%
Fair pay and benefits	96.0%
Great work environment	88.0%
Location	88.0%
Effective Management	86.0%
Family Friendly	85.0%
Recognition for work well done	83.0%
Great co-workers	82.0%
Flexibility in work hours	80.0%
Career growth, learning and dev	79.0%
Sense of control over my work	77.0%
Part of a team	75.0%
Meaningful work	74.0%
Cutting edge technology	68.0%
Exciting work	67.0%

Table 39: Why Others Leave?	
Response	Percentage
No opportunities for career growth	70.0%
Unfair pay and benefits	70.0%
Poor management	53.0%
No recognition for work well done	41.0%
Lack of a sense of control over their work	38.0%
No job security	38.0%
No flexibility in work hours	34.0%
Poor relationships with co-workers	34.0%
Not family friendly	33.0%
Poor work environment	30.0%
Not being part of a team	28.0%
Boring work, no challenges	23.0%
No use of technology	22.0%
Bad location	17.0%
Meaningless work	15.0%

Table 40: What Should be Done to Reduce Turnover	
Response	Percentage
Improve pay and benefits	96.0%
Provide more opportunities for career growth, learning and development	86.0%
Provide recognition for work well done	81.0%
Improve job security	77.0%
Allow flexibility in work hours	73.0%
Improve management skills	73.0%
Become more family friendly	68.0%
Allow input in new hire selection	68.0%
Improve work environment	68.0%
Increase team work and team accountability	65.0%
Implement the use of cutting edge technology	62.0%
Increase worker' sense of control over work	60.0%
Make work more exciting and challenging	54.0%
Provide meaningful work	46.0%
Improve location	15.0%

Section IV: Salary Comparisons

According to the WVPA there is a high level of turnover among Customer Service, Toll Collectors, IT Assistants and Maintenance (Highway Techs, Utility Techs, Mechanics). A major portion of this study was to research possible reasons. Based on the assumption that most workers prefer to stay in the area, or close to the area in which they currently live, we looked at the most logical employers to which the WVPA employees would switch. Data was collected from the West Virginia Department of Transportation (WVDOT) and DOT in the states bordering WV; three municipalities located along the 88 miles of the West Virginia Turnpike, i.e., Charleston, Beckley and Princeton; and three Boards of Education, i.e., Kanawha, Raleigh and Mercer. Private industry data was collected from the Contractors Association of West Virginia, who represent over 450 businesses and 20,000 employees in the building, highway, industrial and utility industry.[2]

Salary comparisons are not 100% accurate. Different agencies define and classify job titles differently; some report annual wages, some only hourly rates. Not all agencies have workers in every classification. To address these variables, ATI included a brief description of the duties with each occupation, so the other agencies could report data based on their perception of a comparable match. When available, the comparable job title is included in the data. Due to the range of duties for management job titles broadly and across jurisdictions, these positions were excluded from direct comparison within the analysis.

WVPA as Compared to Municipalities

The WVPA data calculate both the Minimum Yearly Pay and Minimum Hourly Pay. To calculate the annual minimum when given an hourly rate only, we used 2,080 hours in a year. This is an important note, because someone looking at the data may think the comps are higher or lower than they see listed elsewhere. This was calculated using the WVPA Annual Minimum rate/entry hourly rate. Example: WVPA Minimum Yearly Pay for a Carpenter is $20,134.40. The Minimum Hourly rate is listed as $9.68/hr. The quotient is 2,080 hours in a year.

[2] http://www.cawv.org/#bf_miniCal_118

WV Parkway Job Titles and Descriptions

1. Highway Technician- Roadway maintenance (repair asphalt, apply crack sealant, fix drainage along roadway), drive snow plows, mow, clear and clean up wrecks.

2. Mechanic- Repair vehicles, welding, body work and painting vehicles

3. Carpenter-Build or repair building structures, lay concrete

4. Utility Craftsman-Electrical repair, plumbing repair and HVAC

5. Heavy Equipment – Technician and Operator Repair and operate Heavy Equipment (dozers, UB60, etc.)

6. Toll Collectors Collect toll, assist patrons with information

7. E-ZPass Customer Service Representatives and Tourist Information Center Counselors and Managers Assist customers with EZ Pass questions, renewals and payments of funds due.

8. Landscape Technicians-Maintain all grounds along the turnpike at buildings only. (Roadway mowing done by Highway Techs.)

9. Warehouse-Keep warehouse adequately supplied and assist in purchasing supplies

10. Water/Wastewater Treatment-Maintain all pumps and equipment to supply water to waste water treatment plants and mix in chemicals as needed.

11. Communications/Dispatcher-Receive, monitor and dispatch information via radio to turnpike personnel, wreckers, ambulance, fire, state police and any other emergency personnel.

12. State Police Clerks-Assist the WV State Police Troop 7 with forms, reports, letters and any other assigned duties

13. IT – Information Technology-Install, repair and maintain all network, computer, security and camera equipment.

14. Maintenance Admin & HQ Administration-Assist Directors, General Manager, Supervisors with forms, reports, letters and any other assigned duties.

15. Directors-Oversee the productivity and quality of their department.

16. Mid-Level Managers and Administrative Staff-Oversee the productivity and quality of their section of the department.

Calculating Hourly Wages into Comparable Annual Salaries
Example: The City of Beckley reported entry level Carpenters make $15.05 an hour. Using the 2,080/hours per year figure, that calculated to be $31,304.00 per year. A carpenter for the City of Beckley may make more or less than that figure depending on the number of hours s/he works.

ATI contacted each of the cities to obtain the data. The City of Charleston data may be found on the Municipal Budget website http://www.charlestonwv.gov/documents/municipal-budget-july-1-2017-june-30-2018-wed-03222017-1009. Beckley provided hourly rates and the data in Table A reflects the product of the hourly rate x 2,080 hours. Princeton is unique in that they have only two classifications, one for heavy equipment operator and the rest are a labor rate. Laborer are expected to perform a multitude of tasks and duties as assigned. The data for Princeton is also the hourly rate x 2,080 hours.

WVPA as Compared to Charleston, Beckley and Princeton document the WVPA wages are lower than the three cities except for the Heavy Equipment Operator and the Water/Wastewater Treatment (Table 41).

Table 41: WVPA Entry Level Wages as Compared to Municipalites Entry Wages

POSITIONS	WVPA	Charleston	Beckley	Princeton
Carpenter	$20,134	$30,108	$31,304	$24,544
Clerk, State Police	$23,462	$26,008	$30,170	
Communications/Dispatcher	$23,982	$24,770	$35,942	
Customer Service, E-ZPass Representatives and Tourist Information Center Counselors	$23,462			
Heavy Equipment Operator	$31,553	$27,309	$23,483	$27,331
Highway Technician	$20,134	$22,467	$22,048	
Information Technology	$23,524	$34,854	$25,002	
Landscape Technicians	$20,134	$22,467	$20,779	
Mechanic	$20,134	$31,613	$23,483	$24,544
Toll Collectors	$25,771	NA		
Utility Craftsman	$20,134	$33,194	$24,565	$24,544
Warehouse	$20,134			
Water/Wastewater Treatment	$28,309		$27,040	

WVPA as Compared to Local Boards of Education

Kanawha County[3] and Raleigh County[4] Board of Education data was obtained from the perspective system's websites. Mercer County data was derived from the West Virginia Department of Education Service Salary Schedules by Counties website.[5] The salary comps may not be 100% accurate due to the

[3] https://kcs.kana.k12.wv.us/Uploads/Documents/294/2017-2018%20Salary%20Schedule.pdf
[4] https://boe.rale.k12.wv.us/cms/lib/WV01919578/Centricity/Domain/1343/Salary_Schedule_Service.pdf
[5] https://wvde.state.wv.us/finance/files/Data/2016-17/Service%20Salary%20Schedules%20by%20County%2017.pdf

number of days each position may work. Data is reported by WVDE position code. The classification by grade may be found in WV Code18A-4-8a.[6]

Table 42 data reflects the disparity between the counites. Kanawha County BOE exceeds WVPA in all job classifications. Raleigh is lower in two classifications, Clerks and Water/Wastewater. Mercer County BOE is lower except for two classifications Mechanic and Utility Craftsman but only by minimal amounts.

Table 42: WVPA Entry Level Wages as Compared to Local Boards of Education Entry Wages

POSITIONS	WVPA	Kanawha	Raleigh	Mercer
Carpenter	$20,134	$30,738	$23,310	
Clerk, State Police	$23,462	$26,664	$21,640	$18,900
Communications/Dispatcher	$23,982			
Customer Service, E-ZPass Representatives and Tourist Information Center Counselors	$23,462			
Heavy Equipment Operator	$31,553			
Highway Technician	$20,134			
Information Technology	$23,524			
Landscape Technicians	$20,134		$21,200	$18,522
Mechanic	$20,134	$29,616	$23,310	$20,421
Toll Collectors	$25,771			
Utility Craftsman	$20,134	$30,250	$23,630	$20,709
Warehouse	$20,134	$27,415	$21,620	$19,377
Water/Wastewater Treatment	$28,309		$23,630	$20,709

WVPA as Compared to WV Department of Transportation

The construction, development and maintenance of the 88-mile WV Turnpike (Interstate 77) is the responsibility of the WVPA, not the WVDOT Division of Highways (DOH), despite being part of the state roadway system. WVPA could be described as one of the agencies under DOH, but all its expenses are payable solely from the proceeds of WVPA revenue. It would be easy to assume that the workers, performing highway construction and maintenance would mirror many of the positions and classifications of the WVDOT, but that is not the case. WVPA pay scales and classifications are different. When the Appalachian Transportation Institute completed the 2007 workforce study for the WVDOT, a specific request was to report the salary difference between the Transportation Worker 2 and 3 series as compared to WVPA wages. In 2007 the WVPA paid higher wages in all the categories. WVDOT was able to adjust the pay scale for those workers based on the published survey data.

[6] http://www.legis.state.wv.us/wvcode/chapterentire.cfm?chap=18A&art=4&section=8a

Table 43: WVPA Entry as Compared to WV Department of Transportation			
POSITIONS	WVPA	DOH Equivalent Title	WVDOT
Carpenter	$20,134	Transportation Worker 2-Building and Trades	$24,482
Clerk, State Police	$23,462	Office Assistant 2	$18,552
Communications/Dispatcher	$23,982	Telecommunicator	$19,992
E-ZPass CSR	$23,462	DMV CSR	$20,472
Heavy Equipment Operator	$31,553	Transportation Worker 3 Equipment Operator	$35,027
Highway Technician	$20,134	Transportation Worker 2 Equipment Operator	$22,464
Information Technology	$23,524	Programmer Analyst 2	$41,830
Mechanic	$20,134	Transportation Worker 3 Mechanic	$35,027
Toll Collectors	$25,771		
Utility Craftsman	$20,134	Transportation Worker 3 Building and Trades	$35,207
Warehouse	$20,134	Highway Store Keeper	$23,592
Water/Wastewater Treatment	$28,309		

WVPA as Compared to Contiguous States

The American Association of State Highway and Transportation Officials (AASHTO) conducts annual salary surveys of each state. The data in Table 44 compares salaries between WVPA and Kentucky, Maryland, Ohio, Pennsylvania and Virginia. AASHTO does not survey for all classifications. Table 44 lists only those classifications which are similar. Virginia would be the most likely competitor for qualified workers from the WVPA and is lower for Heavy Equipment Operators. The largest disparity is between IT workers, a +$48,000 difference.

Table 44: Entry WVPA as Compared to Contiguous States						
POSITIONS	WVPA	KENTUCKY	MARYLAND	OHIO	PENNSYLVANIA	VIRGINIA
Heavy Equipment Operator	$31,553	$21,886	$36,333	$40,123	$31,335	$26,146
Highway Technician	$20,134	$19,897	$24,056	$32,864	$27,286	$24,288
Information Technology	$23,524	$51,160	$52,304	$66,331	$55,785	$68,398
Mechanic	$20,134	$30,304	$35,629	$38,730	$49,898	$38,709

WVPA as compared to Private Industry

It is difficult to get wage data from private industry. In lieu of contacting major employers in the area, ATI accessed the Bureau of Labor Statistics' *May 2016 State Occupational Employment and Wage Estimates for West Virginia*.[7] The Contractors Association of WV (CAWV) also supplied data for comparable occupations (Table 45). The only occupation that is reported as less than the WVPA is the classification of Toll Collectors. Because the WVPA is the only employer of Toll Collectors in WV, the BLS compares it to cashiers, which, in our opinion is not entirely a comparable classification.

Table 45: WVPA Entry Compared to Private Industry Entry Average

POSITIONS	BLS Code and Title	WVPA	2016 WV BLS Data	CAWV Average
Carpenter	47-2031 Carpenter	$20,134	$42,430	$54,080
Clerk, State Police	43-4031 Court Municipal & Licensing Clerk	$23,462	$30,400	$33,280
Communications/Dispatcher	43-5032 Dispatch, Except Police, Fire & Ambulance	$23,982	$36,340	
Customer Service, EZ Pass Representatives and Tourist Information Center Counselors	43-4051 Customer Service Representative	$23,462	$30,280	
Heavy Equipment Operator	47-2073 Operating Engineers & Other Construction Repair Equipment Operators	$31,553	$45,730	$56,160
Highway Technician	49-9071 Maintenance & Repair Workers General	$20,134	$30,910	$49,920
Information Technology	15-1152 Computer Support Specialist	$23,524	$48,150	
Landscape Technicians	37-3011 Landscaping and Grounds keeping Workers	$20,134	$23,190	$49,920
Mechanic	49-9043 Maintenance Workers Machinery	$20,134	$33,480	$47,840
Toll Collectors	41-2011 Cashiers	$25,771	$20,080	
Utility Craftsman	47-2111 Electricians	$20,134	$51,690	$54,080
Warehouse	53-7062 Laborer and Freight, Stock and Material Movers	$20,134	$26,670	
Water/Wastewater Treatment	51-8031 Water & Wastewater & Treatment Plant and System Operator	$28,309	$35,800	$54,080

[7] https://www.bls.gov/oes/current/oes_wv.htm

Section V: Performance/Merit Pay Options

Financial incentives beyond those of simple base compensation have been tied to theories of worker motivation and efforts to produce improvements in both employee performance and productivity (Pearce and Perry, 1983). Merit pay advocates contend that when workers perceive that their efforts are recognized and rewarded, they experience feelings of accomplishment, belonging, and esteem.

Historical Framework

The origins of merit pay concepts in public service date back to the 1883 Pendleton Act[8], legislation that was designed to protect federal employees from partisan politics and established the basis of neutral civil service examination (Ingraham and Rosenbloom, 1990). The post-Civil War era leading up to its passage saw dramatic growth in the patronage system for federal employment and the 1881 assassination of President James A. Garfield (by a campaign worker who felt that the President owed him a patronage position) solidified public appeal for reform (Theriault, 2003).

Despite the prevalent belief that reform was necessary, the Pendleton Act itself only covered a small percentage of the federal workforce, left much authority in Executive hands and failed to keep pace with the growing size of federal employment (Skrowronek, 1982). In response, attempts to formalize employment standards and accompanying compensation would undergo slow but significant changes.

The Classification Act of 1923[9] set forth in law the principle of national compensation standards based upon duties and responsibilities by occupation and rank but was heavily criticized for a narrow and cumbersome process (Wilmerding, 1935). Following the release of the Hoover Commission Reports on Federal Reorganization in 1949, additional public attention and scrutiny were focused on government employment and public administration leading to the Classification Act of 1949[10] (Lederle, 1949) that delegated some classification authority back to the agencies and managers (Ingraham and Rosenbloom, 1990).

The Incentive Awards Act of 1954 and the Salary Reform Act of 1962 brought, and later strengthened, the use of step increases and financial incentives as a means of recognizing performance in civil service. The addition of step increases or quality step increases (QSI) set forth in the Salary Reform Act remained in place until the passage of the Civil Service Reform Act of 1978 (Mavor, Broderick, and NRC, 1991).

Broadly speaking, merit pay provisions in the Civil Service Reform Act of 1978[11] signified a break from relying solely upon salary increases tied to increases in an employee's length of service. Instead, Title V of the Civil Service Reform Act 'reintroduced' the concept of performance pay in public administration. The Merit Pay System (MPS) established within the new Office of Personnel Management that pooled half of the possible annual increments for eligible employees and tied them to performance appraisals. The legislative intent of MPS was to remain revenue neutral, meaning that as some employees benefitted from the new allocations, some necessarily received lower compensation. (Jordan, 1992).

Because the Merit Pay System was not perceived as fair in some fundamental ways, it failed to establish credible links between pay and performance. A Government Accountability Office (GAO) study found that

[8] http://legisworks.org/sal/22/stats/STATUTE-22-Pg403a.pdf
[9] https://www.loc.gov/law/help/statutes-at-large/67th-congress/Session%204/c67s4ch265.pdf
[10] https://www.gpo.gov/fdsys/pkg/STATUTE-68/pdf/STATUTE-68-Pg1105.pdf
[11] https://www.eeoc.gov/eeoc/history/35th/thelaw/civil_service_reform-1978.html

75 percent of covered employees were no more motivated than their GS counterparts. In 1984 Congress abolished the MPS and established the Performance Management and Recognition System (PMRS)[12] which It sunset in November 1993 with the PMRS Termination Act[13]. Many of the initial principles laid out in the Civil Service Reform Act of 1978 remain in place, but the various systems of evaluation and compensation continue to evolve.

Evaluation in the Literature

As the changing structures of merit pay systems might suggest, the literature provides a weak case for the use of merit-based compensation in public organizations, particularly when focusing on outcomes related to improved satisfaction, tenure and performance in general with the notion that incorrect implementation is at least partly to blame for inadequacies (Kellough and Lu, 1993). Fox and Shirkey (1991), for example, found a weak positive relationship between merit pay and organizational commitment (primarily as measured by increased tenure and reduced turnover) but that the relationship was weakest among younger and/or higher skilled employees. Indeed, increased earnings through merit based pay can improve satisfaction of employees if workers prefer work environments that financially reward productivity and contribution to organizational goals (Brown and Sessions, 2003). These same pressures and performance norms may increase motivation for some, but they also increase stress and diminish the quality of the work experience for others and impact work performance (Goddard, 2004). Over time, workers in such environments often experience reduced empowerment, involvement, and job satisfaction.

Perry (et al, 2009) conducted an analysis of 57 studies dealing with merit pay/pay for performance including federal, state and local government implementations concluding that performance related pay systems provide benefits, but largely fall short of intended targets.

Weibel, Rost and Osterloh (2009) help to explain the modest successes observed related to pay for performance in the public sector. Among their observations, they note that high intrinsic motivation on the employees is a driver (Cacioppe and Mock 1984; Crewson 1997; Jurkiewicz and Massey 1997; Buelens and Van den Broeck 2007) and the effect of additional incentives may thus be negligible.

Further, public funding is clearly more limited and defined than private sector funding, meaning that the price effect of pay for performance in public management tends to be rather small (Ingraham 1993; Kellough and Lu 1993; Moon 2000) in large part because pay raises may be too small to make them satisfied (Pearce, Stevenson and Perry, 1985). The observed relationship between merit-based pay and pay satisfaction may also appear small or even negative because employees do not see their level of effort reflected in received pay changes (Daley, 1987) or worker incentives usually aren't large enough to make extra effort seem worthwhile (Gaertner and Gaertner, 1985). Merit-based pay schemes also do not guarantee constant earnings and the risk that accompanies such a pay scheme may negatively influence satisfaction for risk-averse workers, particularly those approaching career milestone decisions. (Paul and John, 1992). In addition, increased earning dispersion within similar job classifications in an organization may drive workers to perceive unfairness, leading to frustration and lower morale (Green and Heywood, 2008).

[12] http://www.gao.gov/assets/150/144961.pdf
[13] https://www.congress.gov/bill/103rd-congress/house-bill/3019

Additionally, most merit pay systems are not pure incentive models but rather combine incentives with coercive mechanisms of monitoring and sanctions, that ultimately worsens impacts from asymmetric information and principal agent conflict (Harris and Raviv, 1979) and as such limits the potential effectiveness of merit pay (Miller and Whitford, 2006). Exacerbating the principal-agent problem, supervisors were found to support merit pay because they felt it gave them greater control over subordinates, while those subordinates tended to view merit pay as biased, unfair and unrelated to individual productivity (Gabris, 1986). This is not to say that managers widely embraced such systems, as Pollitt and Bouckaert (2011) note that equity and efficiency of the systems is often questioned by managers as much as the employees most directly affected, particularly when levels of institutional support were low (Nachmias and Moderacki, 1982).

Much of the information asymmetry resides in the complexities of evaluating individual performance in public sector enterprises. Aspects such as multi-tasking, multiple principals and the difficulty of defining and measuring outputs muddy the issue of the intrinsic motivation of workers (Burgess and Ratto, 2003). In fact, work assessments of complex tasks and other aspects of public service implementation have proven difficult to define (Waldron, 1988) and performance measures often viewed by workers as still subjective (O'Toole and Churchill, 1982).

Furthermore, placing substantive outcomes on the evaluation of individual performance may undermine important goals like teamwork and organizational cooperation thus promoting destructive competition and sabotage (Drago and Garvey, 1998).

Goddard (2004) further finds that when employees are frustrated and experience stress due to unmet expectations and perceived unfairness in the evaluative systems, they may blame their organizations for their own failure to earn bonuses. Such pressures and perceptions probably contribute to negative experiences in the workplace (Baker, 1992). Perry, Engbers and Jun (2009) conclude that perceptions about proper implementation of such systems are crucial to measurable system success and Murnane and Cohen (1986) add that perception can contribute toward or undermine relationships between employee actions/performance and their satisfaction with compensation from the employer more broadly.

Implications and Conclusions

"Although merit pay is desirable in principle, its effectiveness may be severely constrained or negated within the environment" of the public sector because of inherently ambiguous performance goals, budgetary restraints and freedom of information about individuals' salaries (Pearce and Perry, 1983). The continued prevalence of merit pay systems in the public sector despite evidence that such systems do not always perform well or as intended, speaks to the continued preference to adapt systems to the principles of equity and efficiency generally related to notions of running government like a business despite inherent differences (Rainey, 2009) and weak track record of success (Weibel, Rost and Osterloh, 2009). This suggests that an understanding of the desired goals for any such system, the means for evaluating performance and proper tools for measuring the effectiveness of merit-based pay systems are key variables for potential successful outcomes.

Merit Increase in West Virginia

WV Department of Transportation Merit Increase Policy became effective in 1981, with the explicit purpose of providing merit-based increases to a limited number of employees for meritorious

performance.[14] Republished in September of 2017, the Merit Increase Policy guidelines provide that a control figure for merit purposes will be established and approved "for each fiscal year for each District and Division" representing the total amount that the payroll can be increased by the operation of the policy and that it is dependent upon availability of funds. The policy is effective for any given fiscal year, "only upon being triggered by establishment of control figures." Option(s) for the level of increase are to be established as part of working guidelines, but are not specifically prescribed in the policy itself.

The WVDOT Merit Increase Policy, and particularly its potential adaptation to WVPA, leave open the potential for many of the weaknesses identified in the review of the literature on merit pay generally. Among these are, concerns over adequate funding, perceived inequities in performance awards, infrequent timing of award payments and conflict between raters and those being evaluated. It should be noted here that the WVDOT policy only requires that a performance appraisal be on file with the Human Resources Division and makes no direct tie to that evaluation and the criteria for any merit increases.

West Virginia Parkways Authority pay scales, effective July 2014, currently provide a mechanism for merit increases, but the implementation remains frozen dating back to the Manchin Administration.

While the potential weaknesses of merit pay are significant, the prevalence of such systems and continued interest in the implementation of market principals suggest that pay for performance will not simply disappear. Additional performance based options that may help offset these issues include broadening incentives beyond financial awards, focusing on team performance rather than the individual, a clear definition of performance expectations for potential awards and adequate funding for merit-based programs (if and when they are implemented).

[14] WVDOT Administrative Operating Procedures Volume III, Chapter 14

Section VI: The Future

Technology has, and will continue to have an impact on the workforce employed by the WVPA. The International Bridge, Tunnel and Turnpike Association (IBTTA), discussed the transformation of the industry from the traditional method of cash collection to a cashless tolling method such as the E-ZPass system currently used by the WPA today. As the industry transforms, it will move from having both a traditional means to collect cash and dividing the physical paths for individuals that possess a pass or tag making this system partially electronic. Electronic tolling includes a fast pace collection system that aims to gather revenue with reduced wait time. The vehicle tags allow vehicles to pass through quickly and do not require an individual to stop and pay for the pass. It is based on a use fee or a monthly/yearly payment and is paid for online. If a violator enters without a pass the vehicles number plate is recorded and a notice is sent along with a penalty charged. [15]

Other future technologies were presented by HNTB in their paper, *How Americans Growing Connectivity Will Affect Toll Industry.* The author highlights the importance of technology being interconnected and helping bring about more efficiencies gained from electronic toll systems. Mobile phones are a common technology and are accessible to everyone. Thus, creating mobile applications for tolling would aid the general public especially travelers. However, simply relying on mobile applications is not a solution and the article discusses the importance of appreciating various mediums for the job based on the nature of communication. Different forms require different types of communication based on the requirements in place. For faster medium and secure information, short-range communication methods would be favored over cellular means. Similarly, virtual gantries using GPS systems as well as Digital mapping technology would be constructed and replace physical ones. This would add to savings due to reduction and maintenance of physical structures.[16]

The adoption of fully electronic systems in California, Colorado, Florida, Georgia, Massachusetts and Texas have led to the replacement of full time employees.[17] Even though the WV Turnpike is not fully electronic, the adoption of the E-ZPass system has resulted in more need for back office positions at the WVPA. Currently, the Toll Division staff numbers 148 and the customer service staff numbers 29. As the reliance on technological systems increase, it is predicted that the CSR, back office staff will grow, while the toll booth collectors will become less and less, and at some point, obsolete.

The need for Toll Collectors along the WV Turnpike will not go away soon. More than likely, over time, the electronic collection lanes will increase, with less and less lanes devoted to cash collections.

The WVPA Directors were asked to provide input regarding the future by participating in a focus group held November 7, 2017. When asked to identify the skill sets needed for the future and the occupations

---

[15] IBTTA. Electronic Tolling: Benefits, Challenges and What's Needed. 2017. https://www.ibtta.org/sites/default/files/Electronic%20Tolling%20Flyer.pdf.

[16] HTNB Corporation. How American's growing connectivity will affect the toll industry. 2017. http://hntb.com/ThoughtLeadership/Insights/Connectivity-and-the-toll-industry.

[17] Bergal, Jenni. No More Toll Booth Collectors. July 27, 2015. http://www.governing.com/topics/mgmt/no-more-toll-booth-collectors.html.

of the future, their comments supported the literature in that many of the responses were related to the future cashless technology systems. They predict a need for:

- Violation specialists
- Electronic toll maintenance positions
- Open road tolling back office staff
- Information Technology (IT) specialists
- Customer Service Representatives with excellent communication skills.

There is a need for increased training and development opportunities including:

- Certificates and licenses on specific computer equipment and connected information systems
- Career pathways leading to positions needed by WVPA
- Customer Service training
- Supervisory and management training.

Section VII: Recommendations

Recommendations related to pay scales, job classifications and merit pay:

- Job classifications and accompanying salary schedules should be updated to account for changes in job complexity, duties and cross-training.
- Special attention should be given to job classifications that are impacted by changes in technology and/or automation (Information Technology and Toll Collector/Toll Equipment Specialists as examples).
- Salary levels should be broadly consistent with job classifications in the region (particularly the City of Charleston and Beckley as the largest population centers).
- Salary level should be also broadly consistent with those in similar industries, particularly with comparable positions in the WVDOT where appropriate.
- Step Increase and years of service frequency and amount also need special consideration as increases are largely stagnant for more experienced employees.
- Given the substantive evidence from the literature, the use of (and reliance upon) merit pay as a means of reducing turnover and increasing tenure alone is not recommended.
- Respondent survey data clearly indicates that pay and benefits are decision drivers at WVPA, and as such, warrant attention in efforts to improve retention and reduce turnover. This is evidenced by responses indicating that:
    - 95.7% of survey respondents indicating that fair pay and benefits were either "Important" or "Very Important" reasons why they stay at WVPA;
    - 70.0% survey respondents suggesting that fair pay and benefits were either "Significant" or "Very Significant" reasons people leave WVPA;
    - And 96.3% of survey respondents indicated that improving pay and benefits would be either "Effective" or "Very Effective" at reducing turnover.

Recommendations related to education, development and growth:

- Establish policy for pay increases based on job specific credentials, years of service, and relevant education attainment.
- Implement the use of OASIS to track education and development completions of employees.
- Develop a strategic plan which would target future skill sets and utilize tuition reimbursement dollars to "grow your own".
- Develop and implement a leadership/supervisory program to assist workers moving into management and supervisory positions.
- Enter into an agreement with the WVDOT to train and educate Highway Technicians under the collaborative effort between the West Virginia Division of Highways (WVDOH) and BridgeValley Community and Technical College. The program provides a career path for people who are certified technicians with the WV Transportation Engineering Technician and Bridge Safety Inspector Certification Board with professional development opportunities and a formal education that is measured and evaluated through the certification process. Technicians who are certified by this board may advance through a series of five levels based on their years of work experience and technical competency in the various technical aspects of the highways field.
- Explore avenues to maximize the use of full-time employees to off-set seasonality issues and the hiring of temporary workers. This could potentially be accomplished through agreements with

WVDOT (and other agencies as applicable) that also experience challenges arising from seasonal demand.

Recommendations related to technology:

Develop a worker focused technology strategic plan which would:

- Identify obsolete policies and procedures related to technology selection, allocation and access to Internet and other social media applications
- Recommend new policies to address IT governance to enable employees to utilize technology and applications which would improve their efficiency
- Identify which/what type of technology will bring value to the department
- Establish a flexible technology roadmap that lays out the timing of the strategy implementation as well as "who should have what, when."

As data and toll collections shift towards more automation and electronics, the required skill sets of employees will also shift. Develop a technology strategic plan to manage the technology driving the tolling industry which would:

- Describe the skill sets needed to operate and maintain electronic data collection and tolling equipment.
- Eliminate the broad classification of "IT Technician" and specifically identify the job title most fitting to the duties.
- Determine the time line of technology implementation to control the number of workers and positions needed as the toll plazas become more electronic.

Attachment A: Background Information

General Information about the Turnpike

- The West Virginia Turnpike opened as a two-lane highway in 1954 and cost $133 million to construct. The Turnpike is now a four-lane interstate between Charleston and Princeton.
- The West Virginia Parkways Authority has statutory authority to provide for the construction, development and maintenance of 88 miles of interstate roads that constitute the West Virginia Turnpike.
- Its mission is to operate and maintain the West Virginia Turnpike safely and efficiently. In April 2007, the Parkways Authority Board adopted a Resolution refocusing the core mission of the Parkways to maintenance and upkeep of the Turnpike.
- In 2010, Senate Bill 427 was enacted which again renamed and reorganized the West Virginia Parkways Authority. This bill gave the Parkways Authority the authorization to construct new toll road projects by issuing bonds secured with toll revenues; however, bonds sold for new toll road construction cannot be used for the West Virginia Turnpike pursuant to Section §17-16A-10(a) which states that "the Parkways Authority is authorized to provide by resolution for the issuance of parkway revenue bonds of the state for the purpose of paying all or any part of the cost of one or more parkway projects: Provided, That this section shall not be construed as authorizing the issuance of parkways revenue bonds for the purpose of paying the cost of the West Virginia Turnpike…". The aggregate amount of the West Virginia Turnpike's outstanding principal amount of bonds cannot exceed $200 million. The Parkways Authority currently employs approximately 360 full time and part-time employees, with positions in toll, maintenance and administration, with State benefits.
- Performs pavement and bridge maintenance and rehabilitation of the Turnpike's 426 lane miles of roadway, 18 interchanges and 116 bridges.
- Performs snow removal and ice control during inclement weather along the entire length of the 88-mile Turnpike as well as on the parking lots of the three full service Travel Plazas at Morton, Beckley and Bluestone, two Rest Areas at Bluestone and at Milepost 69 and one Welcome Center at Princeton along the Turnpike.
- Provides tourist information at the travel plazas and the welcome center where West Virginia made arts and crafts are also sold.
- Provides Dynamic Message Signs to communicate with motorists about safety and congestion.
- Operates four Toll Plazas 24 hours a day, 7 days a week collecting in excess of $80 million in toll annually.
- Administers the E-ZPass electronic toll collection system which allows patrons to pass through toll barriers without stopping by using a vehicle-mounted transponder, provides efficient movement of commercial goods, provides increased levels of customer support, decreases congestion and improves air quality.

- Offers toll discount plans for WV E-ZPass passenger car customers and both WV E-ZPass commercial customers and non-WV E-ZPass commercial customers. Four (4) discount plans available to: WV E-ZPass passenger vehicles, frequent user (flat fee for unlimited use); WV E-ZPass passenger vehicles, infrequent user (35% savings); WV E-ZPass commercial vehicles (20-35% savings; Non-WV E-ZPass commercial vehicles (13% savings). WV citizens who participate in the E-ZPass non-commercial commuter pass program are able to deduct from adjusted gross income up to $1,200 per year on their state income tax return for taxable years beginning on or after January 1, 2007 (minimum amount eligible for deduction is $25.00).
- Funds and supports State Police Troop 7, consisting of up to 31 State Police officers and two Public Service Commission Commercial Motor Vehicle Inspectors, who provide 24-hour law enforcement on the Turnpike.
- Operates a 24-hour communications system that links State Police, emergency services and wrecker services and ties in the interdepartmental Turnpike toll plazas and maintenance departments.
- Operates a 16-hour (3 pm-7am), 7-day internal Courtesy patrol/Motorist Assist Program that covers the entire length of the Turnpike and operates in coordination with Troop 7[18].

The West Virginia Turnpike was scheduled to be transferred to the WV Division of Highways in May 2019. In June 2017, Governor Jim Justice signed Senate Bill 1003 that authorized the WVPA to issue revenue bonds and to finance road projects and use toll revenues to pay for those bonds. In addition, Governor Justice also signed Senate Bill 1006, supporting his highway financing and construction plan. The WVPA will continue to operate and maintain the WV Turnpike and could expand if additional toll roads or structures are built in other areas of the state.

[18] http://transportation.wv.gov/Turnpike/about/Documents/GENERAL%20INFORMATION.pdf

Attachment B: Bibliography

Baker, G. P. (1992). Incentive contracts and performance measurement. *Journal of political Economy*, *100*(3), 598-614.

Brown, S., & Sessions, J. G. (2003). Earnings, Education, and Fixed-Term Contracts. *Scottish Journal of Political Economy*, *50*(4), 492-506.

Buelens, M., & Van den Broeck, H. (2007). An analysis of differences in work motivation between public and private sector organizations. *Public administration review*, *67*(1), 65-74.

Burgess, S., & Ratto, M. (2003). The role of incentives in the public sector: Issues and evidence. *Oxford review of economic policy*, *19*(2), 285-300.

Cacioppe, R., & Mock, P. (1984). A comparison of the quality of work experience in government and private organizations. *Human Relations*, *37*(11), 923-940.

Crewson, P. E. (1997). Public-service motivation: Building empirical evidence of incidence and effect. *Journal of public administration research and theory*, *7*(4), 499-518.

Daley, D. (1987). Merit pay enters with a whimper: The initial federal civil service reform experience. *Review of Public Personnel Administration*, *7*(2), 72-79.

Drago, R., & Garvey, G. T. (1998). Incentives for helping on the job: Theory and evidence. *Journal of labor Economics*, *16*(1), 1-25.

Fox, C. J., & Shirkey, K. A. (1991). Employee performance appraisal: The keystone made of clay. *Public personnel management: Current concerns, future challenges*, 58-71.

Gabris, G. T. (1986). Can Merit Pay Systems Avoid Creating Discord Between Supervisors and Subordinates?: Another Uneasy Look At Performance Appraisal. *Review of Public Personnel Administration*, *7*(1), 70-89.

Gaertner, K. N., & Gaertner, G. H. (1978). Performance evaluation and merit pay: Results in the environmental protection agency and the mine safety and health administration. *Legislating Bureaucratic Change: The Civil Service Reform Act of*, 87-111.

Godard, J. (2004). A critical assessment of the high-performance paradigm. British journal of industrial relations, 42(2), 349-378.

Green, C., & Heywood, J. S. (2008). Does performance pay increase job satisfaction? *Economica*, *75*(300), 710-728.

Harris, M., & Raviv, A. (1979). Optimal incentive contracts with imperfect information. *Journal of economic theory*, *20*(2), 231-259.

Ingraham, P. W., & Rosenbloom, D. H. (1990). Political Foundations of the American Federal Service: Rebuilding a Crumbling Base. *Public Administration Review*, *50*(2), 210-19.

Jordan, D. (1992). The evolution of federal personnel management evaluation. *New Directions for Evaluation*, *1992*(55), 73-81.

Jurkiewicz, C. L., & Massey Jr, T. K. (1997). What motivates municipal employees: A comparison study of supervisory vs. non-supervisory personnel. *Personnel Administration*, *26*(3), 367-377.

Kellough, J. E., & Lu, H. (1993). The paradox of merit pay in the public sector: Persistence of a problematic procedure. *Review of Public Personnel Administration*, *13*(2), 45-64.

Lederle, J. W. (1949). The Hoover Commission reports on federal reorganization. *Marquette Law Review*, *33*, 89.

Mavor, A. S., Broderick, R. F., & National Research Council. (1991). *Pay for performance: Evaluating performance appraisal and merit pay*. National Academies Press.

Miller, G. J., & Whitford, A. B. (2006). The principal's moral hazard: Constraints on the use of incentives in hierarchy. *Journal of Public Administration Research and Theory*, *17*(2), 213-233.

Moon, M. J. (2000). Organizational commitment revisited in new public management: Motivation, organizational culture, sector, and managerial level. *Public performance & management review*, 177-194.

Murnane, R., & Cohen, D. (1986). Merit pay and the evaluation problem: Why most merit pay plans fail and a few survive. *Harvard educational review*, *56*(1), 1-18.

Nachmias, D., & Moderacki, P. J. (1982). Patterns of support for merit pay and EEO performance: The inherent difficulties of implementing innovation. *Policy Studies Journal*, *11*(2), 318-327.

O'Toole, D. E., & Churchill, J. R. (1982). Implementing pay-for-performance: Initial experiences. *Review of Public Personnel Administration*, *2*(3), 13-28.

Paul, M., & John, R. (1992). Economics, organization and management.

Pearce, J. L., & Perry, J. L. (1983). Federal merit pay: A longitudinal analysis. *Public administration review*, 315-325.

Pearce, J. L., Stevenson, W. B., & Perry, J. L. (1985). Managerial compensation based on organizational performance: A time series analysis of the effects of merit pay. *Academy of Management journal*, *28*(2), 261-278.

Perry, J. L., Engbers, T. A., & Jun, S. Y. (2009). Back to the future? Performance-related pay, empirical research, and the perils of persistence. *Public Administration Review*, *69*(1), 39-51.

Pollitt, C., & Bouckaert, G. (2011). *Public Management Reform: A comparative analysis-new public management, governance, and the Neo-Weberian state*. Oxford University Press.

Rainey, H. G. (2009). *Understanding and managing public organizations*. John Wiley & Sons.

Sewell, M. (1991). 'All the English-Speaking Race is in Mourning': the Assassination of President Garfield and Anglo-American Relations. *The Historical Journal*, *34*(3), 665-686.

Skowronek, S. (1982). *Building a new American state: The expansion of national administrative capacities, 1877-1920*. Cambridge University Press.

Van Riper, P. P. (1958). The senior civil service and the career system. *Public Administration Review*, 189-200.

Waldron, L. (1988). The dilemma of merit pay in the public sector. *Asia Pacific Journal of Human Resources*, *26*(3), 8-17.

Weibel, A., Rost, K., & Osterloh, M. (2009). Pay for performance in the public sector—Benefits and (hidden) costs. *Journal of Public Administration Research and Theory*, *20*(2), 387-412.

Wilmerding, L. (1935). *Government by Merit: An Analysis of the Problem of Government Personnel* (Vol. 12). McGraw-Hill.

Attachment C: Survey Questions

RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

WV Parkways Authority Workforce Study

INTRODUCTION

Thank you for participating in the WV Parkways Authority Workforce Survey designed by the Rahall Transportation Institute (RTI) at Marshall University.

PURPOSE: West Virginia's workforce is aging and competition for skilled workers is increasing. The transportation sector is predicting a shortage of qualified workers in the near future. The results of this survey will be used in a study to help the WVPA identify strategies for success in recruiting and retaining the workforce they need to operate over the next 5-10 years.

TIME TO COMPLETE: 7-15 Minutes. Average time: 10 minutes

CONFIDENTIALITY: Your responses are confidential. You are not identified as an individual. WVPA will not have access to individual responses, nor will they be given individual responses.

RESULTS: RTI will provide WVPA with the results of the survey in the form of statistics, charts, graphs and written reports. All reports will be available on the RTI website for the public. njrati.org

DIRECTIONS: You will be asked your opinion on workforce questions (retirement, career development, recruitment, retention, technology). Please select the answer YOU believe to be the best. When you reach the bottom of the page, click on the "Next" button until you reach the end of the survey.

The last page says "Thank you for completing the survey." That means we have your data! Thank you!

RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

WV Parkways Authority Workforce Study

Background

These questions relate to your demographics

Select the job group that best describes your job

- Communication/Dispatch
- Customer Service
- Heavy Equipment Operator
- Information Technology
- Landscaping
- Maintenance
- Management
- Toll
- Tourist Information
- Other, please specify

2. What is your age?*

3. How many years have you worked for the WV Parkways Authority?*

4. What is your employment status?*
   - Full Time
   - Part Time

5. Do you have another job in addition to your employment with WVPA?
   - Yes
   - No

6. What is your highest level of education? *

   Pick one
   - Less than High School Diploma
   - High School Diploma
   - Post Secondary Career and Technical Certificate or Credential
   - Associate's Degree
   - Bachelor's Degree
   - Professional License
   - Master's Degree
   - Doctorate
   - Other, please specify

7. Gender:*
   - Male
   - Female

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

WV Parkways Authority Workforce Study

Retirement

The next questions focus on your plans for retirement.

8. Please specify the year you will be eligible to retire:*
   - I am eligible to retire
   - 2017
   - 2018
   - 2019

- Beyond 2021

9. In the year you are eligible to retire, how likely are you to retire?*
   - Very Likely
   - Likely
   - Neutral
   - Unlikely
   - Very Unlikely

10. How likely are you to work at WVPA after your retirement?*
    - Very Likely
    - Likely
    - Neutral
    - Unlikely
    - Very Unlikely

11. How likely are you to seek employment (other than WVPA) after your retirement?*
    - Very Likely
    - Likely
    - Neutral
    - Unlikely
    - Very Unlikely

12. If you were allowed to work flexible hours after you were eligible to retire, how likely is it that you would continue to work for WVPA?*
    - Very Likely
    - Likely
    - Neutral
    - Unlikely
    - Very Unlikely

13. After you are eligible to retire, how likely would you continue to work if you could negotiate your job duties and responsibilities? *
    - Very Likely
    - Likely
    - Neutral
    - Unlikely
    - Very Unlikely

14. How likely will your health affect your decision to retire or not when you are first eligible?*
    - Very Likely
    - Likely
    - Neutral
    - Unlikely
    - Very Unlikely

15. How likely will your financial situation affect your decision to retire or not when you are first eligible?*
    - Very Likely
    - Likely
    - Neutral
    - Unlikely
    - Very Unlikely

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

WV Parkways Authority Workforce Study

Career Development

This series of questions focuses on your experience and career development as an employee at WVPA.

16. How satisfied are you in your current position?*
- Very Satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very Dissatisfied

17. In the next year, how likely are you to search for a new job and leave WVPA?*
- Very Likely
- Likely
- Neutral
- Unlikely
- Very Unlikely

18. How similar is your job description and your day to day activities?*
- Very similar
- Somewhat similar
- Neutral
- Somewhat dissimilar
- Very dissimilar

19. How important is it for you to be promoted?*
- Very Important
- Important
- Neutral
- Not Important
- Very Not Important

20. Have you moved into a new job classification over the last 3 years?*
- Yes
- No

21. Have you moved up in a pay grade over the last 3 years?*
- Yes
- No

22. Have you moved into a management/supervisory position over the last 3 years?*
- Yes
- No

23. Over the past 3 years how many times have you been evaluated?*
- 0
- 1
- 2
- 3
- More than 3

24. How satisfied have you been with your evaluation process?*
- Very Satisfied
- Satisfied
- Neutral
- Not Satisfied
- Very Not Satisfied

job?*

- Very Useful
- Useful
- Neutral
- Useless
- Very Useless

26. Do you feel you have been fairly evaluated in the past?*

Yes No

27. Do you feel you you will be fairly evaluated in the future?*

Yes No

28. Have you been cross trained for another position in the last 3 years?*

Yes No

29. Over the past 3 years how many WVPA training courses (not required) have you taken?*

- 0
- 1-2
- 3-4
- 4-5
- More than 5

30. Over the past 3 years how many college courses has the WVPA reimbursed you for your tuition?*

- 0
- 1-2
- 3-4
- 4-5
- More than 5

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

WV Parkways Authority Workforce Study

Retention: Why Do You Stay?

Below is a list of factors that people say are important to them and their job satisfaction. How important are each of these items to you and why YOU STAY at WVPA?

31. A sense of control over my work*

- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

32. Being part of a team*

- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

34. Cutting edge technology*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

35. Exciting work and challenge*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

36. Fair pay and benefits*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

37. Family friendly*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

38. Flexibility in work hours*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

39. Effective management*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

40. Great co-workers*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

41. Great work environment*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

42. Job security*

- Important
- Neutral
- Unimportant
- Very Unimportant

43. Location*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

44. Meaningful work*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

45. Recognition for work well done*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

46. How important is your job to the overall organization?*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

47. How important is your job from your supervisor's perspective?*
- Very Important
- Important
- Neutral
- Unimportant
- Very Unimportant

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

WV Parkways Authority Workforce Study

Retention: Why Do Others Leave?

Consider the employees you have known who have quit WVPA. How significant were the following work conditions in their decisions to leave?

48. Lack of a sense of control over their work*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

50. No opportunities for career growth, learning and development*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

51. No use of technology*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

52. Boring work/No challenges*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

53. Unfair pay and benefits*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

54. Not family friendly*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

55. No flexibility in work hours*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

56. Poor management*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

57. Poor relationship with co-workers*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

58. Poor work environment*

- Significant
- Neutral
- Insignificant
- Very Insignificant

59. No job security*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

60. Bad location*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

61. Meaningless work*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

62. No recognition for work well done*
- Very Significant
- Significant
- Neutral
- Insignificant
- Very Insignificant

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

WV Parkways Authority Workforce Study

Reducing Turnover

What can WVPA do to reduce turnover and improve retention? How effective would these improvements be to improve retention of current employees and recruit new workers?

63. Increase workers' sense of control over work*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

64. Increase team work and team accountability*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

66. Implement the use of cutting edge technology*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

67. Make work more exciting and challenging*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

68. Improve pay and benefits*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

69. Become more family friendly*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

70. Allow flexibility in work hours*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

71. Improve management skills*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

72. Allow input in new hire selection*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

73. Improve work environment*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

74. Improve job security*

- Effective
- Neutral
- Ineffective
- Very Ineffective

75. Change the location*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

76. Provide meaningful work*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

77. Provide recognition for work well done*
- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

WV Parkways Authority Workforce Study

Technology

The next questions ask about your use of technology.

78. How many hours a day do you use a computer at work?*
- 0
- 1
- 3
- 5
- More than 5

79. How many hours a day do you use a computer in your personal life?*
- 0
- 1
- 3
- 5
- More than 5

80. What new or upgraded technology have you received over the past year? (job related).*
- Computer work station
- Tablet (iPad, Kindle, etc)
- Smartphone
- New software
- Software update
- Office equipment (fax, printer etc)

81. Do you use any of these PERSONALLY owned devices to help you do your job at work? Check all that apply. *

- ☐ Computer work station
- ☐ Tablet (iPad, Kindle, etc)
- ☐ Smartphone
- ☐ Telephone
- ☐ Other, please specify

82. Think about how you send/receive information at work. For each item below, indicate if the frequency of use has increased or decreased over the last two years.

	I do not use at work	I use more frequently	I use less frequently	Use is about the same
Internet	○	○	○	○
Text messages	○	○	○	○
Paper letters and memos	○	○	○	○
Face to face meetings	○	○	○	○
Webinars	○	○	○	○
Telephone	○	○	○	○
Conference calls	○	○	○	○
Virtual/video meetings	○	○	○	○
Social Media	○	○	○	○

83. If you knew you could have it, what technical device, application or training would you request to use on the job?

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

WV Parkways Authority Workforce Study

Thank you for taking part in our survey!