

# **Women in the Transportation Professional Services Industry**

Prepared for the Bay Area Chapter of the  
Women's Transportation Seminar

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## Executive Summary

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The transportation industry is a fast-growing employment sector in the United States. Within the transportation industry, a subset of workers constitutes the transportation professional services sector. Transportation professionals include a wide array of occupations, including planners, engineers, and architects. Although women make up almost half of the total workforce in the United States, they make up less than 13% of the total workforce in professions related to transportation professional services. In addition, women comprise only 17.4% of transportation managers (BLS, 2010). The predominance of men in transportation professional services is a public policy concern because it may indicate inequities in women's employment and professional opportunities. The shortage of women in the transportation professional services sector is also problematic because workforce diversity leads to increased profit and better business performance (Herring, 2009).

Although there are many different reasons for women's underrepresentation in the workplace, one of the predominant causes is that women are disproportionately responsible for caregiving duties in the family, which may cause them to reduce their employment hours. As a result, women may not be able to advance as quickly as men in the workplace and may become economically disadvantaged relative to men. In addition to this obstacle, women may face the additional barrier of being a minority in the workplace. Government intervention may be necessary to guarantee that women have equal opportunities to advance in the workplace.

In 2011, the Bay Area chapter of the Women's Transportation Seminar (WTS) commissioned a survey to examine women's underrepresentation in transportation professional services in the San Francisco Bay Area, particularly in senior management positions. Another aim of the survey was to gather gender and race-disaggregated employment data and to determine whether transportation organizations utilized strategies thought to increase workforce diversity. Attaining accurate disaggregated

employment data is an essential step to determining whether a) women face barriers in employment and career advancement and b) specific workplace policies have an impact on the employment retention and promotion of women in the transportation professional services industry.

WTS emailed the survey to 51 public and private transportation organizations with offices in the Bay Area. Only 9 organizations provided any Bay Area employment data, a response rate of 18%. The survey results were unusable because of the prevalence of methodological errors, particularly nonresponse and measurement errors. Since the survey did not yield conclusive results which are applicable to the transportation professional services industry, this paper recommends the following improvements, which can produce reliable and accurate data:

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- ➔ Reduce methodological errors
  - ➔ Improve the survey administration process
  - ➔ Create a new survey instrument
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Recommendations for reducing methodological errors:

- Reducing nonresponse errors:
  - Remove any references to a glass ceiling in order to project neutrality.
  - Prepare potential respondents for survey administration.
  - Eliminate the burdensome process of recording 353 pieces of separate data.
  - Focus the follow-up survey only on women's employment.
  - Simplify the survey to increase the response rate.
- Reducing measurement errors:
  - Reword survey questions to improve clarity and brevity, and to make certain results are comparable.
  - Avoid online survey instruments.
  - Indicate that employment data should be recorded in counts.
  - Eliminate belief-based questions to ensure the collection of only pertinent and critical information.

- Reducing coverage and sampling errors by appropriately targeting the survey population:
  - Ensure that respondents have an equal chance of being selected to participate in the survey.
  - Take steps to survey the entire population of the Bay Area transportation professional services industry.

This paper makes additional recommendations for improving the survey administration process and designs a survey template that can be used to obtain reliable data. The following recommendations relate to the survey administration process:

- Map out a six-week survey process.
- Conduct trainings for survey administrators.
- Standardize questions.
- Administer the survey to the equivalent of a Human Resources Director at every organization.
- Train survey administrators.
- Conduct the follow-up survey by telephone.
- Provide templates for survey administration.

The proposed instrument incorporates many of the preceding recommendations. In addition to those recommendations the follow-up survey will:

- Reduce the amount of open-ended questions.
- Emphasize data from 2010.
- Request total, senior, and entry-level and middle management employment data for women.
- Ask about the presence of specific employee development and family-friendly policies.

WTS can use the results to perform a number of different analyses. The new survey results will help WTS to determine the proportion of women within a particular organization. In addition, WTS can use the survey results to determine women's representation in varying management positions within and across organizations. WTS can also compare women's representation levels or policies in public and private organizations, as well as large and small organizations. Additionally, the new instrument can assist WTS in conducting a disproportionality analysis if WTS wants to compare women's representation levels within Bay Area transportation professional services organizations to the overall representation of women within that particular city. Lastly,

WTS can compare workplace policies and programs to women's representation levels within organizations, which may suggest a causal relationship between the two variables.