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Exploring Horticultural Employees' Attitudes Toward Their Jobs: A Qualitative Analysis Based on Herzberg's Theory of Job Satisfaction

Vera Bitsch and Michael Hogberg

Job satisfaction is likely the most studied work-related attitude and is assumed to influence a variety of behaviors. This study analyzes the job satisfaction of agricultural employees using Herzberg's theory, which is broadly employed in management. Fourteen horticultural businesses participated in case studies of labor-management practices. Fifteen nonsupervisory employee interviews were analyzed regarding job satisfaction. Components of job satisfaction relevant to horticultural employees were family-business values, achievement, recognition, work itself, involvement, personal life, interpersonal relationships, job security, supervision, working conditions, organization, safety, compensation, and information. While support for Herzberg's theory is weak, it is useful for classifying employees' attitudes.

Key Words: human resource management, hygiene factors, in-depth interviews, job satisfaction, motivators, personnel management, qualitative research

JEL Classifications: B49, M12, M50, M54, Q12

Job satisfaction is a general attitude toward an individual's current job and organization that encompasses the feelings, beliefs, and

Vera Bitsch is assistant professor and Michael Hogberg is graduate student, Department of Agricultural Economics, Michigan State University, Lansing, MI.

Funding for this project was provided in part by project GREEN (Generating Research and Extension to Meet Economic and Environmental Needs) at Michigan State University and by the North Central Risk Management Education Center at University of Nebraska. The authors wish to thank the employees who agreed to be interviewed and openly shared their experiences, and their managers, who volunteered their businesses to participate in this project, provided facilities, and freely contributed their time. Elaine Yakura's expert input, encouragement, and comments on multiple stages of this study have been invaluable. Comments and suggestions by two anonymous reviewers of *JAAE* have greatly helped in improving the quality of this article.

thoughts about that job. Job satisfaction is likely the most studied attitude in organizational behavior (Cranny, Smith, and Stone). Most people believe that job satisfaction is closely associated with performance and numerous other important work behaviors, including absenteeism, turnover, and organizational citizenship behavior. Employees' job satisfaction is both a goal in itself and a proxy for an organization's capacity to retain and motivate its employees (Fisher and Locke; Locke).

Job satisfaction has been studied in many different ways and theories on job satisfaction are numerous, including theories of motivation and organizational behavior that have been interpreted as theories of job satisfaction in various empirical studies (for a historical overview see Locke; for a more recent discussion,

see Cranny, Smith, and Stone). In the practice of human resource management, the theory of motivation and job satisfaction put forth by Herzberg, Mausner, and Snyderman (see also Herzberg 1966), widely known as Herzberg's theory, has been very influential and underlies many current management guidelines. The continuing broad interest of management practice in Herzberg's theory has been underlined by a recent republication in the *Harvard Business Review's* "Ideas with Impact" series (Herzberg 2003).

Based on a review of job attitude research, Herzberg, Mausner, and Snyderman devised a study of work attitudes to test the assumption that job satisfaction and job dissatisfaction are not two extremes of a continuum, but are caused by different underlying job factors and cannot substitute for each other for practical purposes. Their seminal study used the critical incident method of data collection, which is a semistructured, open-ended interview technique focusing on exceptional experiences. After a brief introduction of the nature of the project, research participants were told that the interviewer was primarily interested in hearing about actual experiences. Then respondents were told to start with "... any kind of story you like—either a time when you felt exceptionally good or a time when you felt exceptionally bad about your job..." (p. 35). After the first sequence was explored, respondents were asked for the second. For the second round, they were given less freedom. If the first story had been "a high," the respondent was then asked for "a low" (p. 35) and vice versa. Some respondents went on to tell a third story and a few even told a fourth one. Details of the procedure were tested in two pilot studies.

Herzberg, Mausner, and Snyderman used a content analytical approach to analyze the data. However, they did not approach the data with preconceived categories based on the literature research ("*a priori* approach," p. 37), but developed a coding scheme of 16 factors extracted from the empirical material gathered ("*a posteriori* approach," p. 37). Choosing categories "which emerged from the material itself" (p. 37), they took an approach, today

referred to as grounded theory (see Bitsch 2005). Table 1 summarizes their definition of the job-attitude factors.

Herzberg, Mausner, and Snyderman found that, indeed, there are two clusters of factors involved in motivation and job satisfaction. They identified five factors as strong determinants of job satisfaction: achievement, recognition, work itself, responsibility, and advancement. These factors appeared only infrequently when respondents described events that were dissatisfying. They describe an individual's relationship to what he or she does, the content of the job, and were labeled motivators (Table 1). Another cluster of factors describes the situation, the context, or the environment in which the job is done. These factors can prevent or cause dissatisfaction, but not cause satisfaction. Herzberg, Mausner, and Snyderman labeled these factors hygiene factors, dissatisfiers, or maintenance factors (Herzberg 1966). Significant hygiene factors in the original study included company policy and administration, supervision—technical, salary, interpersonal relations—supervision, and working conditions. Later studies referenced in Herzberg (1966) found evidence for these and other factors of the original coding scheme outlined in Table 1. Factors presented in the results varied widely, depending on the researched populations.

Critiques of Herzberg, Mausner, and Snyderman's seminal work addressed the data collection method and the researched population. Because most studies examined supervisory, managerial, or professional employees, applicability to general labor-type jobs and positions without supervisory responsibility has been questioned. However, Herzberg (1966) cited studies with unskilled workers, such as hospital workers and housekeeping workers, which strongly supported the theory. The critical incident method of data collection seems suggestive in leading to two separate sets of job-attitude factors and studies using different methods did not lead to similar results. Still, Herzberg's theory has had a persisting impact on managers' thinking, workplace design, and other practical matters.

In 2002, American farmers spent almost

Table 1. Summary of Definitions* of Job-Attitude Factors by Herzberg, Mausner, and Snyderman (p. 44–49)

Motivators	
Recognition	Act of notice, praise, or blame to the respondent by supervisor, other management personnel, a client, a peer, the general public
Achievement	Specifically mentioned success, seeing the results of one's work, failure, or the absence of achievement
Possibility of growth	Potential for advancement, e.g., based on task assignment, or its absence, e.g., caused by lack of education; advance in skills or in profession
Advancement	Change in status of the respondent's position, excluding lateral transfers
Responsibility	Given authority or responsibility for own work or work of others, lack of responsibility
Work itself	Actual doing on the job, tasks and duties of the job as the source of feeling good or bad about it, e.g., routine or varied, overly easy, or overly difficult
Hygiene factors	
Salary	Compensation of any form; wage or salary increases, or unfilled expectations of such
Interpersonal relations	Interactions within three major categories, superior, subordinate, peers
Supervision-technical	Competence or incompetence, (un)fairness, (un)willingness to delegate, (un)willingness to teach, nagging, critical, or efficient
Company policy, administration	Aspects of overall company, (in)adequacy of organization and management, unclear reporting relationship, harmful or beneficial effects of policies
Working conditions	Physical conditions of work, amount of work, facilities available for doing work, environmental characteristic
Personal life	Job aspect(s) affected personal life, e.g., required relocation not accepted by family
Status	Sign of appurtenance of status, e.g., new secretary, allowed to drive company car
Job security	Signs of presence or absence of security, including tenure, company (in)stability

* Definitions include dissatisfying aspects of motivators and satisfying aspects of hygiene factors.

\$18.6 billion on hired labor, an over 20% increase since the previous census in 1997 (USDA). Between 1997 and 2001, the median of real wages of hired full-time farm workers increased by over 3% per year from \$306 to \$345 per week in 2000 dollars (Runyan). U.S.-wide greenhouses, nurseries, and floriculture production lead agriculture in expenses for hired labor, with \$4.1 billion in 2002 (USDA). Hired labor is paramount to the success of many farms, and its significance is increasing with growing farm sizes. However, the competitive position of agriculture on the labor

market is constrained by image problems of agriculture and the agricultural workplace, and the limited management training of managers and supervisors. This has led to concerns that labor retention and labor productivity are not at optimum levels, resulting in high turnover, depressed profits, and low farm wages.

Studies of agricultural employees' job attitudes are rare. Agricultural managers often perceive their workforce as different from the general workforce and emphasize job characteristics, such as physical strain and harsh job environment, low wages, and seasonality,

which differ from other types of work (Bitsch and Harsh). Therefore, they doubt the applicability of management practices based on research in other industries. On the other hand, extension educators have used theories and models from other industries, such as Herzberg's theory, in educational programs for decades.

An early analysis of county-extension administrators was based on Herzberg's theory and results supported it (Clegg). Another study loosely based on Herzberg, Mausner, and Snyderman analyzed job satisfaction of horticultural apprentices and found commonalities as well as differences (Bitsch 1996). Other agricultural studies have either not specified a theory (Billikopf; Howard) or have been informed by motivational theories, such as Lawler's (e.g., Fogleman et al.) or Vroom's (e.g., Darboe).

The article analyzes job satisfaction of agricultural employees as an outcome variable, which agricultural employers seek to influence through management practices and supervisory behavior. The article will contribute to the research on job satisfaction in several ways: (1) by testing whether Herzberg's theory still applies, considering changes in society and expectations regarding workplaces; (2) by extending Herzberg's theory to (a) an underresearched empirical field, agriculture, and (b) an unusual workforce (one with a large percentage of male employees and employers, a high percentage of Hispanic employees, and relatively low education levels) (Runyan), and (3) by adding evidence to a contested area of application of Herzberg's theory—nonsupervisory employees. Results of this study will help different groups of stakeholders in the industry—researchers, consultants, employers, and employees. Researchers will be able to use results to better frame studies of job attitudes. Consultants and extension educators will be able to base labor-management recommendations on empirical evidence instead of adopting them from studies of different industries. Employers and managers can use results to tailor their labor-management practices to specific jobs and their workforce, increasing retention and productivity. Employees will

benefit from improved management practices in terms of higher job satisfaction and increased ability to develop their full potential.

Herzberg's theory frames this article in multiple ways. First, it serves to organize a systematic presentation of employees' job attitudes along the distinction between motivators and hygiene factors. Second, the study tests whether Herzberg's theory can be replicated when applying a different data-collection method to a different empirical field. Will the motivators versus hygiene factors theory hold with a population of agricultural employees without or with few supervisory responsibilities? The tasks involved are often physically demanding and performed under less than optimal working conditions. In addition, it is expected that supervisory skills are limited and few supervisors received training in how to manage people. The work itself is expected to be routine, not offering much opportunity for career growth.

Herzberg's theory implies that employees will refer to motivators more often in the context of job satisfaction and positive events and will refer to hygiene factors more often in the context of dissatisfaction and negative events. This will be tested by (a) comparing the total number of statements about motivators implying job satisfaction with the number of statements implying dissatisfaction and (b) comparing the total number of statements about hygiene factors implying dissatisfaction with the number of statements implying satisfaction. In addition to the aggregated analysis of motivators and hygiene factors, the theory also suggests that an analogous hypothesis holds for each individual motivator and hygiene factor. This latter part was not fully corroborated by the seminal study and the studies presented in Herzberg (1966), which included different combinations of factors depending on the researched populations.

Material and Methods

The analysis presented in this article is based on a set of 14 case studies of labor-management practices in horticulture (four greenhouse operations, four landscape contractors, and six

nurseries). The use of qualitative case studies has been advocated to increase methodological pluralism and broaden agricultural economics research approaches in a number of recent publications (Kennedy and Luzar; see also Bitsch 2000; Sterns, Schweikhardt, and Peterson). The case-study approach is particularly suited for contemporary phenomena, when focusing on the perspective of the actors involved (Westgren and Zering). Although studies of job satisfaction typically use survey methods, employ rating scales, and rely on correlation analysis, we believe that a qualitative approach will clarify issues and reframe research approaches (see Locke, p. 1343, for a similar argument by one of the most cited articles on job satisfaction research).

All participating businesses were located in Michigan and were visited between March and May 2003. The sample of interviews analyzed consisted of a total of 15 employees who agreed to talk about their work experience and management practices in their firms. All respondents were described by the company's owner or a senior manager as nonsupervisory employees, but five of them mentioned first-line supervisory responsibilities during their interviews and one respondent had started to train as a supervisor but decided to revert back to a nonsupervisory position. Other interviewees were approached by coworkers in lieu of the supervisor because they were able to speak both English and Spanish. Of the 15 interviewees, 7 were male and 8 were female. Three male and four female employees were of Hispanic descent. This mirrors the agricultural workforce, which shows a significant and increasing share of Hispanics (46% in 2001, Runyan). Although some employees do not speak or understand English well, these Hispanic interviewees were all bilingual and fluent in both languages.

Interviews followed an interview schedule with open-ended questions. Interviews lasted on average 45 minutes, ranging between 30 and 70 minutes. After establishing rapport with the interviewees, different questions targeted how employees felt about their work and its environment. Specific positive or negative events were not solicited, but explored if re-

spondents volunteered them. Examples of lead-in questions included "What do you like (dislike) about your job?"; "How would you describe your relationship with your supervisor?"; "How do you feel about wages and benefits?"; "What are the specific strengths (weaknesses) of the personnel management practices, here?"; and "What would you like to change?" Respondents were encouraged to provide in-depth answers through probing. The order of questions was adapted to the flow of answers. Any themes brought up by respondents were explored by the interviewer. A number of additional questions about specific management practices, e.g., training, employee evaluation, and conflict management, also yielded job-satisfaction-related answers, and interviewers encouraged the provision of details.

All interviews were tape-recorded and transcribed. Data analysis and coding were based on the transcripts, using the ATLAS.ti software package. Coding with this software greatly facilitates analysis and retrieval of relevant speech turns compared with using the traditional method using index cards. The purpose of coding is to enable the comparative analysis of the data by labeling all data pertinent to a topic with a specific heading (or code). It is basically a data-management tool, which is necessary because speech turns relating to any of the job factors and attitudes are not limited to a single occurrence in the interview, as would be the case in a structured interview, but scattered throughout the transcript. Coding is iterative; coders read through the transcripts several times and can go back to speech turns coded earlier, reread, and, if necessary, recode them, should later evidence suggest different interpretations. Coding is nonexclusive; coders will attach as many codes as appropriate to each speech turn. Given that in-depth interviews use natural language, interviewees tend to comment on more than one aspect of their job during each turn. A final decision on the coding is postponed until after each speech turn can be compared with all others labeled with the same code for each individual coder. With more than one coder, the final interpretation will depend on a

discussion of any coding differences after the individual coding has been completed.

The initial coding scheme was modeled after Herzberg's 16 job-attitude factors. In addition to the job factors, job attitudes were coded as satisfaction and dissatisfaction. During the analysis, this bipolar distinction seemed insufficient to describe the complete spectrum of employees' job responses; therefore, ambivalence was added to the coding scheme. Although ambivalence could be resolved by coding very small units, this category extends Herzberg's theory by acknowledging that respondents can be conflicted about their attitudes toward job factors. However, the number of ambivalent statements was too small to warrant further analysis.

Furthermore, several job factors were collapsed to a single code: advancement, achievement, and possibility of growth were all coded as achievement and responsibility was included as work itself. These factors were closely related motivators (Table 1). Statements about these factors typically appeared together and, considering the hierarchical level of these employees and their tasks, keeping them separate seemed not only difficult, but not fitting for the population. The salary factor was labeled compensation. Judging from the definition, the original coding scheme should have reflected the total compensation package, including benefits and perquisites, although not explicitly enumerated (Table 1). Company policy and administration was relabeled organization. Status was excluded from the coding scheme because interviewees made no references to status.

After an open coding of the transcripts, additional factors emerged that will be reported in the Results section, but were not included in testing the general hypothesis. These factors overlap, in parts, with different factors of Herzberg's theory, but emphasizing them separately adds to the understanding of job satisfaction from the respondents' perspectives. They also have the potential to more closely connect the discussion of job satisfaction to other discourses in management research (e.g., employee involvement) and regulatory practice (e.g., workplace safety).

Family-business values refers to a family-like atmosphere in the organization. Also, supervisors and/or senior managers employed management practices that reflect respect for family necessities (e.g., flexible scheduling). Involvement refers to the level of input of employees in decision making and employees' willingness to make suggestions for improvement at the workplace. Safety refers to safety rules, training, and enforcement, accident prevention, and dealing with accidents in the workplace. Safety also includes work-related health problems and their prevention (e.g., paid time for prework stretching exercises). Information refers to the information about the company that is shared with nonsupervisory employees, including short-term and long-term planning information, financial information, and ownership changes.

The analysis of the job factors and how often they appear in a positive and satisfying context or in a negative and dissatisfying context is based on the number of citations, rather than on the number of respondents. Thus, when an interviewee talks about how well her supervisor fulfills her task (e.g., communicating task assignments, training new employees, and enforcing rules and regulations) at different times during an interview, each relevant speech turn was coded and counted as one citation. Extended speech turns were broken into smaller units for comparability of respondents. This type of analysis assumes that a factor mentioned more often is more important to respondents. Herzberg, Mausner, and Snyderman followed a similar general approach, but presented their results in percentages of positive or negative sequences. A sequence is a storyline as presented by the interviewee. This approach cannot be used here because a different data collection method was used and interviewees were not asked for job (dis)satisfaction stories. Therefore, percentages cannot be compared directly.

Each interview was analyzed by two independent coders: the main investigator and the graduate student who had interviewed most of the employees. After an initial round of coding, codes were discussed and code definitions clarified. In a second round, all inter-

Table 2. Attitudes Related to Aggregated Job Factors (Percentage of Total Citations)*

	Satisfaction (%)	Dissatisfaction (%)	Difference (%)
Motivators	69	27	42
Hygiene factors	62	33	29
Difference	7	-6	13

* Job attitudes (satisfaction, dissatisfaction) do not necessarily add up to 100% because ambiguity has been omitted from the table.

views were recoded based on the final coding scheme by each coder. In the third round of analysis, coders met and discussed the coding and interpretation of each speech turn until consensus about the meaning of each citation and the appropriate code was reached. In addition, an independent researcher spot checked the coding of all interviews.

Results

Results are presented in three sections: (1) aggregated findings regarding the motivators versus hygiene factors theory, (2) specific results for each motivator and hygiene factor based on Herzberg's theory, and (3) additional findings that emerged during the analysis process, suggesting additional factors to be considered for the researched population. Results are presented in percentages of total citations aggregated across all interviewees. Percentages reported should be interpreted as trends, showing the job attitudes of the researched group. Specific percentages cannot be generalized to the population of agricultural employees because the number of interviewees is relatively small.

Aggregated Findings Regarding the Motivator Versus Hygiene Factors Theory

Table 2 shows the aggregated analysis results for both motivators and hygiene factors. The percentages reported in the table are based on the sum of all statements coded as one of the job factors outlined in Herzberg's theory (Table 1). They are interpreted with respect to the

general hypothesis: (a) for all motivators, combined satisfaction is higher than dissatisfaction; and (b) for all hygiene factors combined, dissatisfaction is higher than satisfaction. While the data support part (a) of the general hypothesis, with positive remarks being 42% more frequent than negative remarks referring to motivators, part (b) could not be corroborated. Positive remarks referring to hygiene factors were also more frequent, a result that contradicts findings referenced by Herzberg, Mausner, and Snyderman and by Herzberg (1966). Overall, the researched group of employees was two times more likely to talk about positive feelings of job satisfaction (63%) than negative feelings of dissatisfaction (31%). Four percent of all motivator citations and 5% of all hygiene factor citations were ambiguous.

While evidence presented in Table 2 does not support the hygiene-factor part of the general hypothesis, it offers some support for the weaker hypothesis set forth by Herzberg, Mausner, and Snyderman that two different groups of factors cause satisfaction and dissatisfaction on the job. All signs reported in Table 2 have the expected direction, except for the difference between satisfaction and dissatisfaction for hygiene factors: satisfaction is mentioned more frequently referring to motivators than to hygiene factors; dissatisfaction is mentioned more frequently referring to hygiene factors than to motivators. In addition, the difference between positive statements and negative statements regarding hygiene factors is smaller than for the motivators. As a group, hygiene factors are less frequently related with satisfaction than motivators and more frequently related with dissatisfaction. However, differences are much smaller than expected.

Specific Results for Individual Motivators and Hygiene Factors

This section discusses results for each individual job satisfaction factor included in the aggregated calculations, starting with the motivators. While motivators follow Herzberg's theory in general, evidence is weaker for some factors than for others. The results for the hy-

Table 3. Attitudes Related to Motivators (Percentage of Citations)*

	Satisfaction (%)	Dissatisfaction (%)	Difference (%)
Achievement	82	18	64
Recognition	70	22	48
Work itself	58	36	22

* Job attitudes (satisfaction, dissatisfaction) do not necessarily add up to 100% because ambiguity has been omitted from the table.

giene factors contradict Herzberg's theory for almost every individual factor.

For the first two motivators, achievement and recognition, Table 3 shows strong support for the hypothesis that positive attitudes are more frequently reported than negative attitudes. Reflecting part (a) of the general hypothesis, these findings support Herzberg's theory. However, while work itself shows the expected sign, satisfaction being more frequent than dissatisfaction, the difference is smaller than expected. Work itself seems more like a hygiene factor when compared with the aggregated results (Table 2). Whether work itself functions as a motivator for nonsupervisory and first-line supervisory employees remains questionable. One area of dissatisfaction is the assignment of first-line supervisory tasks. Another area of dissatisfaction is the requirement to translate for the supervisor and inform coworkers about task assignments, particularly when the supervisor is absent. These employees often are not taken seriously by their coworkers, but either feel partly responsible or do not want the additional responsibility.

Table 4 provides an overview of the results for the hygiene factors of Herzberg's theory. With one exception, signs are not showing the expected direction. The hygiene factors are not mentioned more frequently in a negative context than in a positive context. Three of these factors stand out in showing a motivator-like strong dominance of positive over negative statements: personal life; interpersonal, superiors; and job security.

Herzberg, Mausner, and Snyderman saw

Table 4. Attitudes Related to Hygiene Factors (Percentage of Citations)*

	Satisfaction (%)	Dissatisfaction (%)	Difference (%)
Personal life	90	10	80
Job security	85	15	70
Supervision	66	30	36
Interpersonal, total	66	31	35
Superior(s)	89	9	80
Peers	49	46	3
Subordinates	32	59	-27
Not specified	82	16	66
Working conditions	61	33	28
Organization	56	38	18
Compensation	49	42	7

* Job attitudes (satisfaction, dissatisfaction) do not necessarily add up to 100% because ambiguity has been omitted from the table.

interaction of professional and personal life as a source of conflict and dissatisfaction because both compete for an employee's time. The researched group of employees has very few complaints in that respect. Not only do they share their workplace with friends and even family, but they also admire their supervisor's flexibility in accommodating their individual preferences and the necessities of their family life.

Job security functions as a motivator. Employees mention the years they have been with the company and its financial well being and growth as indicators of job security. Some employees did work for a different business for a time and were welcomed back, often under better conditions than before. Most feel their jobs are secure, even when hired on a seasonal basis. They know they can come back for the next season and a job will be waiting for them.

The technical aspects of supervision, e.g., training, communication, competence, and fairness, are also seen primarily with satisfaction. Some employees are enthusiastic about their supervisor's competence and skills. An understanding, flexible supervisor with a sense of humor, who shows recognition and gives constructive feedback, builds loyalty in employees. Complaints and dissatisfaction with supervision address lack of communication,

incomplete instructions, favoritism, talking down, and being pushy or harsh when mistakes are made. Positive comments are twice as frequent as negative comments.

Overall, interpersonal relationships seem to act as a motivator for this group, with positive comments twice as frequent as negative comments. The strongest positive subgroup is the interpersonal relationships with superiors. Personal relationships with supervisors and senior managers are a source of satisfaction. While the researchers had expected employees not to differentiate between the technical aspects of supervision and the personal relationships, most of them reported positive personal relationships, even when being critical of the technical skills of their supervisors.

Similar to personal relationships with superiors, employees are very satisfied with personal relationships in general (not specified). This code was used for both general references to other people at the workplace and when the reporting relationships were not defined during the interview. For peer relationships, positive comments are only slightly more frequent than negative comments; therefore, the role of peer relationships in the workplace is ambiguous.

The sole hygiene factor with the expected sign, where dissatisfaction is more frequent than satisfaction, is the interpersonal relationships with subordinates. As expected in targeting nonsupervisory employees, the number of citations for this code is small (3% of all job factor citations). Whether first-line supervisory responsibilities jeopardize personal relationships, whether the often new and unprepared supervisory role creates role conflicts for employees, or whether this result evidences the hygiene aspect of interpersonal relationships requires further study. Comparing results with the attitudes of more experienced supervisors could bring clarity to this factor.

Working conditions are linked with positive comments more often than with negative comments. Working outdoors is typically perceived as positive, but weather conditions (cold, heat, wind) are perceived as taking a toll on the body, and are therefore negative. Overall, working in agriculture is seen as positive.

Employees care about positive or negative aspects of the facilities (lunch room, restroom). Work load, work pace, and hours worked are perceived differently by different employees. Some employees feel stressed by working too many hours; others feel they are not getting enough hours or complain about high variance in the work flow. Compared with the aggregated factors (Table 2), working conditions are more similar to hygiene factors than to motivators.

Comments on business organization, hierarchy, policies, and procedures are more often positive than negative. In general, procedures and policies are accepted as useful. Particularly when leaving enough flexibility for individual cases, employees are satisfied with the organization. Some interviewees perceive their company as needing more structure and rules. For instance, when ownership and management responsibilities are split between two or more individuals, conflicting assignments may arise. The small difference between positive and negative comments indicates that organization is more a hygiene factor than a motivator.

Based on previous research with horticultural employees (Bitsch 1996) and the wage level in the industry (Runyan), compensation was expected to be an area of dissatisfaction. However, positive comments are slightly more frequent than negative comments. In particular, entry-level wages are perceived as low. Companies use different bonus systems to increase the base wage and to reward desired behaviors, e.g., punctuality. Employees see these bonuses primarily as additional compensation. The most frequent complaint was the lack of regular raises or an established system to decide on raises. Fringe benefits were appreciated where available. Some employees would like to see better coverage. When asked what would be a reason to accept a different job, better pay or benefits were mentioned most frequently. Perquisites, such as meals, occasional presents, use of tools and machinery, led to positive feelings about work. Still, the small difference between positive and negative comments establishes the role of wages and benefits as a hygiene factor.

Table 5. Additional Job Attitudes (Percentage of Citations)*

	Satisfaction (%)	Dissatis- faction (%)	Difference (%)
Family-business values	95	5	90
Involvement	77	12	65
Safety	58	31	27
Information	46	42	4

* Job attitudes (satisfaction, dissatisfaction) do not necessarily add up to 100% because ambiguity has been omitted from the table.

Additional Findings

Additional analysis of the interview transcripts culminated in four factors that are important to this group of employees but were not included in Herzberg's theory (Table 5). One unexpected concept was labeled family-business values. Because this factor was not anticipated and comments have not been encouraged through specific questions, the number of citations is small (3% of all citations). However, 9 out of 15 interviewees brought up family-business values in a positive manner, only one of them adding some negative aspects. Positive references include that employees feel taken care of, that the workplace is like a family, and that employees have direct access to top management. Based on these comments, we assume that family-business values can act as a strong motivator.

Involvement is the level of input an employee has in workplace decisions. Will the supervisor inquire about the employee's opinion regarding the task at hand; how it is done and with whom? Will the supervisor consider the employee's input, if it is offered? Do employees have a word in equipment-purchase decisions and facility upgrades? Will their opinion be requested in product development or improvement? Do employees offer suggestions for improvement and how are they dealt with? A feeling of working for a common goal is an indicator of involvement on a general level. According to the results, involvement functions as a strong motivator.

Drawing more positive comments than negative ones, safety is a concern of employees. Safety includes references to accidents and work-related illnesses. Employees want to feel safe at their workplace and are troubled by unsafe conditions and accidents. They appreciate any improvement, such as training and precautions. But they are concerned that improvements often only happen after something goes wrong and that safety committees, even where they exist, do not meet regularly. Similar to working conditions in general, safety draws almost twice as many positive comments as negative comments. Compared with the aggregated factors (Table 2), safety is a hygiene factor.

Different from instances when employees use the term information and mean aspects of supervision (e.g., clear and complete instructions), the factor information describes whether employees receive information beyond their immediate job about the company in general, change in ownership, long-term plans, and financial well being. Information can contribute to satisfaction, if an employee receives regular updates on the company. Information can also be a source of dissatisfaction, when employees feel left in the dark and would like to see more regular meetings. Similar to compensation, information seems to function as a hygiene factor (Table 5).

Discussion and Conclusions

Support for Herzberg's theory of job context factors causing dissatisfaction or the absence thereof versus job content factors causing satisfaction or no satisfaction provided through this analysis is weak. While the number of respondents is small, few cases can suffice to challenge or qualify a theory. The critique that the two-cluster theory is possibly an artifact of the critical-incident data collection method seems to the point.

Using an in-depth interview approach, the results show no clear-cut boundary between positive and negative feelings about the job along the lines of content versus context factors. Some context factors—personal life, interpersonal relationships with superiors, and

family-business values—function as motivators. On the other hand, a content factor—work itself—shows a potential for dissatisfaction that challenges its role as a motivator for this group of employees with mostly general labor-type tasks. These findings are important because motivational approaches to work design often focus narrowly on the task itself, thereby unnecessarily limiting the scope of potential improvements.

Results of this study indicate that both groups of factors, content and context factors, can substitute for each other to some extent. Job satisfaction does not solely depend on motivators. Most interviewees would recommend their company to a friend or a relative searching for a job, which means they have reached, at minimum, a basic satisfaction level.

Overall, employees are much less likely to emphasize negative aspects of their work than positive ones. Eliciting negative comments required intensive probing, while interviewees liked to dwell on the positive. This corresponds with typical findings in job satisfaction studies of 70–90% satisfied employees and does not necessarily indicate very high satisfaction levels, but rather social expectations and response tendencies.

The results of this analysis correspond with other studies of job satisfaction in agriculture. Bitsch (1996) notes physical strain and wages as the most frequent reasons to leave the industry cited by horticultural apprentices in Germany. Dissatisfying aspects of working conditions and perceptions of wages and benefits cited by nonsupervisory employees corroborate these results. The most frequently stated area for improving job satisfaction in the apprentice study was also compensation. Recognition, support with additional training and development, and participation and responsibility in work-related decisions were other frequent responses. These responses correspond with satisfying and dissatisfying aspects of supervision and involvement articulated by nonsupervisory employees. Fogleman et al., in a study of dairy-farm employees in New York, also found overall high satisfaction levels, but varying satisfaction with different components. The satisfac-

tion component over which managers and supervisors have the most control, feedback, is where employees were least satisfied. This result corresponds with the presumed deficit in supervisory training of agricultural supervisors and managers and the results of this study.

While some areas of dissatisfaction, such as compensation and working conditions, are structural and possibly hard to change, others are more accessible. First-line supervisors, particularly when promoted out of a group of peers, need preparation for supervisory tasks. They need to learn what is expected of them in their new role and training on how to manage people. In addition, responsibility, even for a small group, needs to be accompanied by authority. Without decision-making authority, leading others is more difficult. Managers should not assume that a subordinate who is doing an excellent job is necessarily willing, and able, to take on more responsibility. Some employees feel coerced into accepting a supervisory position that they are not ready to fill—one reason being the higher compensation that accompanies it.

Other points of intervention are internal communication and information. Regular meetings serve multiple purposes: recognition of employees' contributions, general information about the company, long-term plans and developments, and review of organizational rules and policies. A culture of communication should also include safety and accident-prevention aspects, both at the company level and at work-group levels.

Although broadening this analysis to a larger group of employees would provide more credibility to the analysis, the next step in solidifying the above conclusions requires the analysis of supervisory employees' attitudes in a similar work environment. Supervisory interviews from the same or similar companies would provide the necessary contrast to develop a more complete picture of job satisfaction in agriculture. In addition, the usefulness of Herzberg's theory for analyzing job satisfaction in agriculture could be further clarified with the analysis of different positions and levels of responsibility. Even with

weak support for the motivator versus hygiene factor aspect of Herzberg's theory, it has been useful to classify employees' attitudes and provide a systematic approach to analyzing job satisfaction components. This organizing function of Herzberg's theory is most likely one of its lasting contributions, in addition to guiding management practice for decades.

Future studies of a broader sample of employees using surveys, specifically standardized questionnaires, can use the results reported here to adapt standardized research instruments to the agricultural population. Phrasing questions closer to employees' conceptualizations of their work will help avoid misunderstanding of questions and overcome bias caused by misinterpretation and response tendencies. With more specific and targeted questions, including open-ended questions in survey instruments, employees are more likely to provide valid answers. In addition, the open and in-depth approach used for this explorative research has uncovered several components of job satisfaction that have not been included in previous research, but seem to play a significant role for the employees interviewed in this study. Including family-business values, involvement, information, and safety as job-satisfaction factors in future studies will add to labor-management theory and applicability of results to agricultural labor-management practice and beyond.

[Received December 2004; Accepted June 2005.]

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