

WV DOT



WORKFORCE DEVELOPMENT STUDY EXECUTIVE SUMMARY



“Building Jobs through Transportation”
www.marshall.edu/rti

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STUDY PROGRESSION

June 7, 2006	Original meeting/request for proposal
June 27, 2006	Proposal submitted
July 31, 2006	Initial steering committee meeting
August –September, 2006	Literature review
October 10, 2006	WVDOT database obtained
November 1, 2006	Second run database obtained
November 2006	Update to Commissioner Mattox and Districts
November 2006	Focus group meeting with transportation workers
December 1, 2006	Steering committee review of survey
December 5, 2006	Letter from Mattox announcing survey distributed
December 7-January 7, 2007	Survey live
January 16, 2007	Steering committee briefed on initial findings
February 2007	Final report presented

EXECUTIVE SUMMARY



Purpose

The purpose of the West Virginia Department of Transportation 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 shortage of workers; reduce turnover; attract the skilled personnel needed by the department and to develop a cooperative infrastructure of education and training providers.

Research Questions

1. What are the current demographics of WVDOT Workers?
2. What are the potential retirements during the next five years (2007-11)?
3. Of those eligible to retire, how many will retire during the next five years?
4. What job classifications have the highest level of turnover?
5. How do WV salaries compare to other southeastern states', especially those states that border WV?
6. What is the relationship between

WVDOT and education and training providers in WV?

7. What education and training programs need to be developed and implemented to meet WVDOT future needs?
8. What new credentials, job classification are on the horizon?
9. Which job classifications are being impacted by technology and need to be reclassified, upgraded or eliminated?
10. What can WVDOT do to reduce turnover?
11. How have other states addressed workforce issues? Are those practices applicable in WV?

Scope of Work

The scope of work involved four major components.

1. Review of the current literature.
2. Web-enabled worker survey.
3. Interviews with southeastern states' DOT personnel to collect data for salary comparisons and other unique practices.
4. WVDOT database demographics analysis.

Demographics

1. Workforce Demographics as of November 2006.

Total Workforce	5149
Average Age	48.66
Average Years of Service	14.29
Retirement Eligible	2200
2007-2011	(43%)
Retirement Eligible 2007	1390
	(27%)
Number Reaching age 55	
Rule of 80 Eligible	471
Workers under age 45	1753
Response to the Survey	2839
	(55%)

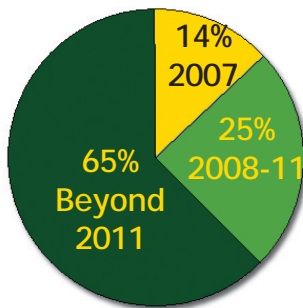
Education Levels

No High School	674
High School or GED	3455
Business/Vocational	392
Associates Degree	89
Bachelors Degree	470
Masters Degree	63
Doctorate	0
Law	6

Survey Response

A worker survey was web-enabled using SelectSurvey(TM). The survey was live December 7, 2006-January 7, 2007. 2,839 workers (55%) responded to the survey.

Retirement Eligible Date of Survey Respondents.



Findings

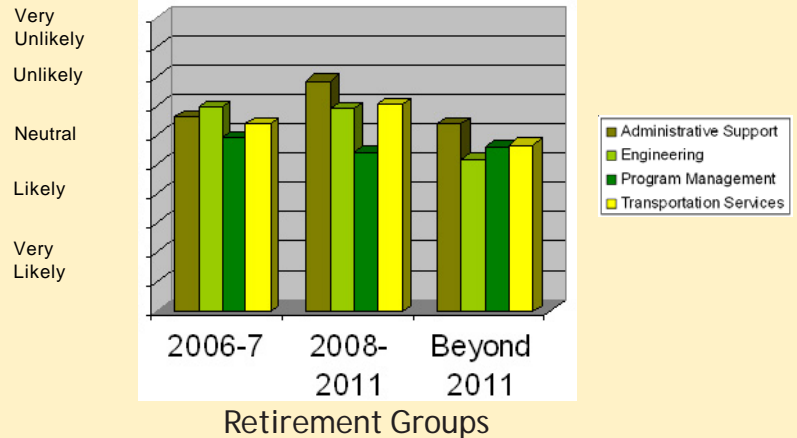
- Workers who are eligible or who will be eligible to retire in 2007 indicated they are satisfied or neutral with their jobs and, barring a threat to their benefits, they are not likely to retire this year.
- Workers indicate a willingness to stay after retirement if they could negotiate job responsibilities.
- Those eligible to retire 2008-2011 indicate they are likely to retire and they are neutral about continuing to work for the WVDOT after they are retired.
- Engineers and Transportation Workers who will be eligible to retire 2008-2011 indicate strongly they are "Likely" to retire.
- Retirements span all job classifications over 2007-2011.

Percent Eligible to Retire:

- | | |
|----------------------------|-----|
| • Acquisition and Planning | 44% |
| • Administrative Support | 50% |
| • Community Planning | 54% |

Intent of Mission Critical Workers

In the next year, how likely are you to search for a job outside of WVDOT?



- Engineering 21%
- Financial 49%
- Information Technology 37%
- Legal 48%
- Physical Science 44%
- Program Management 41%
- Real Estate 53%
- Transportation Analyst 55%
- Transportation Services 42%

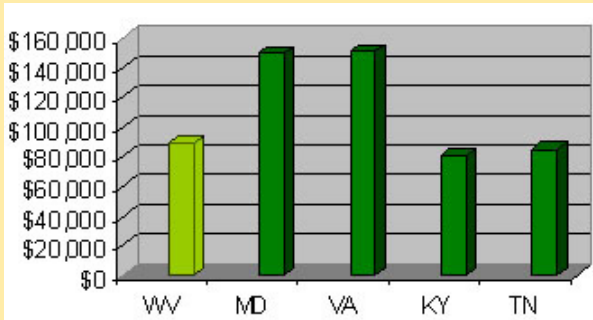
- Pay, benefits and job security are the reasons the workers will stay or leave a position.
- Workers do not want to relocate.
- Salaries are lower in WV when compared to southeastern region and contiguous border states.
- 471 workers will reach age 55 in the next 5 years and qualify for the "Rule of 80" retirement and continue health benefits for 10 years. WVDOT will be responsible for paying for those benefits. The workers indicate they are "Likely" to retire when they become eligible.
- Workers reported education and training and development opportunities were very important; the lack of such opportunities were reasons why people left the agency; and to reduce turnover, the department should offer

more opportunities in training and development. However, the respondents reported very low, if any, frequencies in participation in tuition reimbursement programs or participation in training offered by WVDOT.

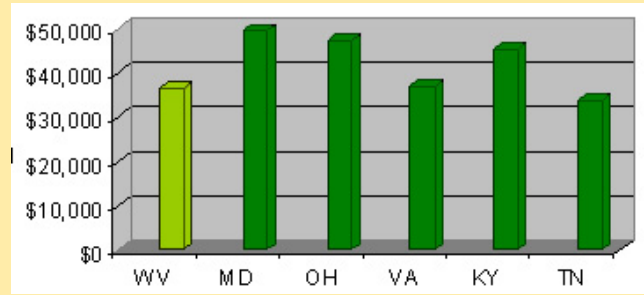
- Approximately 70% of the respondents reported using computers daily.
- New and emerging job classifications:
 - CAD Roadway Design
 - Geospatial Information Systems (GIS)
 - American Society for Photogrammetry and Remote Sensing
 - Photogrammetrist
 - Mapping, Scientist, Remote Sensing
 - Mapping Scientist GIS/GIL
 - Photogrammetric Technologist
 - Remote Sensing Technologist
 - GIS/LIS Technologist
 - GIS Certification Institute
 - Highway Operation Technicians
 - Logistics
 - Planning
 - Professional Transportation Planner
 - Project Management: Design Build Construction
 - Purchasing and Procurement
 - Sign Technicians

Average Actual Salary Comparisons of West Virginia and Contiguous Border States

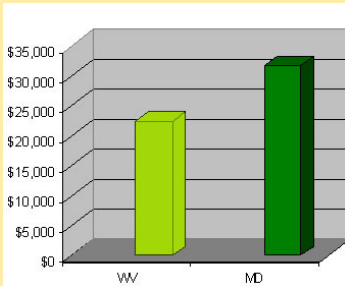
State Highway Engineer



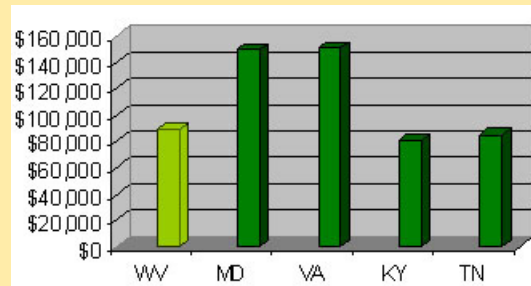
Environmental Analyst



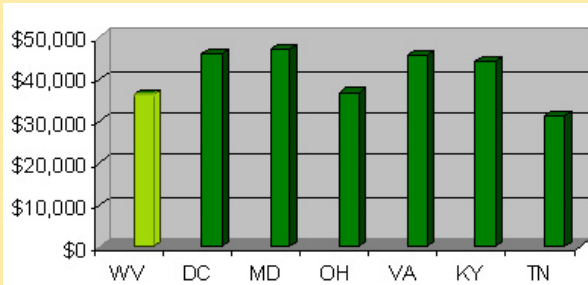
Customer Service



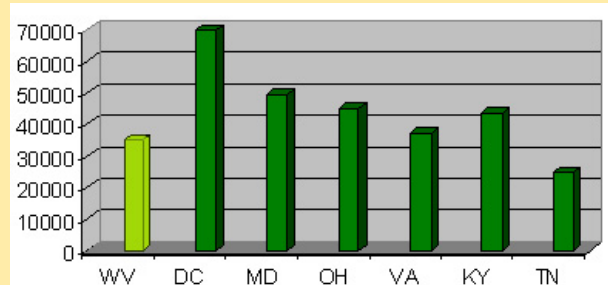
Engineer in Training



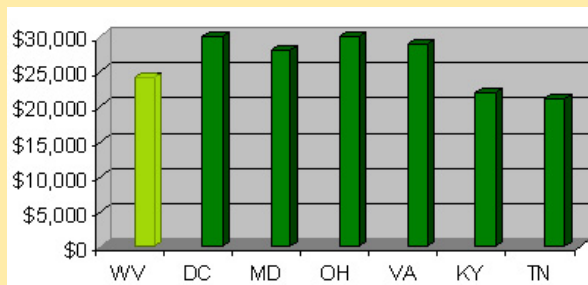
Transportation Crew Supervisor



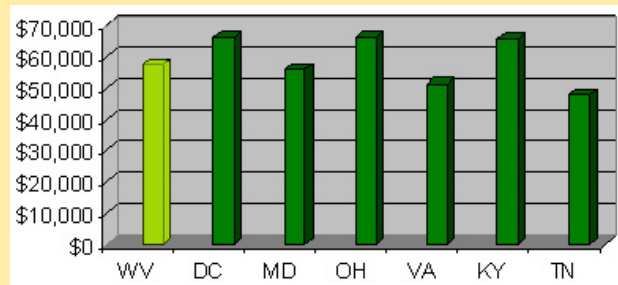
Transportation Technician



Highway Maintenance



Project Engineer



- Traffic Management
- Transportation Professional Certification Board
 - Traffic Operations Practitioner Specialist
 - Traffic Signal Operations Specialists

- Transportation Real Estate Appraiser
- Urban Forestry

13. Mission critical occupations according to all states interviewed included:

- Accountant/Auditors
- ASE Mechanics
- Diesel Mechanics
- Engineers
- Information Technology
- Planners
- Surveyors

14. From 2001-2006, there were 1,811 postings for Transportation Workers. The turnover is higher in border counties. At this point in time, there are 250 vacancies with 498 names on the register for this classification. Statistically, that presents only two potential candidates for each opening. A review of contact results from 21 certifications from the register for Transportation Worker 2 in the last 8 months shows that the agency

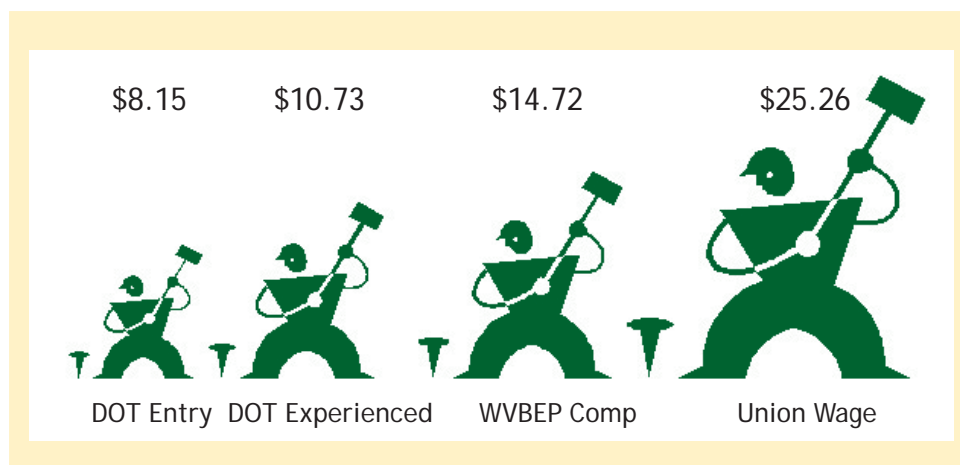
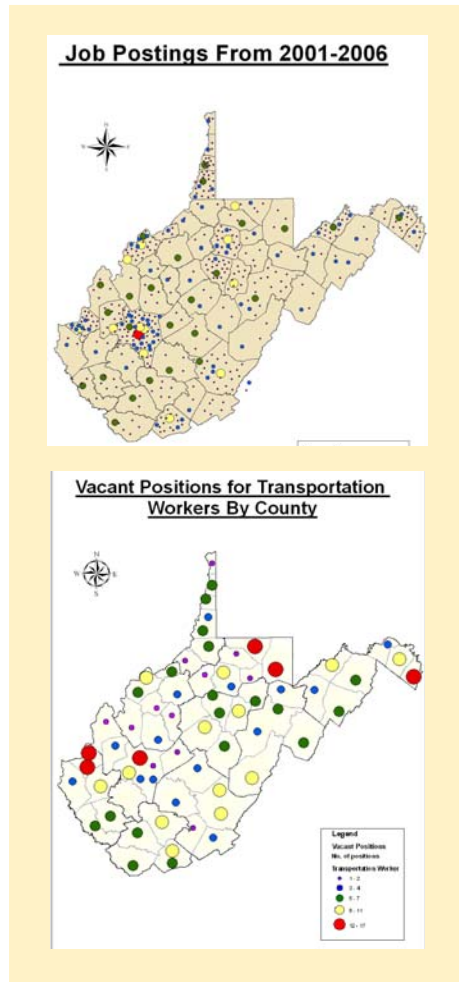
contacted 95% of the eligible certified, and that just 30% of those contacted agreed to interview for the positions. Overwhelmingly, applicants who were contacted indicated low

pay as the reason for their non-interest. When this response rate is applied to the number of employees on the register (498), the realistic applicant pool for more than 250 job vacancies is about 75.

15. The cost of unfilled job openings or high turnover is more than just lack of services. The cost can be calculated by factoring in such costs as: recruiting (advertising, posting, interviewing, reference checks, etc), processing, overtime to cover for the position, orientation and on the job training. An accepted rule of thumb for human resource professionals is to factor a minimum of 1.5 of the annual salary. The cost of the 250 transportation job vacancies is \$6,357,000.

16. If the positions are not filled, the state will have to contract out its maintenance work due to an inability to recruit workers; WVDOT would be required by law to pay the prevailing union wage rate, which is currently \$25.26/hr. for a Class 3 equipment operator (WV Division of Labor).

17. The group of workers who are eligible to retire beyond 2011, particularly those under the age of 45, are the least satisfied with their job and indicate they are most likely to search for a job outside of WVDOT within the next year.



Recommendations

1. Audit the databases for accuracy and increase the inventory of skill documentation.
2. Conduct an economic impact study to raise mission critical classifications to 90% of market value.
3. Raise salaries to 90% of market value, beginning with Transportation Worker Series.
4. Calculate the costs of outsourced engineering projects and determine the feasibility of keeping the work inhouse and by increasing WVDOT staff with competitive salaries.
5. Analyze historic overtime payments to determine the impact overtime has had on the base/actual annual salaries for engineers and determine the saving potential if overtime was eliminated.
6. West Virginia should begin succession planning immediately to address transition of the knowledge and history to new project managers. This goes beyond backfilling vacancies, but includes planning for the skill sets needed in the future. Use the Contingency Operation Plan as a basis for determining initial skills that are mission critical.
7. Calculate the “Rule of 80” impact on the WVDOT budget during the next 10 years. Develop transitional or bridge positions, contracts for businesses, to allow for step down retirements, to recoup some benefit of the benefit liability payment.
8. West Virginia’s budget should provide the WVDOT a lump sum (example \$10 million) as a pilot to buy back sick leave from the 471 people who will become “Rule of 80” retirement eligible during the next 5 years. The payback would be at a percentage less than the current and/or anticipated value.
9. Participate in a web-enabled focus group consisting of policy and legislative representatives, potential retirees in West Virginia and invited DOT personnel who represent states featured in the Unique Practices discussions. RTI will host the session, which will allow the group to participate from their local offices or work stations.
10. Restructure tuition reimbursement policies to permit reimbursement of education related not to the employee’s current position, but to skills identified by WVDOT as “critical.” Building and growing the workforce with current employees is the first and most loyal applicant pool.
11. The skill of the worker is not the skill level required for the job. Underemployed workers within WVDOT and other state agencies are the largest, proven applicant pool. Grow your own.
12. Request a response from the Career and Technical Schools and Community and Technical Colleges as to how they could offer unified, standard curricula for technical skills, including but not limited to: apprenticeship models, career pathways, development and implementation of new programs.
13. Participate in a focus group with Unique Practice states to discuss the feasibility of implementing programs most applicable to West Virginia.
14. Determine reasonable and appropriate credentials for classifications and provide advisory oversight to WVDE Career and Technical Centers and Community and Technical Colleges.
15. Utilize Workforce Investment Act (WIA) funds to provide Individual Training Accounts (ITA) for current workforce who would qualify for tuition assistance because training would qualify them for job upgrades, including both wages and responsibility.
16. Identify, through succession planning, the critical skills necessary for future workers. Utilize HB 3009 Funds to underwrite the development and implementation of new skill programs.
17. Establish dual tracks for promotion to enable technical workers to pursue advancement within technical specialities as well as management.
18. Prioritize and formalize K-12 commitments and engage in long-range planning with WVDE.
19. Offer student loan payoff benefits for new hires.
20. Formulate policies and procedures to develop recruit, select, monitor and eventually place internal employees into new classifications (“Grow Your Own”).
21. Create recruiter positions. The job description should include, but not be limited to:
 - Liaison to Career and Technical Centers and Community and Technical Colleges to establish training programs to create applicant pools.
 - Prioritize and formalize K-12 commitments and engage in long-range planning with the WVDE.
 - Establish a relationship with military branches of services to recruit a technical workforce, with an emphasis on military retirees with West Virginia connections.
 - Develop an engineering “icon” to acquaint the public with the connections engineering and other DOT professionals have in their everyday life.
 - Recruit new hires.
23. Establish Permanent Part-Time Positions with partial benefits and designed with “family friendly” hours.
24. Establish formal career paths with

outside agencies utilizing Workforce Investment Act Dollars. Utilize WIA funds to provide Individual Training Accounts (ITA) for current workforce members that would qualify for tuition assistance. Training would qualify them for job upgrades, including both increased wages and additional responsibility.

25. Initiate vocal and persistent input to local WIA boards to target occupa-

tions which are critical to the department and push for targeted workforce training.

26. Budget and implement summer orientation positions for high school juniors through college sophomores. Make selection competitive and based on aptitude and future interest. Include categories such as skill technicians, IT, finance, etc. Rotation would expose to as many divisions as possible.