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<td>Careers in Arm's-Length Contracting: Evidence from the Chilean Wine-grape Market</td>
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**I want to submit an abstract for:**

Conference Presentation

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**Keywords**

Implicit incentives; careers; promotions; contracts; wine grapes; Chile

**Research Question**

Are long-run career and promotion-based incentives present in the context of market contracting between wineries and independent wine-grape suppliers in Chile?

**Methods**

We develop a theoretical model that incorporates promotion and career incentives in arm's length contracting. Empirically, we estimate the probability of accessing a long-term contract using a Probit model.

**Results**

We find that implicit market-based incentives (promotions and careers), usually studied in the context of employment contracts, are also important in arm's-length relationships.

**Abstract**

Imperfect performance measurement creates a transaction cost in the market for labor, and this friction is seen as a fundamental reason for the existence of firms. Costly monitoring and authority mechanisms are organizational responses to associated incentive problems, and these mechanisms effectively define the firm as an organizational unit. In such a setting, long-run "career" and "promotion-based" incentives provide additional sources of motivation for employees to work diligently, and to acquire new skills. In this paper, we investigate the presence of these forms of long-run incentive provision in the context of market contracting between firms and independent suppliers. We find that organizational strategies used by firms to address imperfect performance measurement with respect to their employees are also used in arm's-length relationships with contract labor, thus blurring the defining features of the firm.
Holmstrom (1999) identifies implicit incentives embedded in the market for managerial talent—"career incentives"—as a substitute for direct on-going performance incentives. Similarly, Prendergast (1993) examines the use of promotion ladders as a source of motivation for workers to invest in noncontractible human capital. In both cases, the authors use employment contracts to motivate their theory, and subsequent empirical work similarly focuses on the existence and use of these strategies among firms and their employees. For example, Gibbons and Murphy (1992) test the career concerns model using evidence from chief executive officers' compensation and stock market performance. Consistent with theory, they find that pay for performance is stronger in years close to retirement. Chevalier and Ellison (1999) study the relationship between termination, performance, and seniority for a sample of mutual fund managers. They find that the likelihood of retention of a manager's job is increasing in her performance. They also find that the likelihood of termination is more performance-sensitive for younger managers.

The purpose of this paper is to ask whether similar incentives exist for independent suppliers. In particular, we provide evidence on implicit market-based incentives and promotion ladders within arm's length contracts between independent wine-grape growers and wineries in Chile. We observe pay-for-performance provisions that depend on measurable characteristics of grape quality, and we test for the presence of complementary implicit incentives that arise from competition in the market for contract growers. To motivate our empirical analysis, we develop a stylized model that compares one-period, repeated one-period, and long-term contracts. From this comparison, we note how the existence of implicit incentives can be inferred by measuring differences in the characteristics of growers, and in the structure of the contracts they face as their participation in the market evolves.

To our knowledge, this is a first attempt to study the interaction between implicit career- and promotion-based incentives, and current-period contractual incentives, within the context of an arm’s length relationship. We hypothesize that wineries desire supply relationships with growers who are capable of reliably producing high-quality grapes. Finding such a grower, wineries then make specific investments that can only be protected by commitment to a long-term relationship. Growers generally benefit from participation in a long-term relationship, and undertake effort early in their careers to signal their ability. This is valuable to the extent that wineries use a sequence of single-period contracts to learn growers' types. We see support for this type of progression in our data.

In particular, we find that contracts in the Chilean wine-grape market are structured like a promotion ladder, and that more capable and experienced growers move up the rungs of this ladder over time. The probability of accessing a long-term contract depends on past performance, grower ability, and market competition. Our findings suggest that wineries compete to get high-ability high-quality producers. These results are consistent with the existence of implicit market-based incentives that effectively represent "careers in farming" in the sense that growers must invest and become more able, educated, and experienced to increase the likelihood of being selected for a long-term relationship. This may be a specific example of a more general phenomena in arm's-length relationships, where downstream buyers experiment with upstream suppliers through a sequence of repeated short-term contracts, though we are unaware of prior evidence for this behavior. The prospect of promotion to a long-term contract provides incentives for quality improvement that complement short-term pay-for-performance incentives. Similarly, market knowledge of supplier performance generates competition for the better suppliers, providing long-term incentives to improve quality.

In what follows, we begin by discussing related literature. We then describe the production environment and contracts observed in the Chilean wine-grape market. In the subsequent section, we present a theoretical framework that guides our empirical analysis, followed by our estimation strategy and results. The final section concludes.

References