

Job Satisfaction Survey 2 Test Manual

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The job satisfaction of employees has been rigorously studied for a century, and it can be considered a universal indicator of employee job adjustment and well-being. There are tens of thousands of workplace studies that have linked it to a long list of workplace variables that are important to organizations, including customer service, job performance, and turnover. It arises from a combination of employee and workplace factors and can reflect the match between employee needs and the job. The assessment of job satisfaction can best be achieved with the use of a survey instrument that can be administered anonymously. The use of a quantitative scale can provide scores that allows for comparison and benchmarking both internally over time and externally.

The Job Satisfaction Survey (JSS) was originally developed in the 1970s for use in human service and mental health agencies (Spector, 1985). It has been used in hundreds of studies across countries and industries. The JSS assesses 9 facets of job satisfaction, and an overall score can be computed as the sum of facets. There are three major limitations to the scale that were remedied in the JSS-2.

1. The subscales of the JSS were designed for human and social services. Although the scale has been used in other industries, the operating procedures subscale items are not always relevant.
2. There are psychometric deficiencies with the original scale. Factor analyses of the 9 subscales yields 8 factors, as one subscale collapses into the Pay and Supervision scales. Some of the subscales have low internal consistency reliabilities (coefficient alphas).
3. Although the sum of facets is sometimes used as an overall score, it is a rough estimate for two reasons. No facet scale covers all aspects of the job that drives overall satisfaction, and the emphasis placed on different facets varies by person.

The JSS-2 is an improvement over the initial scale as it is designed for general use across industries and sectors, improves on the psychometric properties of the scale, and includes a separate overall satisfaction scale. Whereas the JSS can be used without monetary cost for educational and research purposes, the JSS-2 is only for commercial use.

Development of the JSS-2

The JSS-2 was developed from the original JSS. It retains 7 of the 9 facets; Contingent Rewards was eliminated because it collapsed into other subscales when factor analyzed, and Operating Conditions was eliminated because it did not apply to all jobs. The remaining JSS items was a starting point, and then items were added, deleted, and modified across three iterations of item generation, testing, and revision to achieve the final scale. The final scale consists of 32 items, and it retained 15 of the original items, although some were slightly reworded.

The final subscales reflect satisfaction with:

1. **Salary:** Amount of pay and pay policies.
2. **Promotion Opportunities:** Chances to be promoted.
3. **Supervision.** Focuses primarily on direct supervisor.

4. **Fringe Benefits.** Benefits provided other than salary.
5. **Coworkers.** The people with whom the person works.
6. **Tasks.** Enjoyment of the things done at work.
7. **Communication.** How well employees are kept informed.
8. **General Satisfaction.** The overall satisfaction with the job.

Internal Consistency and Factor Structure

The initial stages of scale development were performed on diverse samples of workers recruited from a university psychology subject pool. Three samples were used to finalize the items that would produce good internal consistency and a clean factor structure. From two of the samples that were administered the final item pool, a subsample of customer service employees was selected. The scale was then administered to 9 different samples that spanned industries and sectors in order to do further testing and to provide initial norms. In all the sample size across samples was 2166.

Table 1 describes each sample and provides the sample size.

Table 1: Summary of 10 Samples for the JSS-2 Development

Sample	Description	N
Agriculture Department	Government employees from one Department of Agriculture	223
Revenue Department	Government employees from one Department of Revenue	216
Transportation Department	Government employees from one Department of Transportation	166
Engineers	Broad sample of engineers licensed in Florida	244
LPNs	Broad sample of licensed practical nurses licensed in Florida	237
Paramedics	Broad sample of paramedics licensed in Florida	182
RNs	Broad sample of registered nurses licensed in Florida	290
Service	Customer service employees, both part-time and full-time including bartenders, servers, and salesclerks. There were no significant differences among subsamples of hospitality versus retail, so they were combined. There also was no significant differences between part-time and full-time.	187
Miscellaneous Professionals	Miscellaneous professionals recruited via social media (LinkedIn and Twitter). Included HR professionals, I-O psychologists and researchers.	56
Social Workers	Broad sample of social workers licensed in Florida	365

The transportation sample provides internal consistency (coefficient alphas) and an exploratory factor analysis for the scale. Table 2 shows descriptive statistics including the means, standard deviations and ranges, as well as coefficient alphas for the 8 subscales. All coefficient

alphas were above .90, which meets standards suggested for applied use of assessments by Nunnally and Bernstein (1994). Alphas for all 10 samples combined are in Table 4, and are all above .90 and very close to those in Table 2

Table 2: Descriptive Statistics for the JSS-2 from Transportation Sample

Subscale	Mean	SD	Range	Alpha
Salary	12.6	6.8	4-24	.98
Promotion	13.2	6.5	4-24	.95
Supervision	20.1	5.6	4-24	.98
Benefits	20.8	3.9	5-24	.93
Coworkers	20.4	4.0	4-24	.97
Tasks	20.3	3.8	6-24	.92
Communication	17.3	5.2	4-24	.92
General	19.5	4.8	4-24	.96

An initial exploratory factor analysis was conducted on the transportation sample to determine if a clean structure without large cross-loadings could be achieved. A common factor model with orthogonal (varimax) rotation was conducted. The 28 items for the 7 work aspects were included, but not the general score because the general score overlaps with the other scales, largely because it is in many ways a summary judgment based on a psychological combination of individual facets. As can be seen in Table 3, the structure is quite clean with loadings over .50, and most over .80 on the intended factor representing each facet, and small loadings mostly below .30 for the cross-loadings.

For a final check, a confirmatory factor analysis was conducted using LISREL 10 with the Engineer sample. In this case all 8 subscales were included in order to ascertain if 8 separate factors would produce a good fit. Only loadings for each subscale were estimated, with all cross-loadings fixed to zero. An oblique solution was fit to the data by allowing the factor inter-correlations to be estimated. The overall fit for the 8 factor model was good with $X^2(436) = 897.4$, $p < .0001$, CFI = .95, IFI = .95, RMSEA = .066. The 8 factor model was compared to a baseline single factor model, and was found to have significantly better fit according to a chi square difference test ($\Delta X^2(28) = 3647$, $p < .00001$).

Table 3: Factor Structure of the JSS-2 in the Transportation Sample

Item	Supervision	Salary	Coworkers	Benefits	Promotion	Work	Communication
1	.11	.87	.06	.22	.22	-.02	.13
2	.87	.12	.24	.01	.18	.19	.19
3	-.00	.19	.20	.76	.13	.09	.08
4	.22	.07	.84	.13	.09	.25	.14
5	.33	.19	.30	.08	.28	.22	.66
6	.16	.29	.11	.19	.76	.08	.25
7	.85	.07	.26	-.01	.19	.17	.18
8	.02	.22	.12	.80	.09	.12	.05
9	.27	.10	.86	.16	.07	.14	.18
10	.08	-.03	.27	.06	.14	.82	.08
11	.18	.28	.11	.14	.73	.16	.23
12	.06	.18	.12	.85	.11	.07	.16
13	.23	.06	.88	.13	.08	.19	.16
14	.20	.20	.15	.19	.31	.16	.76
15	.14	.06	.07	.15	.10	.76	.18
16	.90	.07	.23	.02	.14	.19	.16
17	.21	.30	.10	.14	.80	.17	.19
18	.29	.12	.25	.15	.17	.76	.12
19	.33	.19	.20	.14	.18	.30	.52
20	.07	.88	.10	.22	.28	.06	.14
21	.20	.34	.11	.17	.81	.15	.17
22	.89	.06	.19	.06	.15	.21	.20
23	.01	.17	.07	.89	.16	.08	.07
24	.21	.14	.82	.19	.15	.22	.10
25	.05	.89	.11	.23	.27	.03	.11
26	.23	-.01	.18	.03	.06	.81	.10
27	.31	.20	.23	.16	.31	.16	.69
28	.10	.87	.09	.23	.26	.08	.16

Norms

The norms for the JSS are provided by the 10 samples to which it was administered, which are shown in Figures 1-10. In these figures scores from 4-12 represent dissatisfaction and are color coded red, scores between 12 and 16 are considered ambivalent (neither satisfied nor dissatisfied) and are color coded orange, and scores over 16 are considered satisfied and are color coded green. The overall means and descriptive statistics are provided for all samples combined in Table 4, and the profile of means is shown in Figure 11. An analysis of variance was conducted to compare the 10 subscales on all 8 subscales, and in all cases there were significant differences among means overall, with at least some samples significantly different from others.

Table 4: Descriptive Statistics for All Samples

Subscale	Mean	SD	Range	Alpha
Salary	13.5	6.9	4-24	.98
Promotion	13.8	6.0	4-24	.93
Supervision	19.5	5.2	4-24	.96
Benefits	17.2	6.1	5-24	.96
Coworkers	20.0	4.1	4-24	.95
Tasks	19.5	4.3	6-24	.91
Communication	15.8	5.6	4-24	.91
General	18.3	5.1	4-24	.95

Figure 1: Profile of Job Satisfaction across Subscales

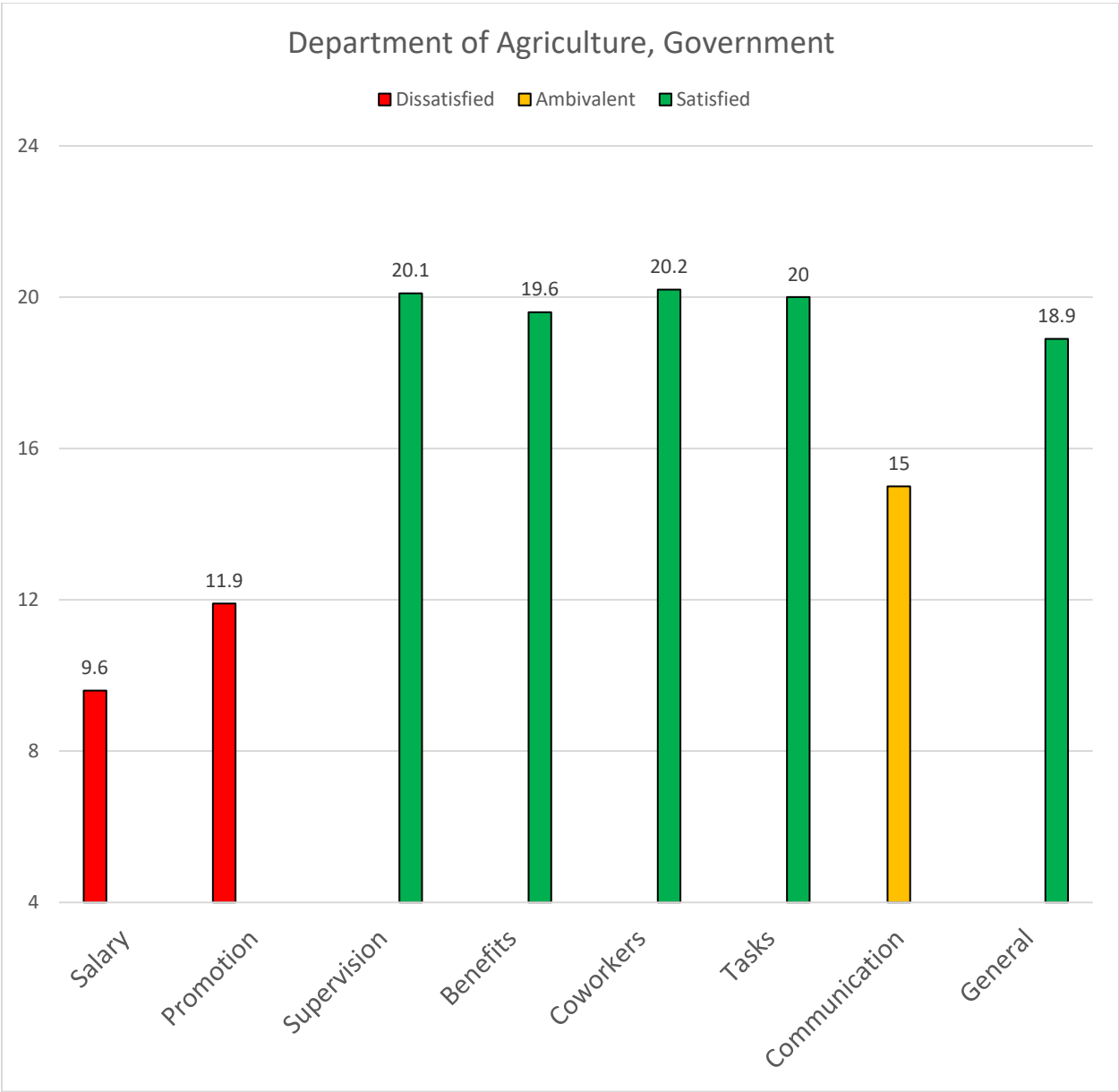


Figure 2: Profile of Job Satisfaction across Subscales

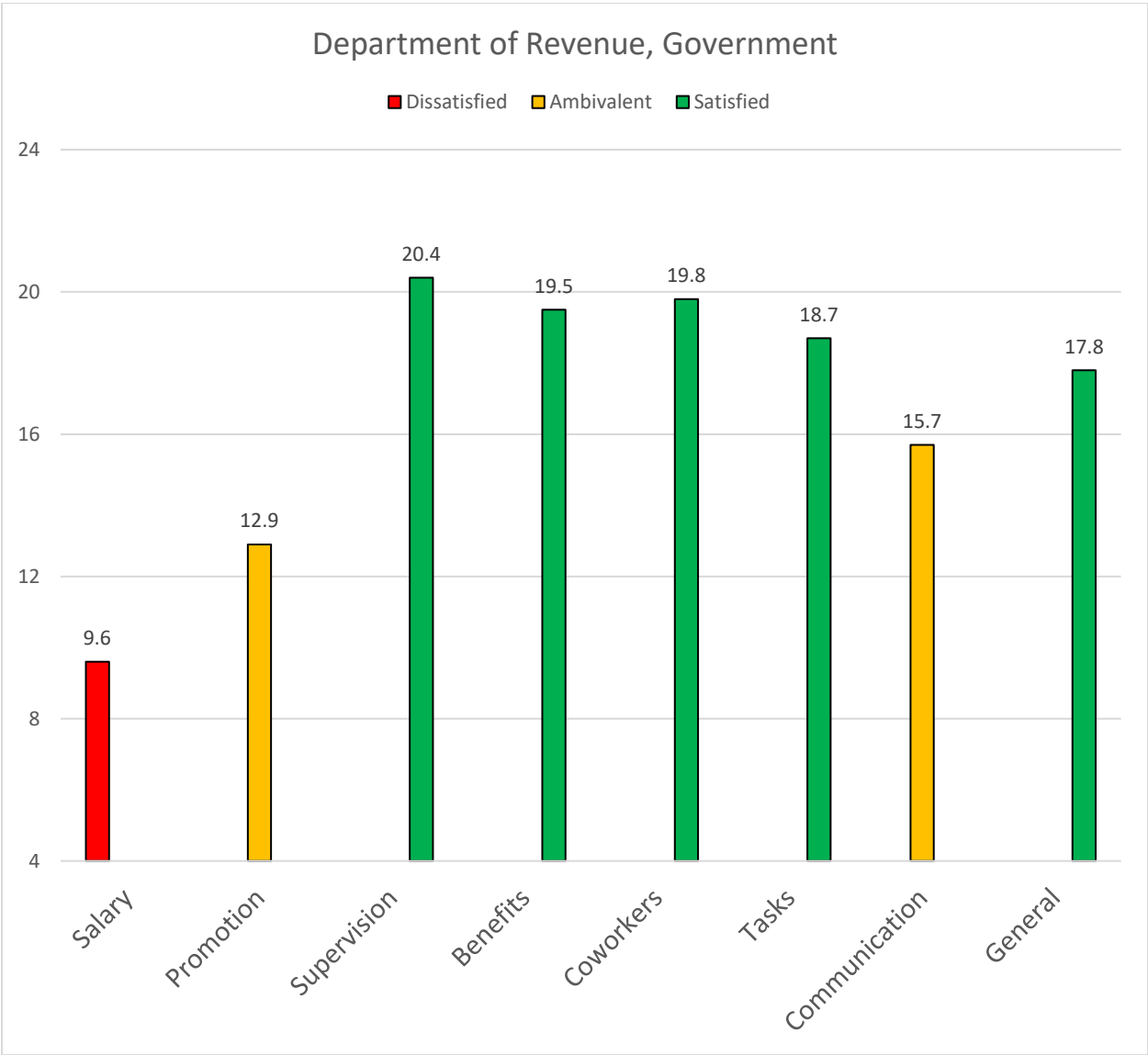


Figure 3: Profile of Job Satisfaction across Subscales

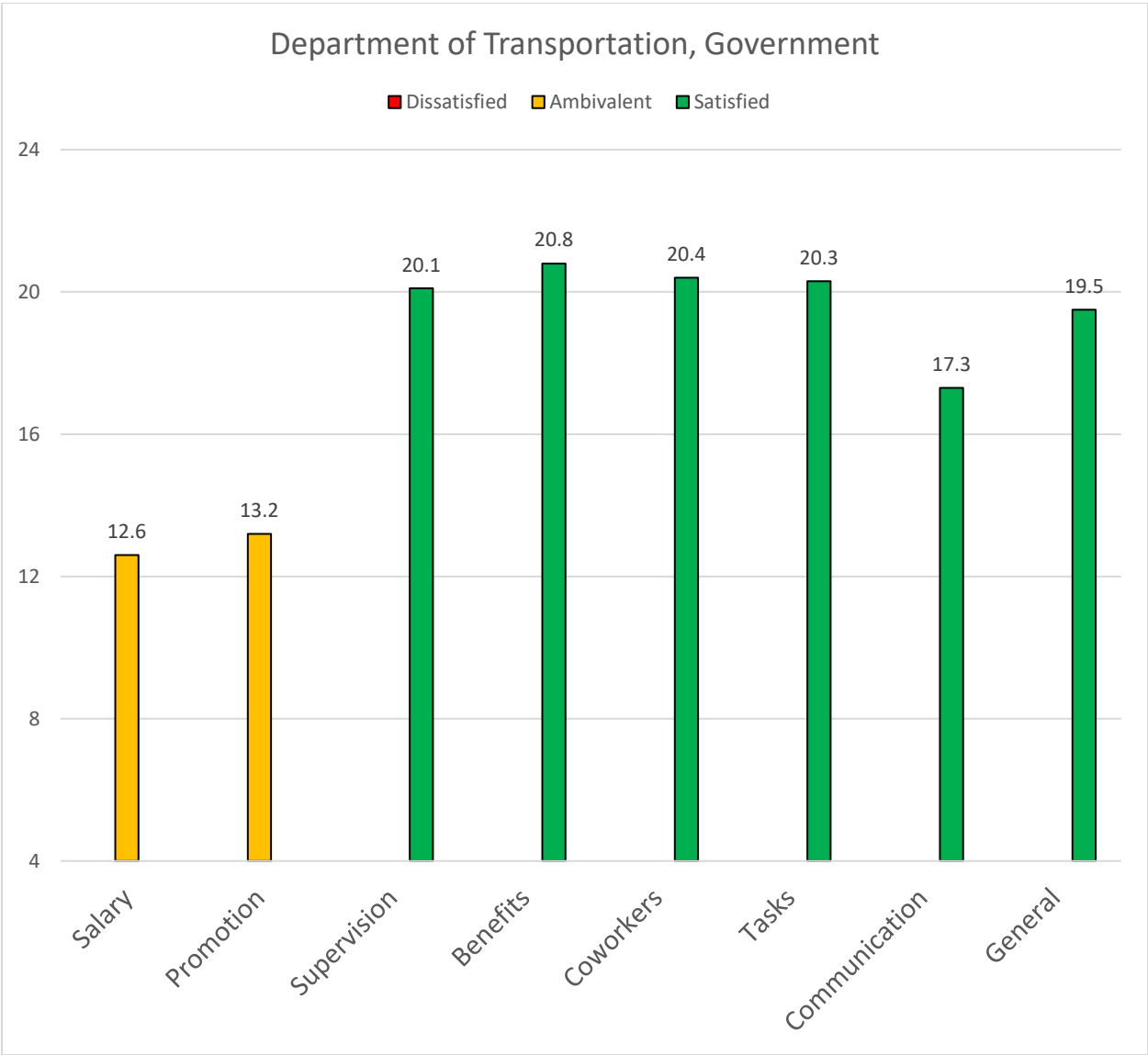


Figure 4: Profile of Job Satisfaction across Subscales

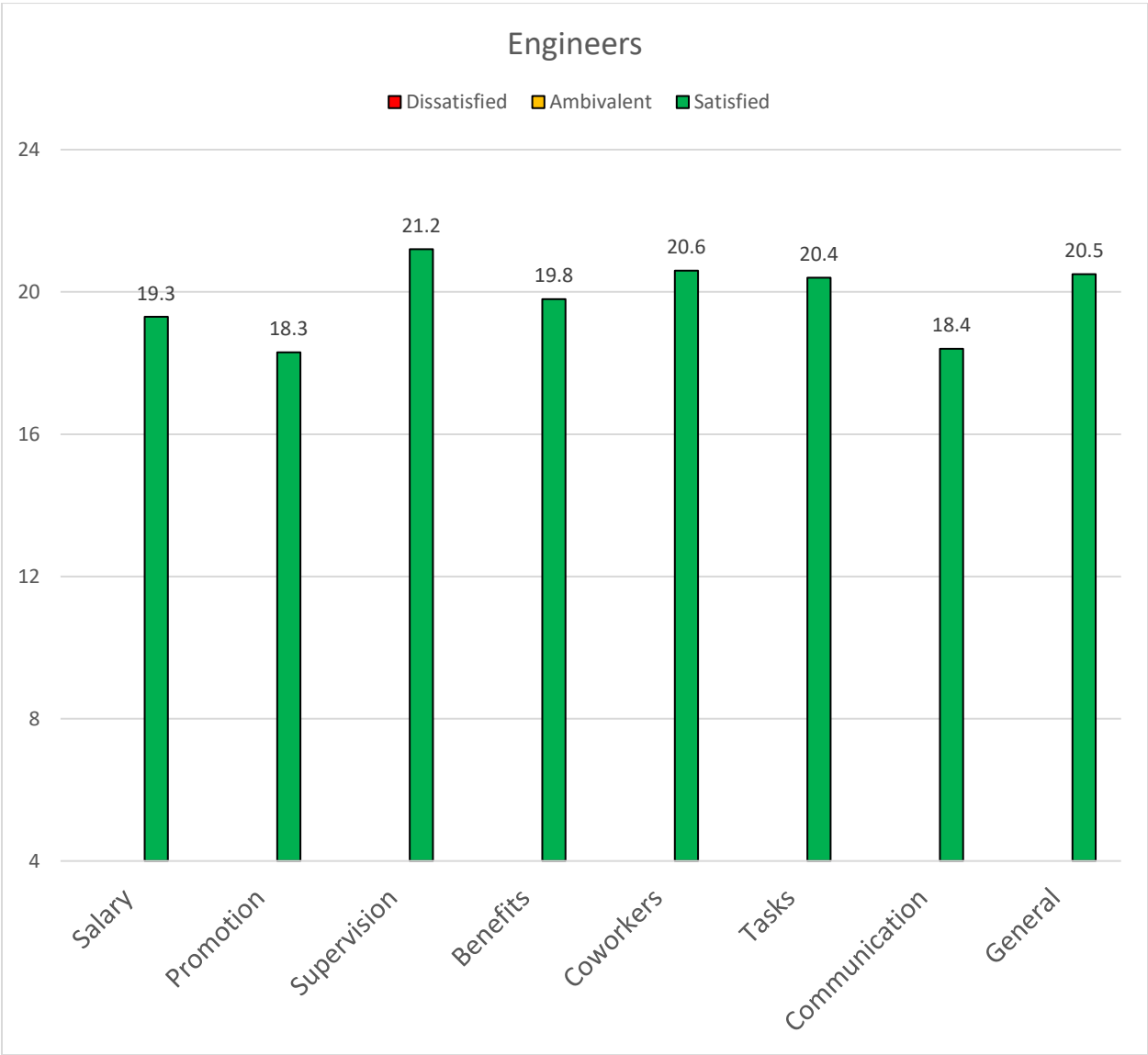


Figure 5: Profile of Job Satisfaction across Subscales

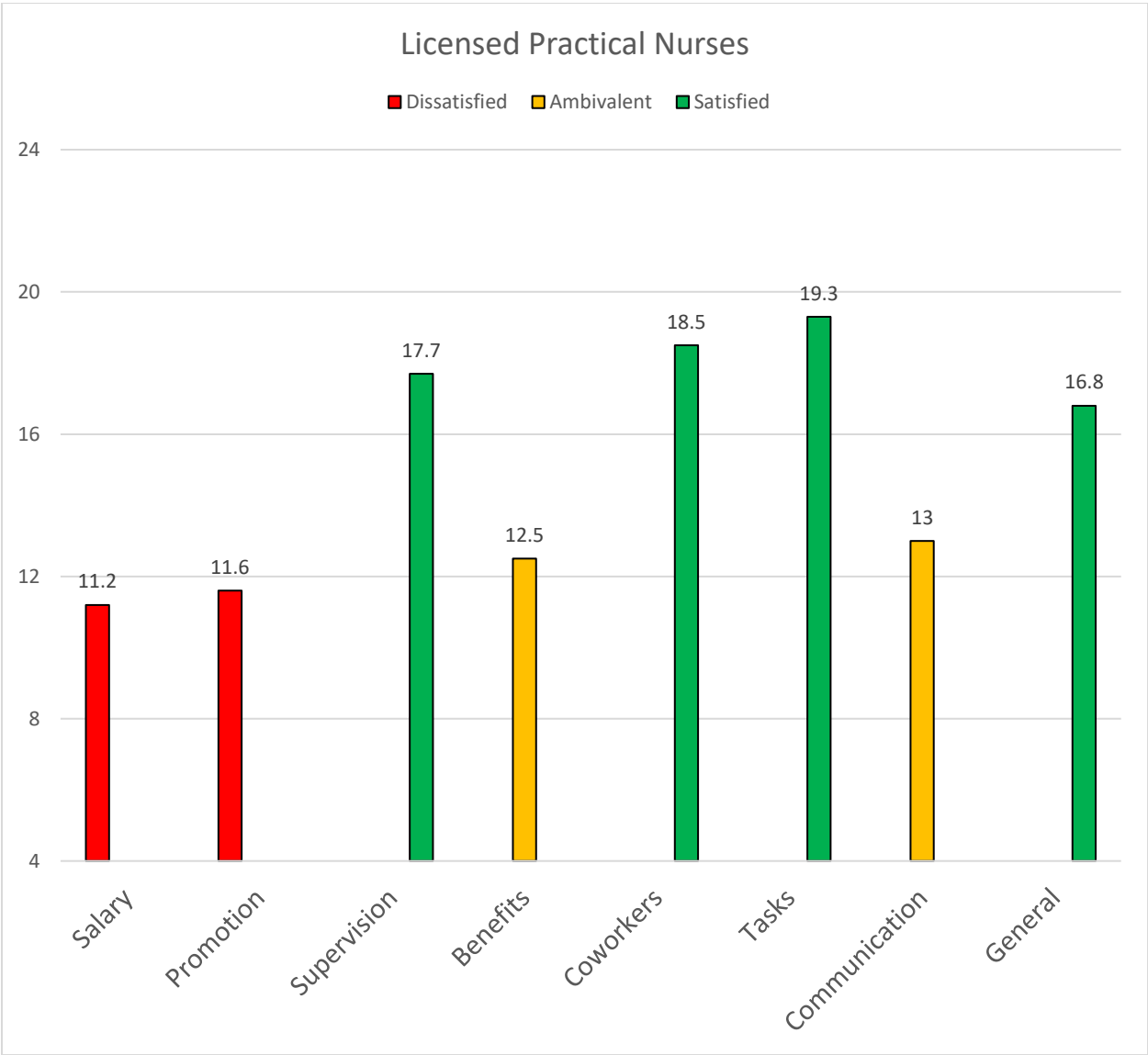


Figure 6: Profile of Job Satisfaction across Subscales

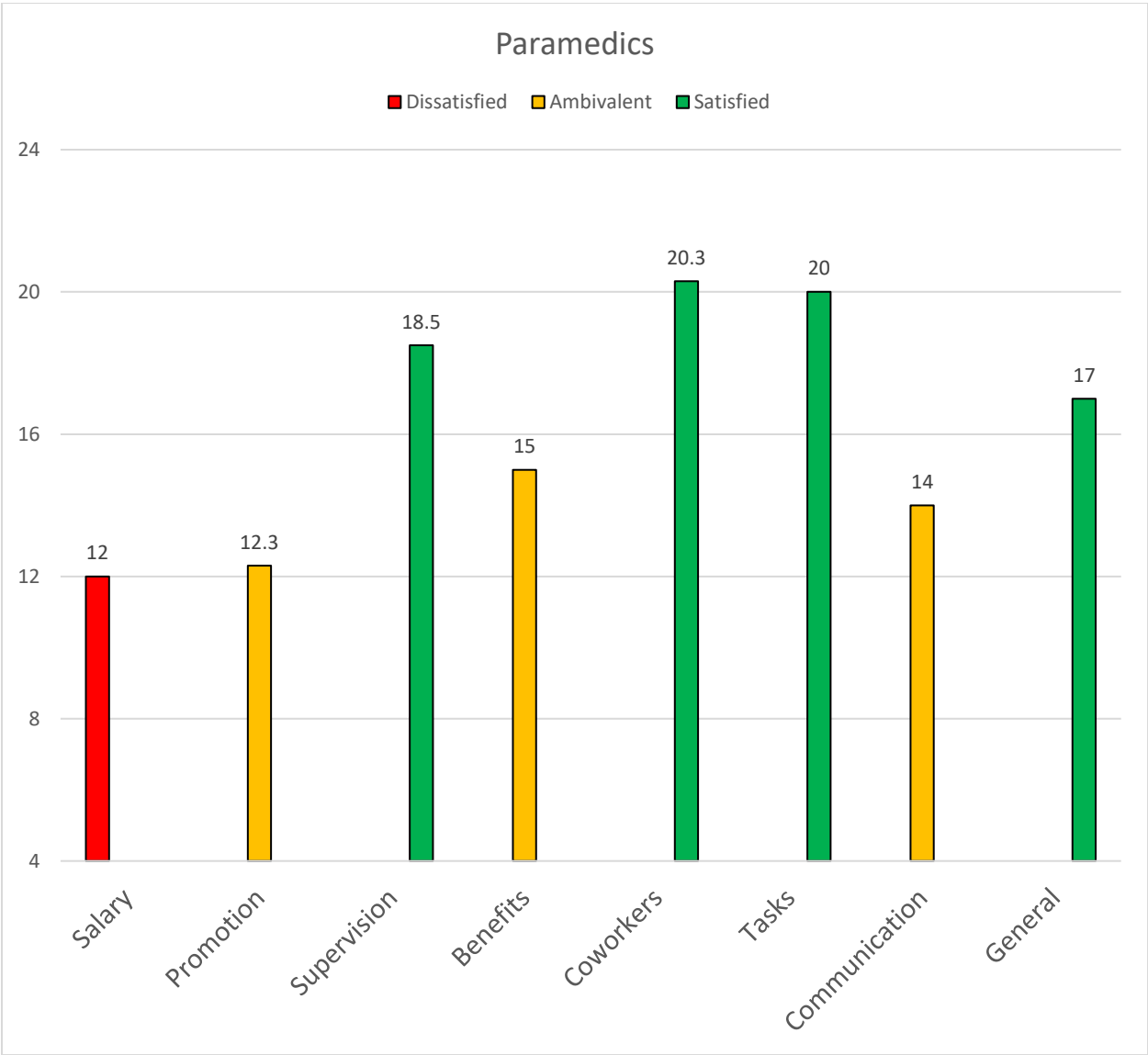


Figure 7: Profile of Job Satisfaction across Subscales



Figure 8: Profile of Job Satisfaction across Subscales



Figure 9: Profile of Job Satisfaction across Subscales

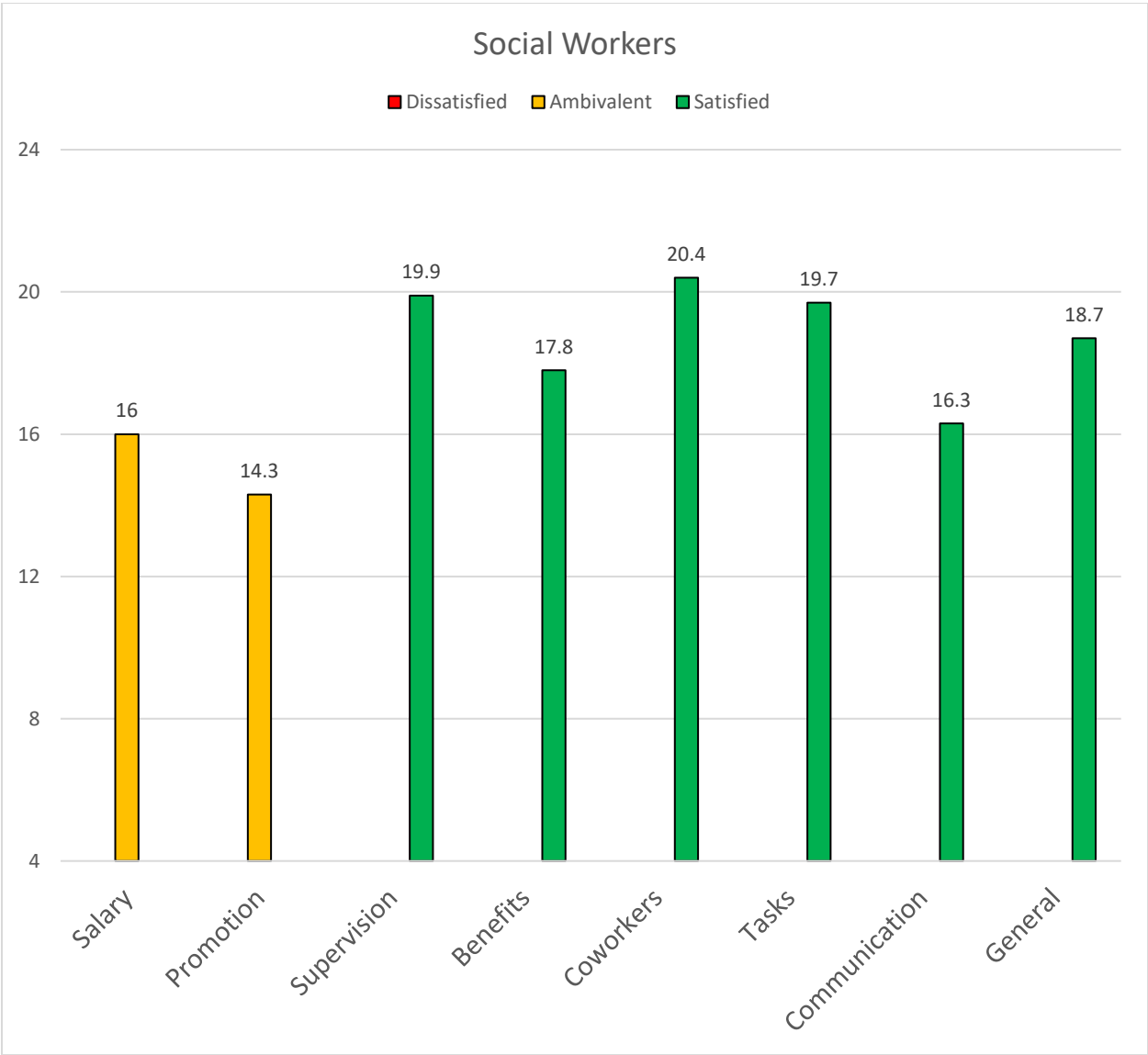


Figure 10: Profile of Job Satisfaction across Subscales

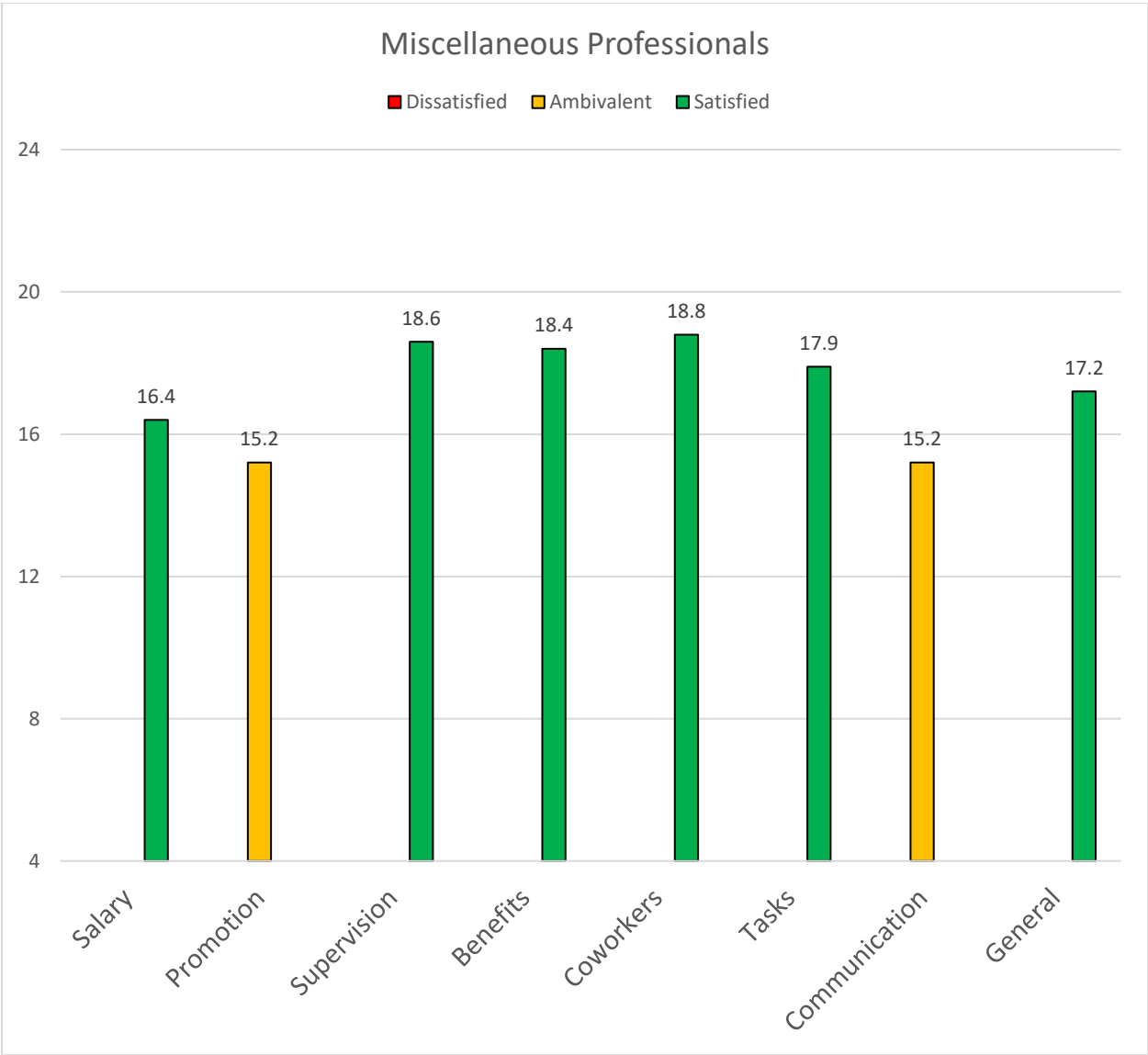
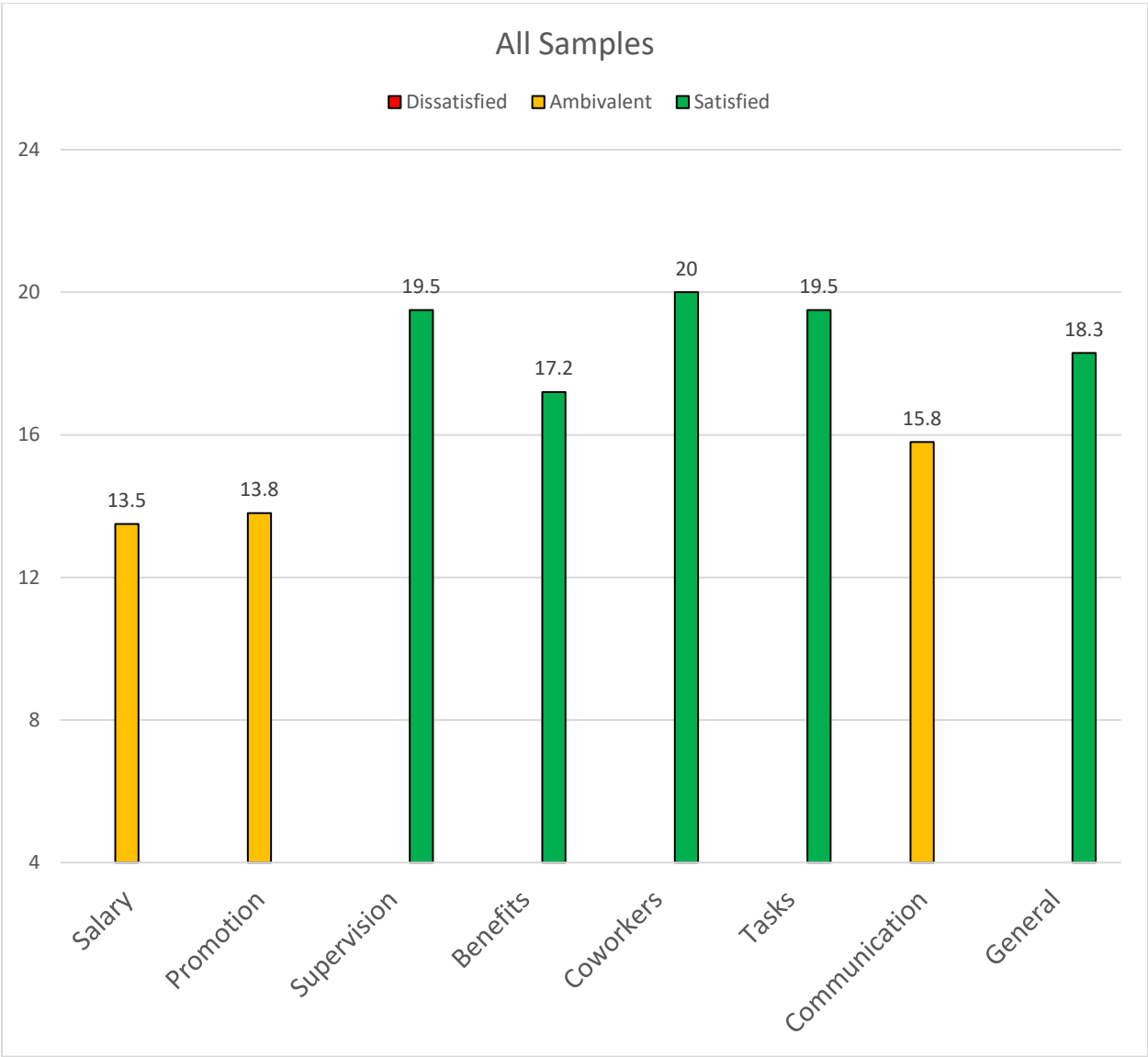


Figure 11: Profile of Job Satisfaction across Subscales



References

- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw Hill.
- Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. *American Journal of Community Psychology, 13*(6), 693-713.
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