

March 13, 2019 Testimony before the House Transportation Infrastructure Subcommittee on Highways and Transit

Submitted by John Kevin (Jack) Clark, Executive Director, Transportation Learning Center

Good morning. My name is Jack Clark. I serve as Executive Director of the Transportation Learning Center (the Center), a not for profit organization with offices in Silver Spring Maryland that does national work in transportation with a particular emphasis on the public transportation sector. The Center focuses its efforts on the challenge of improving training for frontline workers in public transit, the drivers, mechanics, technicians, cleaners and helpers who comprise 90 percent of the transit workforce. Members of our Board of Directors include leaders in management and labor and some major advocates. Amalgamated Transit Union International President Larry Hanley serves as Chair of our Board. American Public Transportation Association President Paul Skoutelas and Community Transportation Association Executive Director Scott Bogren also serve on the Board.

The Center practices labor-management partnership in its daily work. None of us involved in this work is naïve. Labor and management do have and will continue to have major differences and conflicting interests, particularly on zero-sum issues such as how resources are distributed between hourly wages and other priorities an agency might have. Those conflicts are not going away; nor should they. Unions represent a very large share of public transit workers, and workers through their unions can, do and should pursue collective bargaining to advance their interests. Likewise, managers can, do and should use the process to assert their rights and interests.

While recognizing the inevitable areas of conflict, the Center has benefitted from an insight that former US Secretary of Labor Ray Marshall offered to its Board more than a decade ago. Dr. Marshall noted that in the broad picture of interactions between labor and management, conflict, particularly zero-sum conflict, comprises a small fraction of how the two sides can interact. In areas like safety for the riding public and for the workforce, labor and management should have common interests. Similarly, workers and managers share an interest in improving the overall quality of the riders' experience in transit; both want a strong and reliable system that serves the public well and can count on needed public support for ongoing and expanded funding.

Dr. Marshall knows that even in those areas of shared interest, sharp conflict can and does arise. He was positing, and the Center's Board has generally accepted the concept that common interests do exist between labor and management. Building on those common interests can result in better outcomes for all.

The Center bases its work on just such a common interest: training for the frontline workforce. A more skilled workforce clearly benefits managers. More skilled workers can get the job done faster and better. *Improved* training offers transit workers opportunities for upward mobility in their careers. Cleaners or helpers, for example, can become skilled mechanics. Training can also enhance skills, knowledge and abilities of highly experienced transit workers who need to learn how advancing technologies affect how they do their jobs. When really excellent training, developed and executed on a partnership basis, is implemented, the performance of the whole organization improves and the workplace moves to a new culture that values life-long learning.

That ideal picture does occur occasionally. If that dynamic were the rule rather than the exception in public transit, the work of the Transportation Learning Center might not be needed.

Sadly, adequate training for the frontline workforce remains rare in transit.

One might posit that training does not occur because there is not a great need. To the contrary, transit is suffering through a skills crisis that will only become worse.

Start by looking at just a simple and easily understood metric: the age of the workforce.

For the economy as a whole, everyone comments on the problem of our aging workforce. Retirements of the baby boom generation no longer loom as a future issue to be confronted. It is happening now across the economy. Finding both the sheer number of workers required and filling the gap left by retirement of skilled workers concerns all employers.

Consider, though, that for all occupations and industries in the US, the median age of workers is 42 years of age. In transportation and warehousing, the median age is over 44. The median age in bus service and urban transit is nearly 51.

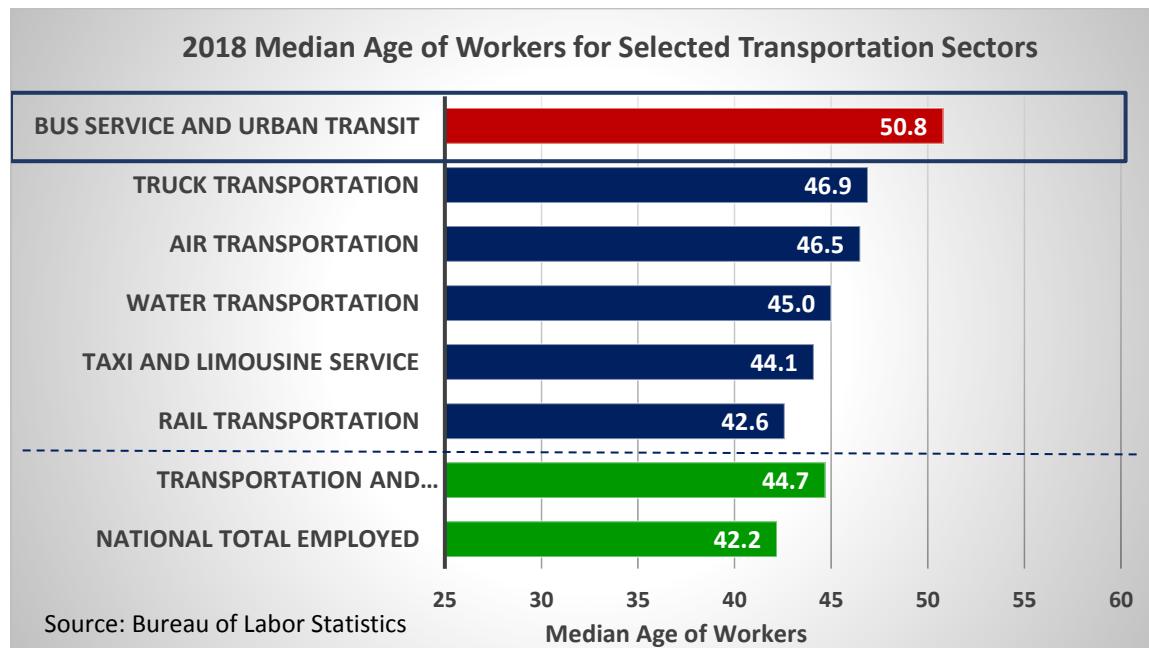


Figure 1 - Median Age of Workers for Selected Transportation Sectors

We see that the aging workforce issue, widely understood as a crisis for the overall economy, stands as an even larger challenge for transit.

Looking at only the age distribution understates the workforce challenge for transit. About 400,000 people work in public transportation now. Of that figure, 90 percent currently work in the frontline occupations I referenced earlier. Because of retirements and other exits from transit employment, transit has a very large number of jobs to fill. In 2015, the Center helped research a major study for the US Department of Transportation, the US Department of Labor and the US Department of Education on the future of the transportation workforce. Based on data through 2014, the best estimate at that time was that transit needed to hire, train and retain approximately 126 percent of its current workforce over

a ten-year period. No one has done the research to update those estimates, and we are halfway through the ten years. The Center works closely with a large number of transit locations. We know from daily experience in work with those locations that hiring and training a sufficient number of people provides a continuing challenge.

Most of my testimony will address issues around technical training for skilled maintenance work, but I want to take a moment to address the issue of exits from transit employment other than retirements. In general, transit maintenance workers, particularly skilled maintenance staff, tend to stay in their jobs for a long time. For bus drivers, the picture is more complex.

Hiring and retaining bus drivers poses a major challenge for the industry. Wages certainly are part of the problem. As the "Fight for \$15" movement makes further gains, driving a bus at a starting wage of \$15 per hour looks less attractive. Operator assaults, widely publicized in the areas where they happen, certainly discourage potential applicants from applying in the first place. I wish to state my strong support for HR 1139, legislation sponsored by Representative Napolitano and supported by transit labor. This legislation does not mandate any particular remedy for the problem of assault beyond identifying whether there is a need to address the problem, and if there is, bringing together workers and managers to develop a plan. HR 1139 also requires that data be collected and analyzed on a national level so that policy makers know what the scope of the problem is. Good data can drive good policy. Lack of data leads to bad guesses.

I will return to the issue of operator training and retention in the context of national work the Center is doing on apprenticeship.

As Members of Congress know, in a number of areas, transit service is expanding. That adds to the workforce challenge. In every transit agency, large and small, new technologies are changing the way work needs to be done. I share an amusing but revealing story from a conversation several years ago with a General Manager at a medium-sized agency. He was completing a procurement for a major bus purchase. In the final negotiations to close the deal, the bus vendor asked how many laptop computers the agency wanted to include. Delighted by this question, the General Manager thought he was getting some kind of bonus for his office staff until he realized that the laptops were a required tool for bus mechanics.

Those laptop computers provide the basic diagnostic tool for bus maintenance. Complex electrical, electronic and multiplexing systems have been commonplace on transit buses for well more than a decade. Buses have hybrid systems that require training on high voltage electricity. Fully electric buses provide a growing proportion of bus purchases.

For railcars, signaling, wayside and power equipment, even higher levels of skill are required to maintain systems properly.

In some locations, training to deal with these advanced technologies occurs regularly and is done well. Sadly, once again, that is the exception, not the rule.

A reasonable measure of the commitment to training by any employer is the percentage of payroll devoted to training. The Federal Highway Administration seeks a minimum of 3 percent of payroll devoted to training for projects it funds. High performance US firms often spend 4-5 percent of payroll on training. In a direct transit comparison, the Paris Metro spends a bit more than 8 percent of payroll.

A careful analysis in a study overseen by the Transit Cooperative Research Program shows that the average US transit agency spends between 0.66 and 0.88 percent of payroll on training.

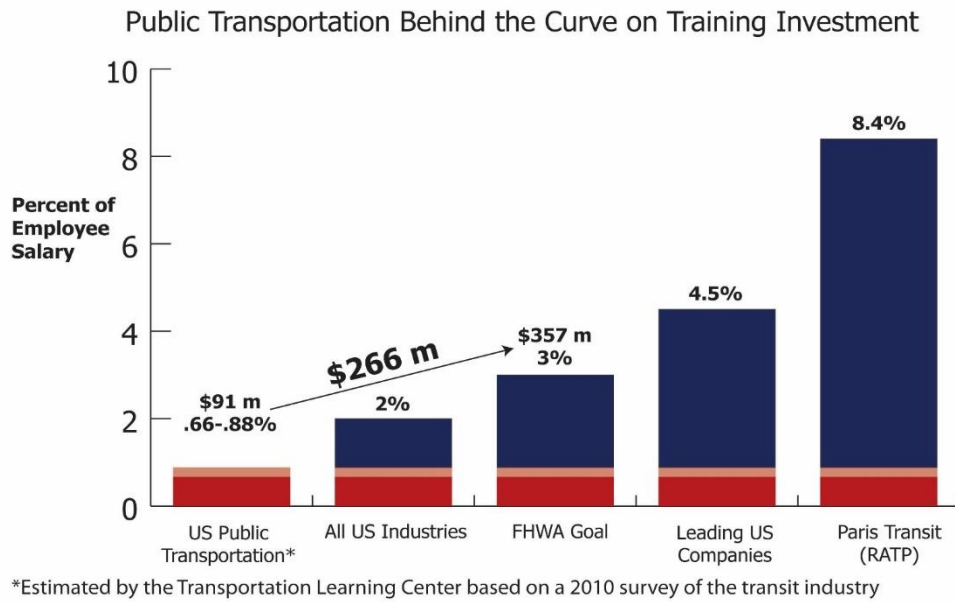


Figure 2 - Public Transportation Training Investment

Look at federal funding for transit. Nearly all the money goes to physical capital while scant resources are devoted to the building the skills of people who will maintain that infrastructure.

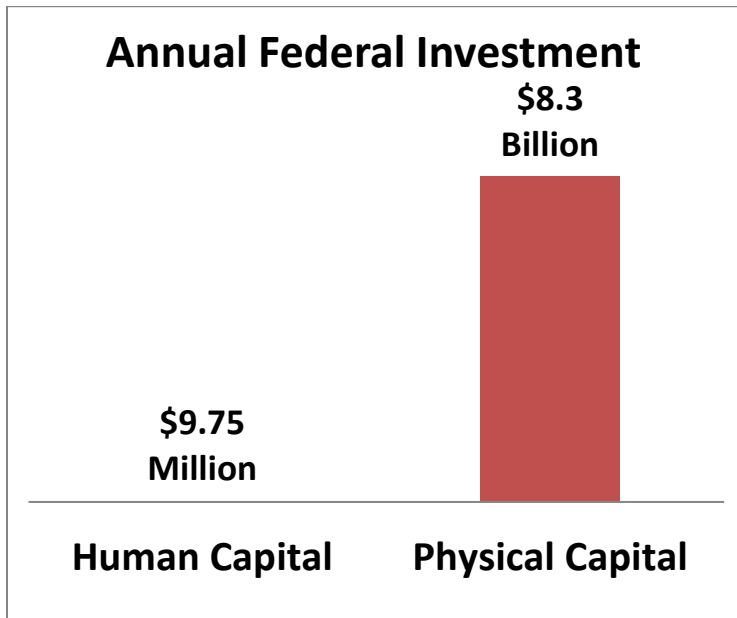


Figure 3 - Annual Federal Investment in Transit

Note: Physical Capital Investment is based on the 2016 federal capital funds from the 2018 APTA Fact Book. Human Capital Investment includes annualized funding for the 2015 FTA Innovative Workforce Development programs (\$9.5 million over two years) and \$5 million a year for the National Transit Institute in the FAST Act.

Before closing out this testimony, I will review this discrepancy between physical and human capital and recommend action in the reauthorization of the FAST Act.

Having cited multiple problems and shortcomings in transit training, I will highlight an approach that already shows great promise and can deliver sustainable results for training transit workers: registered apprenticeship.

Quite simply, apprenticeship combines classroom instruction with on-the-job learning. Most workers learn most of their skills in practical application. For the highly technical aspects of maintenance, learning basic and advanced principles of electricity, for example, cannot be optional. Applying that learning under the guidance of more experienced workers reinforces and strengthens the apprentice's comprehension of the principles.

The Center, under a grant from the US Department of Labor, is working to develop individual apprenticeship programs in a number of transit agencies. More broadly, the Center endeavors to make registered, joint labor-management apprenticeship programs the new norm for how the transit industry addresses the workforce and skills crisis.

In the rest of the advanced industrial world, apprenticeship has established itself as the norm for training. Germany, which enjoys a substantial trade surplus in manufactured goods, relies heavily on apprenticeship to fill the ranks of its highly skilled workforce. In the US, apprenticeship has enjoyed bipartisan support from successive Administrations and from both parties in Congress.

Specific to this subcommittee's jurisdiction, on the highway construction side, we are not seeing the dire skills shortages spelled out here for the transit workforce. Construction unions have more than a century of experience with joint apprenticeship programs, and those programs work well to address ongoing and future needs. Like all sectors of the economy, construction does face issues with an aging workforce as well as a need to diversify the pool of candidates qualifying for journey level jobs. There, too, the building trades joint apprenticeship programs are demonstrating the capacity to respond to the challenge. The Multi-Craft Core Curriculum (MC3), developed by the building trades apprenticeship directors, serves as a model for effective pre-apprenticeship training.

Apprenticeship for skilled maintenance work in transit clearly makes sense. Well-structured apprenticeship with good mentoring and possibly with some pre-apprenticeship options can also help transit address some glaring problems in its workforce profile. Simply put, the skilled maintenance workforce in transit remains overwhelmingly male and nearly as overwhelmingly white. Transit cannot adequately address its workforce shortages unless it reaches out to the entire workforce. More inclusive outreach and training for the well-paid jobs the transit industry offers is a moral imperative; it is also a practical necessity.

Percentage of Women in the Workforce

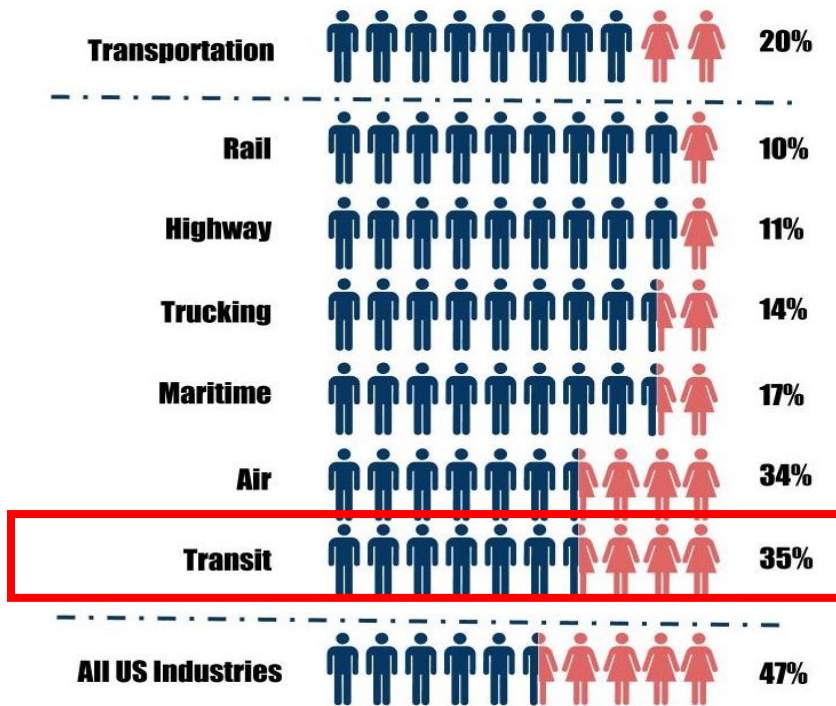


Figure 4 - Percentage of Women in the Workforce

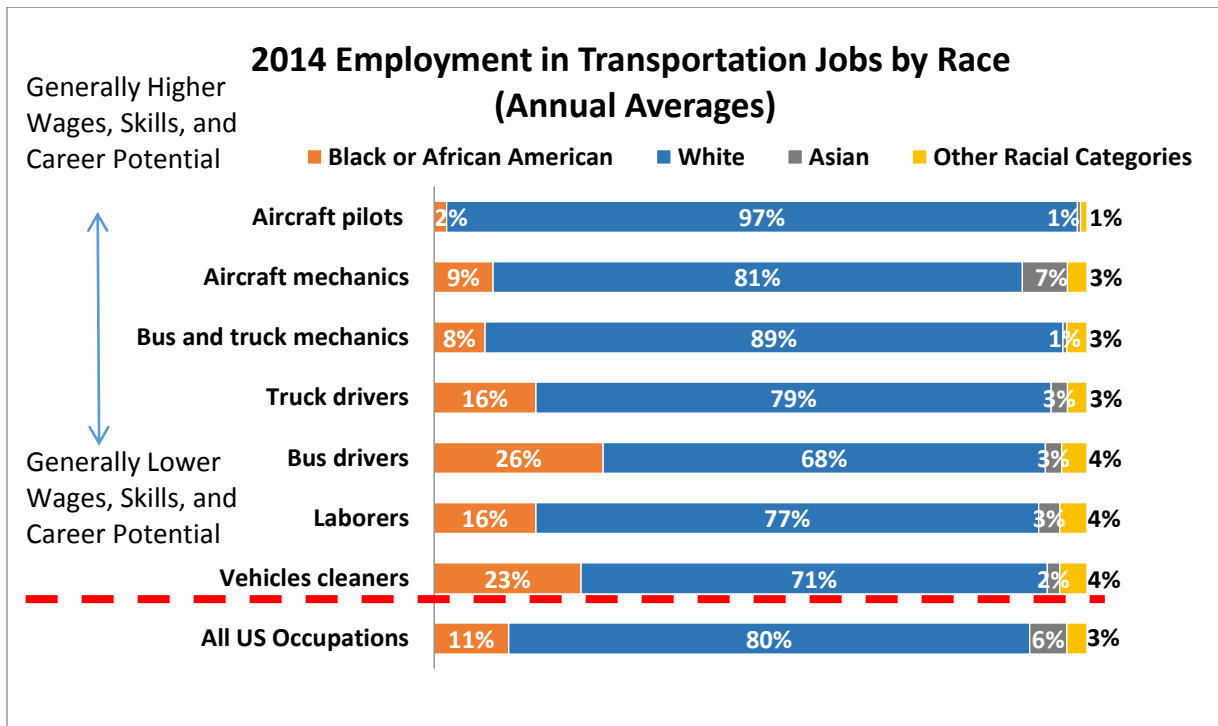


Figure 5 - Employment in Transportation Jobs by Race

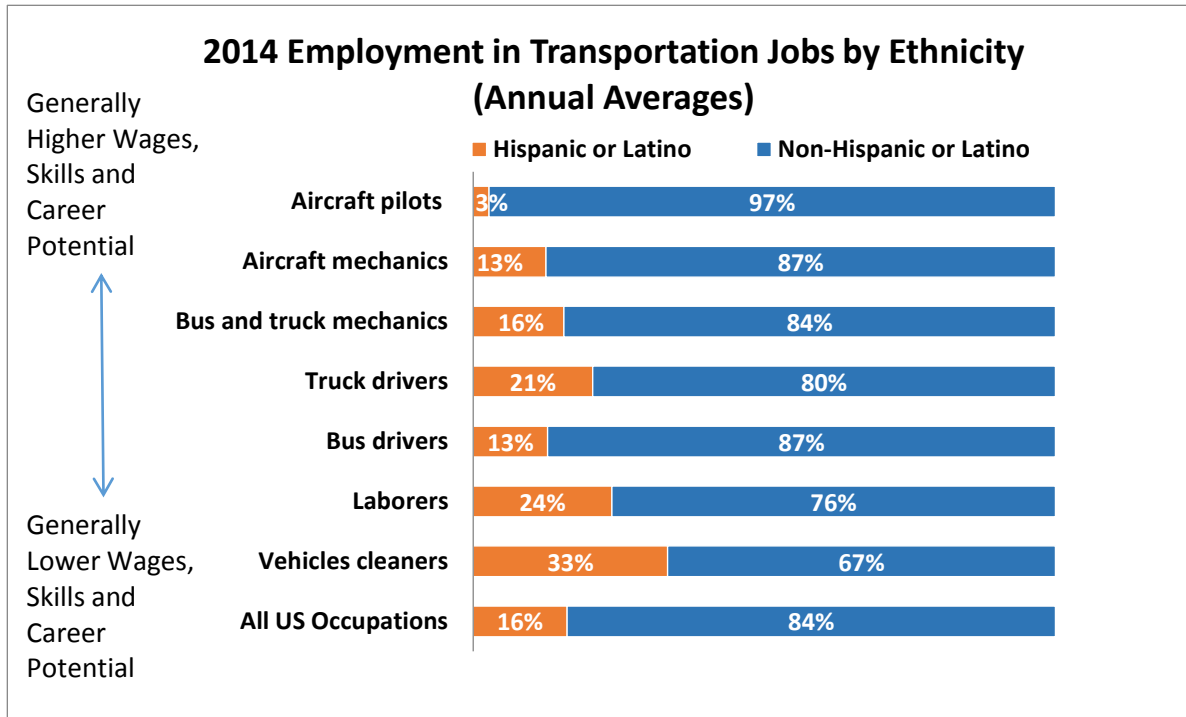


Figure 6 - Employment in Transportation Jobs by Ethnicity

Source (Figure 4-6): Data Report on Transportation Workforce Needs by the U.S. Departments of Education, Transportation and Labor.

Having identified apprenticeship as a promising approach, we return to the hard reality that training never rises to a priority level for transit. Bus maintenance is by far the largest maintenance craft. On the bus maintenance side, the Center has identified several small to midsize agencies that have a sincere interest in establishing an apprenticeship program but are severely handicapped because they do not have the time or resources to implement such a program. These agencies typically do not have a training department or have limited training staff barely able to keep pace with refresher and new technology training. Providing classroom instruction to apprentices, which constitutes about one-third of the program, becomes extremely difficult with such limited resources. Making matters worse is that nearly all agencies, large, medium and small, are lacking technicians, putting increased pressure on them to make buses road ready for revenue service. This pervasive condition makes it extremely difficult to spare senior technicians as mentors needed to provide apprentices with on the job training, which makes up the remaining and essential apprenticeship activity.

The Center also works on developing apprenticeship for bus drivers (or as some locations call them, transit coach operators). That may seem counter-intuitive. After all, bus operators do not need to learn advanced electronics or similar technical material. Earlier in the testimony, I referred to high turnover among bus drivers. As noted, operator assaults play a role there. So does the ordinary and grinding routine of driving a bus. New hires work the least desirable shifts in the worst neighborhoods. Training focuses on earning the Commercial Driver's License and on how to handle a large vehicle in traffic. The larger challenge for people aspiring to be bus drivers is how to deal with the public. Turnover among new hires can be very high. One large city gave me an estimate that 50 percent of new hires were still

driving a bus a year after completing training. Another city, which has paid a lot of attention to operator training, has about 60 percent retention over that one-year period. These are not sustainable numbers.

Operator apprenticeship started at Valley Transit Authority (VTA) in San Jose, California. The Amalgamated Transit Union (ATU) Local 265 initiated the program, and its members played a large role in making it work. Mentors, selected by the union and approved by management, volunteer to work with new drivers. They offer their insights and experience, sometimes riding with the new driver, often by phone, a few times every year in a conference setting. By chance, VTA launched its pilot apprenticeship program at the same time as it ran a traditional class. Union and management agreed that the new program required additional resources so that only one cohort would benefit. Eighteen months later, VTA looked at the two cohorts. VTA does a lot better than most on retention as a general rule. More than 70 percent of driver trainees who started in the traditional class were still driving a bus for VTA. For the cohort that went through the full mentoring and apprenticeship, nearly 100 percent were driving a bus eighteen months later.

VTA also saw a rise in customer satisfaction, a drop in absenteeism and improved safety. Those are results we want to replicate across the transit industry. VTA and ATU Local 265 created a Joint Workforce Initiative (JWI) to oversee apprenticeship and training across all occupations. Once again, San Jose provides a model that should be replicated.

By definition, apprenticeship takes place at the local level. Sharing across locations can help people learn and improve what they are doing. The Center has taken that cross-location learning a major step further. Bringing together subject matter experts from both labor and management and from different locations, the Center has developed Consortium work for delivery of instructor-ready courseware for rail car technicians, signals maintainers and transit elevator-escalator mechanics. Agencies, even large agencies, often lack the capacity to develop new and up-to-date courses on their own. Consortium material enhances the training department's ability to deliver courses.

To recap, we have seen some data on the skills crisis facing public transit. Neither the transit agencies nor the federal government is addressing the need for training adequately.

What, if any relevance, does all of this have for reauthorization.

I would advance several recommendations:

1. Make human capital count by counting human capital. The FAST Act could require more attention to human capital. Dr. Beverly Scott, an experienced General Manager at several agencies and a major industry leader on workforce issues, proposes that the National Transit Database be required to include basic workforce measures. She proposed this as part of rule making process on Transit Asset Management arguing that human capital needs to be assessed as much as physical capital. She notes that GAO as early as 2001 cited lack of a strategic approach to workforce as a major problem across all public sector entities. If agencies are required to report on human capital and know that it is a responsibility funders take seriously, then human capital will become a higher management priority. Elements of human capital she proposed to include in the National Transit Data Base:
 - a. Total Labor Cost (payroll, contingent and contract worker pay, benefits excluding consultants); % of Operating Expense;

- b. Workforce Profile - # Total Employees (Full-Time/Part-Time), Major Job Classifications, "Key Positions" (industry-wide by mode), Average Age, Tenure, EEO Profile and Underutilization Target Groups – annual progress;
 - c. Total # Annual Vacancies/3-Year Average ("new" positions; attrition/turnover rates (including promotions)); by "Key positions";
 - d. 5-Year Hire and Retirement Projections (Retirement "Eligibility" and "Likelihood" based on historical agency experience);
 - e. Average Time to Fill Positions -- "Key Positions", by Major Job Classification;
 - f. Annual Absenteeism Data by Major Job Classification/Total and Agency Cost;
 - g. Total Training, Apprenticeship & Employee Development Investment; % of Budget;
 - h. Mandatory Employee Training/Completion Rates;
 - i. Annual Safety Training/Certification Completion Rates;
 - j. Employee/Passenger Injury Data (Human Factors primary; contributing factor);
 - k. Prepare a HR Risk Registry (5-Year Planning Horizon), which identifies major workforce challenges (current, emerging, and future) and plans to address.
2. Authorize funding (the Secretary shall, not the Secretary may) for a national resource center for frontline workforce training at a level equal to current funding for the National Transit Institute. Naturally, I propose that the Transportation Learning Center play that role. So long as the national workforce center must reflect both labor and management interests, must address diversity of the incoming technical workforce, must focus on apprenticeship, then the Center can compete for the designation. Win or lose, we will know that the issues that need to be addressed are addressed.
3. Require that USDOT coordinate workforce efforts with other federal entities, particularly the US Department of Labor's National Office of Apprenticeship and the Office of Career, Technical, and Adult Education at the US Department of Education. In numerous instances, particularly at the state level, transit is excluded from federal training funds because funds are reserved for private sector employers. As documented here, transit under-invests in training, largely because transit is underfunded. The jobs in transit offer career ladders and family-sustaining wages. DOT should advocate with other federal funders to maximize the opportunity for transit agencies to benefit from workforce funds.
4. This subcommittee and its members will help shape any federal infrastructure package that may go well beyond the scope of the FAST Act and will almost certainly include funding for upgrading transit infrastructure. I am not addressing in this testimony how infrastructure will be financed, but I do want to emphasize that while infrastructure spending can and will create jobs, there needs to be corresponding increases in workforce funding to prepare people for those jobs.

Thank you.