

# **Increasing the Recruitment and Retention of Women in the Transportation Industry**

Rachel A. Mulholland, MA  
Keaton Zucker, MSW  
Allison Bondanza, PhD  
Briana Hedman, PhD  
Jill Pinarowicz, PhD  
Patrick Sherry, PhD

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## Abstract

This report summarizes two projects that were study was based on the notion that an in-depth exploration of

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## List of Tables

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## Project #1

The Bureau of Labor Statistics reports that as of 2009, women comprised 46.8 % of the total United States labor force. The female workforce is projected to account for 46.9 % of the total labor force in 2018 and is expected to contribute the majority 51.2 % of the increase in total labor growth between 2008 and 2018 (United States Department of Labor Women's Bureau, 2009). However, there are sectors of labor in which gender inequality is still prevalent. For example, women comprise only 24.5 % of the transportation industry. As of 2008, only 10.4 % of all civil engineers in the United States were women. In transportation and modal occupations, which includes a range of positions from baggers and stock handlers to bus drivers and pilots, the percentage of full-time employed female transportation workers totaled only 13 % in 2009 (Bureau of Labor, 2007). In the present year of 2016, men still greatly disproportionately hold the jobs within the transportation industry.

Within the next 15 to 20 years, the transportation industry is projected to face a staffing shortage at all levels of the industry due to an aging workforce and failure to recruit new employees at the rate of projected retirement (Sussman, 1999). Most administrators agree that there is a necessity to attract and develop highly qualified professionals in order to address these needs. Based on demographic surveys it is clear that women are underrepresented in the transportation industry and are potentially an untapped resource for future labor. For unknown reasons, women are reluctant to start or maintain a career in the transportation industry. This study was based on the notion that an in-depth exploration of their experience might enlighten industry professionals about what approaches are best for recruiting and retaining women in the transportation industry.

During a review of the current literature, only one research study was found that attempted to explore the gender inequality of women in the transportation industry. Hanson and Murakami (2010) recognized the gender discrepancy in the U.S. transportation sector. They realized that the gender inequality statistics within the transportation industry were of interest for two reasons: (1) gender inequality may be best explained in terms of lack of equal opportunity for men and women within the industry and (2) women may not be attracted to the industry due to

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Follow-up to initial broad questions included:

- What factors influenced your entry into the transportation industry?
- Has mentorship been important in your career development?
- What are your current career goals?
- What barriers do you perceive to achieving goals?

Role model salience: The Influence of Role Models Scale (IRMS, Basow & Howe, 1980);

Influence of others: The Influence of Others on Academic and Career Decisions Scale (IOACDS, Nauta & Kokaly, 2001).

Perceived barriers: Career Barriers Inventory (CBI-R, Swanson et al., 1996).

Career self-efficacy: Occupational Self Efficacy Scale (OSES, Betz & Hackett, 1981).

Relational: Relational interdependent self nonstructural scale (RISC, Cross, 2000)

Additional open-ended questions on the survey included:

- What were 3 major events that helped or hindered your career?
- What are the major barriers to achieving your career goals?
- What factors keep you in your current position and make you want to stay working in this job?

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## Results

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- You have to become more of a man than they are, but you have to know when to turn it on and off.
  - This is the boys club. I'm not held to the same standards.
  - It's really a man's world. It doesn't matter how much you know. That's how I feel. You don't have to have negative experiences to see it.
  - Don't come in and say, "I don't have somebody to watch the baby." This isn't the place for that.
  - You have to be assertive. You have to have self-confidence and know what you're talking about.
  - In the outside world there is a stigma that it's a man's world not glamorous at all.
  - People stay here forever - because the benefits are better than anywhere else.
  - There's not a real desire to put women in higher management positions.
  - I came here for a summer job and I never left.
  - The work rules are what they were a hundred years ago with nights , weekends and holidays. The fact of the matter is not too many people are willing to do them.
  - Once I was able to be part of the bigger picture that was very satisfying.
  - Had I not gotten into the apprenticeship program then I probably would have left.
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(24) = .552,  $p < .05$ ) and promotion (promotion = (24) = .440,  $p < .05$ ) they also reported significantly higher levels of job satisfaction. In addition, high satisfaction with their overall career was most significantly correlated with the presence of a mentor (mentor presence = (24) = .587,  $p < .01$ ). Finally, in terms of retention, the results clearly indicated that a high degree of belongingness (belongingness = (24) = .811,  $p < .01$ ) was highly correlated with a desire to stay on in the same organization. Thus, from an overall perspective, retention is related to the quality and strength of the relationships in the workplace.

Women who had an informal mentor (male or female) felt that they had been helped to be successful in their job by supporting them and telling them about promotions. Mentorship played an additional supportive role in encouraging younger females to apply for promotions as well as training programs that would lead to career advancement. Some women reported, “Had I not gotten into the apprenticeship program then I probably would have left”; “Once I was able to be part of the bigger picture that was very satisfying”. Perceived barriers to recruiting women into the organization may consist of women not wanting to do manual labor jobs, long hours and unpredictable work schedules, and that the industry is still seen as a “man’s world.” Insight into this perception of a “man’s world” was made evident through several significant comments of female participants: “You have to become more of a man than they are, but you have to know when to turn it on and off”; “This is the boys club, I’m not held to the same standards”; “Don’t come in and say, ‘I don’t have somebody to watch the baby’. This isn’t the place for that”. Conversely, study participants reported the benefits of being in the transportation industry as good pay and benefits, the respect that is earned by knowin

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## Project #2

Intro

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**Job satisfaction** . Job satisfaction was measured by asking participants general questions about their satisfaction with their current job (e.g. to what degree do you feel very satisfied with this job). These items were responded to on a 5 point scale ranging from 1 (to a little or no degree) to 5 (to a very great degree).

**Intention to Pursue/Accept/Quit** . Respondents'

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<b>Likely to Accept</b>	<b>Likely to Pursue</b>
43.5% say “to a little or no degree”	76.1% say “to a little or no degree”

Figure 1. Percent likely to pursue and or accept a position in transportation.

The results indicate that, for women not currently employed in a transportation job, there is a low likelihood of them accepting (7.6%) or pursuing (8.7%) a job in transportation. However, i

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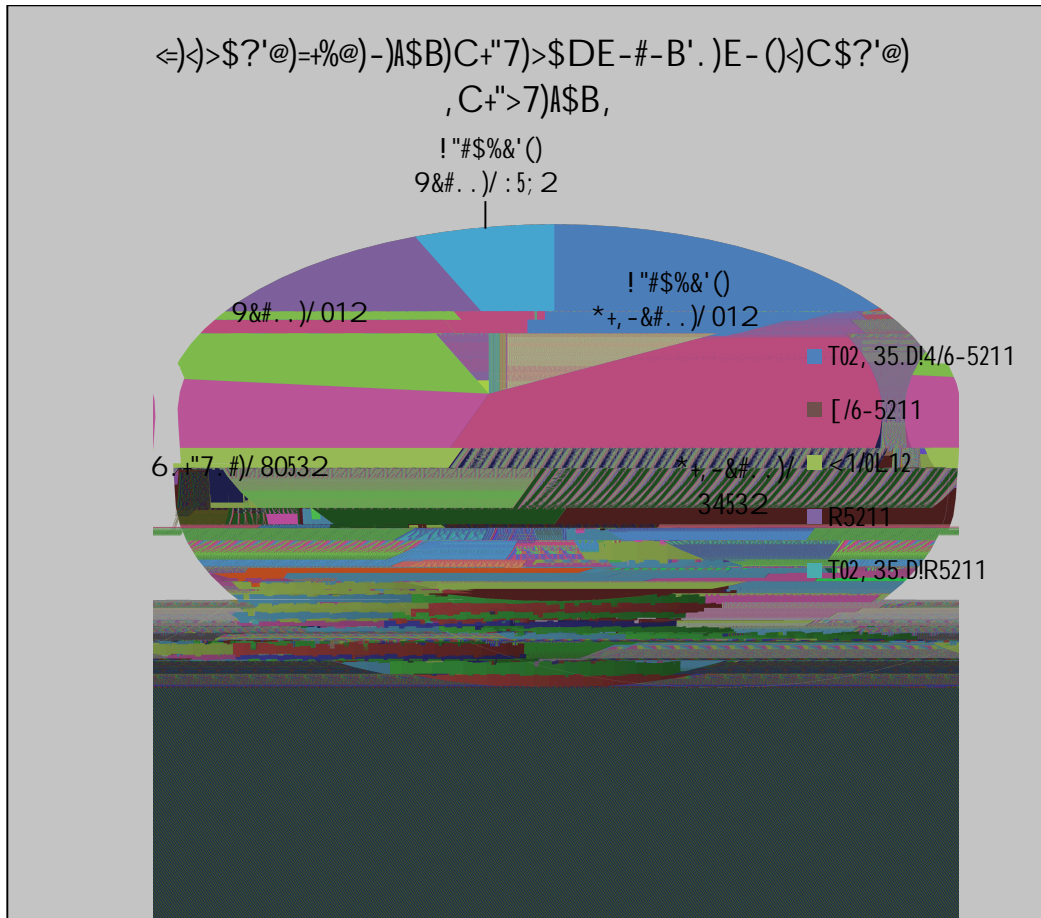


Figure 2. Intention to quit

It is also interesting to note that those in transportation jobs were very unlikely to leave their jobs if a job with comparable pay were available. As can be seen in the figure, 38.3% disagreed and 17% strongly disagreed with this proposition. This suggests that overall the group was satisfied with their jobs and thus provide a good comparison and benchmark for the non-transportation group.

Comparing the persons who are interested in pursuing a job in transportation to those who are not provides additional insight into career choice and acceptance. For example, as can be seen in Figure 3, women interested in pursuing a career in transportation tended to be more interested in practical and realistic job activities and less interested in artistic activities than those who have little interest.

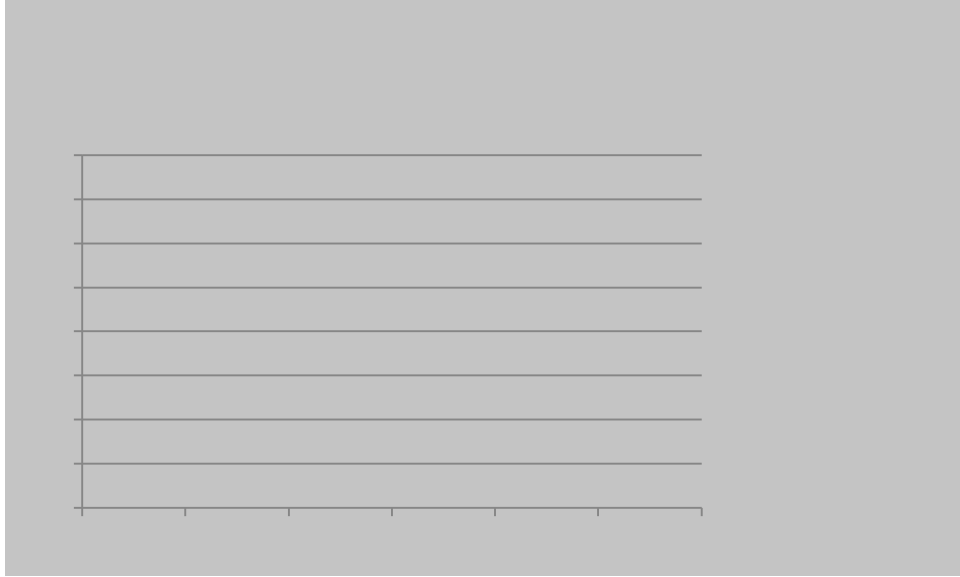


Figure 3. Differences between women who would vs would not pursue transportation.

In addition, examining the results for those who are satisfied with their jobs in the transportation industry in comparison to those who are less satisfied, we can see that there is a similar split. Persons who are highly satisfied with their jobs in transportation score high on the realistic and practical job interests and comparatively low on the artistic interests.

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Figure 4. Vocational interests of satisfied versus dissatisfied transportation incumbents.

If we plot the profile of interests of those who are interested in pursuing a career in transportation against those who are highly satisfied an interesting result emerges (see Figures 4 and 5). Namely, that the profiles of the highly satisfied persons are almost identical to the

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The other interesting finding of this project is the fact that persons who are interested in pursuing jobs in transportation are much more comfortable with being in a predominantly male workforce. The figure below reveals that respondents had a much more favorable view of taking a job and working with the opposite gender. More importantly it appears as if their level of self-efficacy is very high and that they believe that they would be competent to work in the field and be able to make a significant contribution. Thus, the issue of a predominantly male workforce comes in to play relative to a woman's sense of self efficacy and confidence regarding competing and contributing in a predominantly male workforce. Thus, these data suggest that self-efficacy and confidence are key components of a successful woman working in transportation.

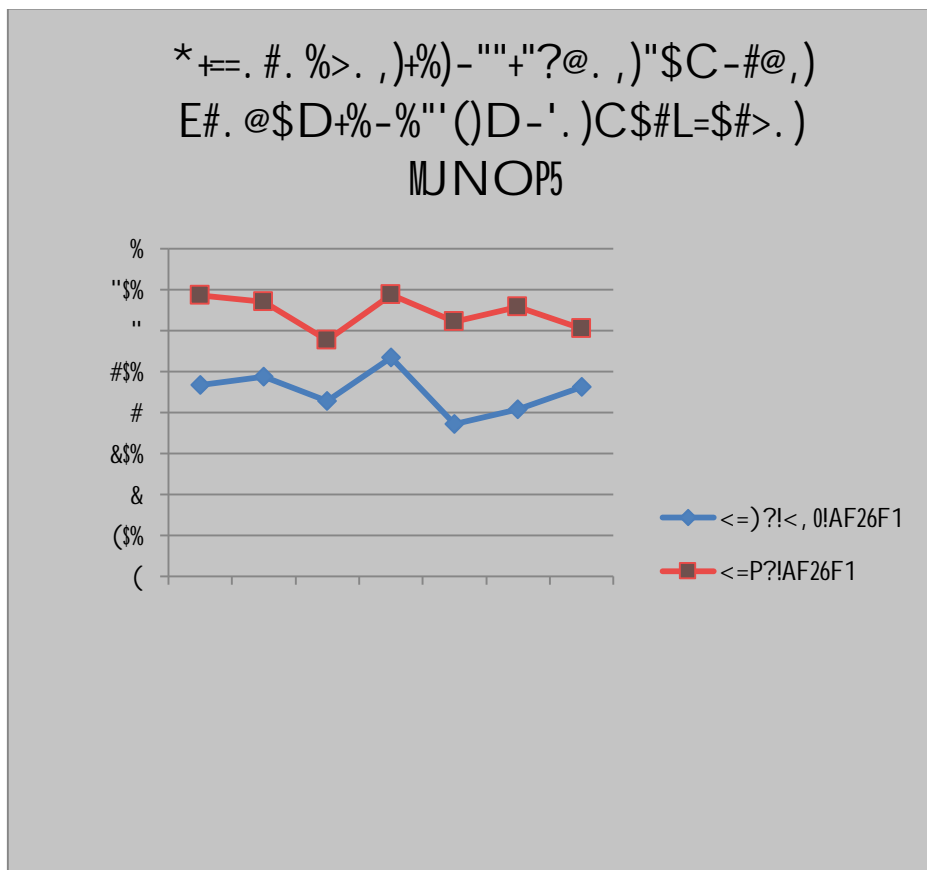


Figure 7. Attitudes towards jobs in predominantly male workforce.

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Women interested in pursuing a job in transportation in a predominantly male workforce were significantly higher on all of the key attitudinal differences. Namely, they were confident that they had the skill and reported being comfortable with the fact that the workforce was predominantly male. Again, these results are validated by the fact that this pattern is similar to the responses of those female job incumbents who were highly satisfied with their jobs in transportation.



Figure 8. Attitudes differences towards PMW.

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stay. Those intending to leave responded negatively to, “Very satisfied with this job” and “Like you fit with the organization you currently work.” ( $t(1,66)=4.32, p<.001$ ).

### **Regression Analyses**

The regression analysis of pursuit of a career in transportation supported the previous analyses and indicated

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The regression analysis of accepting a career in transportation onto the independent variables also supported the previous analyses and indicates that interests, values and an awareness of the issues confronting women in a predominantly male workforce are factors that influence a decision to accept a position in transportation. The model below was statistically significant and accounted for 77.2% of the variance ( $R^2$ )

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Results of regression analysis of intention to quit onto the independent variables provides considerable insight also into the factors that would influence whether a woman would decide to leave her job. Results of the analysis produced a statistically significant equation that accounted for approximately 42% ( $R^2=.427$ ,  $F(3,41)= 10.18$ ,  $p<.001$ ) of the variance in respondents reporting an intent to leaving their job. The factors in this equation were somewhat different from those of the previous models that indicated women likely to leave their jobs were likely interested in a higher level recognizable job title. In addition, they were less likely to indicate that their personal values were being met and that they were very satisfied with their jobs.

Table 4. Stepwise regression analysis of likelihood of quitting job in transportation.

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Those who have a low degree of int

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## **Recommendations**

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Hanson, S. and Murakami, E. (2010) Women in transportation: improving the current gender imbalance will require strategies on a number of fronts, from education to industry organizations and the workplace, *P* , Vol

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