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Payers Test Reference Pricing And Centers Of Excellence To Steer Patients To Low-Price And High-Quality Providers

ABSTRACT Hospitals frequently exhibit wide variation in their prices, and employers and insurers are now experimenting with the use of incentives to encourage employees to make price-conscious choices. This article examines two major new benefit design instruments being tested. In reference pricing, an employer or insurer makes a defined contribution toward covering the cost of a particular service and the patient pays the remainder. Through centers of excellence, employers or insurers limit coverage or strongly encourage patients to use particular hospitals for such procedures as orthopedic joint replacement, interventional cardiology, and cardiac surgery. We compare these two types of benefit designs with respect to consumer choice and how they balance price and quality. The article then examines their potential role in the policy debate over appropriate coverage and cost-sharing requirements.

The Dartmouth Atlas of Health Care has drawn the attention of health care purchasers to the wide geographic variation in rates of health care use and the lack of corresponding variation in quality of care. This variation in use has led purchasers to examine variation in the price of particular services, both within and across geographic markets, and to consider how these variations in price influence the costs of insurance.

In recent years, employers have been raising copayments and deductibles in their insurance benefits, mainly in an effort to limit their exposure to rising health costs. However, these mechanisms often do not influence patients to choose providers based on the price they charge for a product, because the large variation in provider prices is frequently above the deductible and annual out-of-pocket maximum. Some large employers are experimenting with benefit design incentives for employees to select lower-price, high-quality providers rather than higher-price ones for a diverse range of services, from major surgical procedures through complex imaging tests to low-cost but high-volume laboratory assays.

This article describes two insurance benefit designs that are emerging in response to the variance in prices for similar services. We first examine reference pricing, in which the insurer makes a defined contribution toward covering the cost of a particular service and the patient pays the remainder. Through centers of excellence, employers or insurers limit coverage or strongly encourage patients to use particular hospitals for such procedures as orthopedic joint replacement, interventional cardiology, and cardiac surgery. We compare these two types of benefit designs with respect to consumer choice and how they balance price and quality. The article then examines their potential role in the policy debate over appropriate coverage and cost-sharing requirements.

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By James C. Robinson and Kimberly MacPherson
as part of a research project on innovation in benefit design, which involved fifty-five interviews with employers, executives, and physicians in health insurance plans, self-insured benefit programs, insurance brokerages, hospitals, and regulatory agencies.

In the concluding section of the article, we discuss reference pricing and centers-of-excellence contracting in light of state regulation of insurance and the Affordable Care Act.

Reference Pricing
Reference pricing is a benefit design element according to which the employer or insurer pays a defined contribution toward covering the full price charged by the provider, with the patient being required to pay the remainder. Reference pricing can be interpreted as a reverse deductible, in which the insurer, rather than the enrollee, pays the first part of the total allowed charge and the enrollee pays the remainder.

The reference pricing design highlights variability in price to the patient, who—in many plan designs—is the one making the choice among alternative facilities. It is well adapted to preferred provider organization insurance products, which typically have broad provider networks, in contrast to the traditionally narrower health maintenance organization networks. It is best used for services that display substantial variability within the market in price but very little variability in quality. For services with variability in both price and quality, reference pricing can be portrayed by high-price providers as channeling patients to low-quality providers, even in the absence of evidence that higher price is associated with higher quality.

Reference pricing has been used in a variety of contexts in which payment for one product is linked to the price charged for similar products—for example, when the allowable price for one drug in a particular market is linked to the price paid for a different drug or in a different market. Reference pricing is similar to indemnity insurance, under which the insurer pays a predetermined contribution toward the cost of an insured service and the enrollee pays the remainder. In contrast to indemnity insurance, however, reference pricing in the contemporary market sets the insurer’s contribution at a level high enough to ensure that enrollees have access to sufficient numbers of high-quality providers with modest out-of-pocket payments. Out-of-pocket payments can be very high, however, if enrollees instead choose providers charging exceptionally high rates that exceed the reference price limit.

Reference pricing contrasts with the benefit structure most commonly found in contempo-
Centers-of-excellence contracting derives its name from insurer initiatives to channel patients needing very specialized procedures, such as organ transplantation, to hospitals that demonstrate superior clinical outcomes. Health plans and employers are extending centers-of-excellence principles to more common surgical and medical procedures. This type of contracting also builds on recent efforts in international medical tourism, which seek to take advantage of differences in surgical costs by covering travel expenses for patients willing to obtain a needed procedure in Singapore, India, or another nation that has accredited facilities with quality records equal to those in the United States.

Employers and insurers contract with particular hospitals as centers of excellence on the basis of both quality and price. Typically hospitals must first pass a quality screening, providing data to show that their clinical outcomes and patient satisfaction exceed a threshold defined by the purchaser. Then purchasers negotiate with the hospitals on the basis of price, typically in the form of a case rate for the hospital stay. Some case rates include payments for the attending physicians in addition to the hospital’s charges. Some include preoperative tests and postoperative rehabilitation services.

Centers-of-excellence benefit designs can rely on either carrots or sticks to channel enrollees to preferred providers. The centers of excellence can be designated as the only covered providers for the services under consideration, with the patient required to pay all charges if he or she chooses another provider, except during an emergency. Alternatively, the centers of excellence can be offered as a supplement to the broader provider network, with the inducement for patients stemming from lower cost sharing at the centers of excellence. Communication strategies seek to ensure that consumers are aware of the program and the specific incentives involved.

Centers-of-excellence contracting expands the geographic scope of provider markets and thereby potentially increases the number of competitors and the intensity of competition. Many health care markets are too small to support active hospital competition—a limitation exacerbated by mergers among once-independent facilities.4

As Michael Porter and Elizabeth Teisberg argue, expansion of the geographic scope of the market through patient travel is one antidote to insufficient numbers of competitors in any one locality.5 Some patients already travel considerable distances to gain access to renowned providers of oncology, orthopedics, and cardiology services. Travel medicine works best for high-cost, nonemergency tests and procedures, in contrast to low-cost, frequently used services. Travel medicine requires extra efforts to ensure the coordination of follow-up care—which occurs near the patient’s home—with the services provided at the distant center of excellence.

Comparing The Two Strategies
Reference pricing and centers-of-excellence contracting exhibit important similarities and important differences as strategies for taking advantage of the variation in prices across providers that offer similar services. Reference pricing can be a softer incentive design than centers-of-excellence contracting. Reference pricing retains partial coverage for care obtained from nonpreferred providers, whereas some centers-of-excellence contracts deny coverage altogether for services received at facilities that are not centers of excellence.

However, reference pricing can also create stronger incentives than centers-of-excellence contracting. Some centers-of-excellence benefit designs reduce a patient’s cost sharing at facilities with center-of-excellence status but retain a traditional cost-sharing formula—for example, a classic 80-20 split—at facilities without that status. In contrast, reference pricing assigns to the patient 100 percent, not merely 20 percent, of the extra provider fee to be paid.

Both reference pricing and centers-of-excellence contracting require extensive communication with enrollees concerning the financial advantages of using preferred providers. Communication is essential for reference pricing because consumers must understand that if they use high-price facilities, they cannot expect reimbursement for the amount over the reference-price limit. It is also essential in centers-of-excellence contracting, because consumers must realize that if they use a facility not on the employer’s or insurer’s list of covered facilities, they will have to pay a higher share of the cost, and perhaps all of it.

Reference pricing and centers-of-excellence contracting can be applied with varying degrees of stringency. Costs are controlled more effectively if the reference-price limit is set at a low level and the number of centers-of-excellence hospitals is small, because this stringency channels more volume to preferred providers. But stringency can stimulate resistance from excluded providers, which may argue that they offer higher quality than chosen providers, are essential community institutions, or pursue mission-related activities such as research and teaching.

Chains of hospitals may invoke all-or-none
contract clauses, which prohibit an insurer from excluding any facility owned by the chain if it wants to include others. Hospital chains may refuse to allow a facility to be included in an insurer’s network for most services while being excluded for services covered by centers-of-excellence contracts. However, fears of adverse publicity may make providers reluctant to invoke these clauses against high-profile self-insured employers.

Reference pricing and centers-of-excellence contracting exert their influence on cost primarily by reducing the average price of tests and treatments, not by reducing utilization. They do not focus on the difficult question of whether a particular intervention is appropriate but, rather, on where that intervention should take place. Centers-of-excellence contracting can incorporate some elements of appropriateness review, but this is not the primary target of the strategy.

Reference pricing and centers-of-excellence contracting may exert long-term impact on appropriateness to the extent that they raise awareness among consumers concerning variability in price and quality. One goal of reference pricing has been to change the culture of medical care, transforming the consumer from a passive recipient of a provider’s advice into a price-conscious shopper for clinical services.

Some employers choose to focus on price differences rather than on differences in the appropriateness of providers’ practice patterns because the latter is a more sensitive issue. These employers hope that consumers who learn to shop on the basis of price will, over time, become better shoppers with respect to appropriateness.

And some employers begin with low-cost but high-volume drugs and laboratory tests, rather than with high-cost but less frequently used inpatient procedures. The goal in these cases is to ensure that many employees are involved in the program.

**Examples Of The Two Strategies**

Reference pricing and centers-of-excellence contracting have only limited presence in the contemporary health insurance market, which still relies largely on deductibles, copayments, and coinsurance as patient incentives. However, a variety of applications have been developed by leading health plans and employers, focusing on services and products for which there is meaningful variability in price but only limited variability in quality, or for which quality variability is well measured.

**REFERENCE PRICING FOR ORTHOPEDIC SURGERY**

The California Public Employees’ Retire-ment System (CalPERS) provides health coverage for 1.3 million employees, dependents, and retirees of the State of California and various public entities within the state, such as school districts and municipalities. The system offers three insurance options, including a set of self-funded preferred provider organizations managed by Anthem Blue Cross, a network health maintenance organization managed by Blue Shield of California, and a group-model health maintenance organization offered by Kaiser Permanente. Some public entities are turning to high-deductible health plans, but CalPERS has searched for mechanisms that limit its health care cost growth while retaining low consumer cost sharing.

Faced with hospital consolidation and price escalation in its core regions, CalPERS developed with Anthem Blue Cross a reference-pricing design for knee and hip replacement surgery. These common procedures are expensive but relatively standardized, and the variation in hospital prices for them is not principally the result of variation in patient case-mix severity. The system is now extending reference pricing to a variety of ambulatory surgical procedures.

Exhibit 1 presents the distribution of hospital prices (allowed charges) for knee and hip replacement surgery paid by CalPERS under its self-insured preferred provider organization (administered by Anthem) across the hospitals in the state. After cost and quality reviews, the system adopted a reference price limit of $30,000 for the hospital component of these procedures—a payment limit that exceeded the prices charged by approximately two-thirds of the hospitals and was below the prices charged by the other hospitals in the preferred provider organization network. After assessing various metrics of quality and patient satisfaction, Anthem designated forty-seven hospitals as “value-based purchasing centers,” indicating that they charged less than $30,000 for joint replacement and were acceptable on quality grounds.

Under the reference-pricing structure, CalPERS enrollees who chose a hospital designated as a value-based purchasing center would be responsible for coinsurance of 10 percent of the allowed charge, for a maximum exposure of $3,000. Enrollees who chose a hospital not on the list of value-based purchasing centers would be responsible for 10 percent of the allowed charge up to $30,000, plus the full difference between the actual allowed charge and the $30,000 reference price limit. For example, an enrollee who chose a hospital that charged $50,000 would pay $23,000 out of pocket.

**REFERENCE PRICING FOR IMAGING AND LABORATORY TESTS**

Safeway is a national chain...
of grocery stores with 22,000 employees and 20,000 dependents in its self-insured preferred provider organization plan, in addition to 150,000 unionized employees in separate health plans. The firm’s philosophy is that its employees should regard health care services in the same manner that they regard other important shopping decisions: weighing price and quality and taking advantage of value opportunities. Safeway has been moving from comprehensive benefits toward a consumer-driven health benefit design, with a $1,200 annual deductible for individuals, 20 percent coinsurance, and an expanding set of services subject to reference pricing.

Safeway’s interest in reference pricing for imaging was stimulated by an analysis of claims data that revealed up to tenfold variations in unit prices for colonoscopies within a regional market. In 2009 the firm established a pilot program in that market. The program had a benefit limit of $1,500 for colonoscopy except in cases of emergency or complications, covering the facility fee but not the physician’s clinical fee. Physicians were paid according to a uniform fee schedule without substantial variation across facilities. Payments by employees above this limit were not reimbursed by the firm and did not count toward the employee’s deductible or annual out-of-pocket maximum.

Safeway distributed to its employees a list of all facilities that charged less than the $1,500 limit and another list of the physicians who used these facilities. The initiative was extended to the firm’s employees elsewhere in the nation in April 2010, with the reference price limit reduced to $1,250.

Exhibit 2 illustrates the price variation that motivated Safeway to move to reference pricing—for example, a range of $848–$5,984 in San Francisco. Even broader variations in unit prices within some markets were found for ambulatory procedures such as knee arthroscopy, hernia repair, gall bladder removal, and cardiac catheterization without angioplasty.

Safeway has extended reference pricing to routine laboratory tests, which individually cost little but which cumulatively impose sizable burdens on the health benefits program. The firm

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**Exhibit 1**

Range in Average Price Per Procedure Across California Hospitals for California Public Employees’ Retirement System (CalPERS) Patients Undergoing Knee or Hip Replacement, 2009

**Source** California Public Employees’ Retirement System.

**Exhibit 2**

Range of Prices for Colonoscopy Per Procedure Paid by Safeway in Three Markets, 2009

**Source** Safeway Health. **Note** Safeway set a reference price of $1,250 per procedure in 2010.
pays for 350,000 laboratory tests per year. In the case of 100,000 of these, it believes that consumers have the time and capability to choose among alternative providers based on price.

Of the 847 laboratory Current Procedural Terminology codes covered by Safeway’s benefit plan, 451 have been subject to reference pricing with a maximum allowable payment. Employees who select higher-priced laboratories must pay the difference in price out of pocket. The reference-price limit varies for each test, but it is targeted at the sixtieth percentile in the distribution of charges for the test across the network of laboratories used by Safeway employees.

**Centers of Excellence for Major Cardiac Procedures** Lowe’s is a national chain of 1,750 home improvement centers with 200,000 employees, dependents, and retirees covered under its health benefits program. Approximately 17,000 covered beneficiaries have chosen health maintenance organization coverage, but most are covered by Lowe’s self-insured preferred provider organization plan. Lowe’s was concerned about the wide variation in prices, complications, and readmissions for similar procedures across the numerous hospitals where its beneficiaries sought care. In April 2010 the firm launched a centers-of-excellence program for nonemergency cardiac procedures, including angioplasty, bypass surgery, and valve replacement.

Lowe’s decided to select a single provider organization for its national centers of excellence for cardiac procedures. After an extensive analysis of major systems, the firm developed a contractual relationship with the Cleveland Clinic. The Cleveland Clinic has a strong reputation for quality but is in a regional market that is not growing. Hence, it was willing to offer attractive prices to obtain patients from out of the area. Lowe’s initially considered international medical travel but decided that its employees would be more comfortable with a well-recognized domestic provider.

The Lowe’s centers-of-excellence benefit is offered to beneficiaries as a supplemental benefit and is not mandatory. The basic benefit design for Lowe’s preferred provider organization plan for an individual is a $500 deductible followed by 20 percent coinsurance, up to an annual $4,000 out-of-pocket maximum. For a family, the deductible is $1,000, and the out-of-pocket maximum $8,000 annually.

Beneficiaries who elect to obtain a cardiac procedure outside the Cleveland Clinic remain subject to these cost-sharing provisions. Enrollees willing to use the Cleveland Clinic face no cost sharing for their cardiac procedure and, moreover, are reimbursed for their travel costs and those of a companion.

All patients who are referred for surgery and elect to use the Cleveland Clinic are evaluated for the appropriateness of the procedure. Last year two cardiac surgery candidates were instructed by Cleveland Clinic physicians that surgery was not appropriate for their condition and that they should continue with medical management. Lowe’s relationship with the Cleveland Clinic is expanding from cardiac care to spine procedures and care for back pain. If surgery is unlikely to offer relief, the centers-of-excellence arrangement offers patients a several-week pain management course of care.

**Centers of Excellence for Orthopedic Surgery** The same variation in knee and hip replacement prices that motivated CalPERS to pursue reference pricing for its preferred provider organization products led it to pursue a centers-of-excellence strategy for its health maintenance organization product, administered by Blue Shield of California.

In developing its centers-of-excellence network for CalPERS, Blue Shield began with the fifty-seven hospitals in California that had passed the clinical criteria to be designated as “Blue Distinction” facilities for orthopedic surgery by the national BlueCross BlueShield Association. It divided the state into nine geographic markets and proposed to CalPERS a single center-of-excellence facility for each market. After some discussion concerning travel times, the system decided to designate a total of sixteen facilities as centers of excellence for joint replacement. Patients who live more than fifty miles from a designated center are reimbursed for travel expenses.

In contrast to the Lowe’s program, the Blue Shield–designated centers of excellence are the exclusive option for health maintenance organization enrollees. CalPERS does not cover the costs of the procedure at other hospitals. This is consistent with the narrow-network approach used by health maintenance organization products in California. For example, beneficiaries of the system who select the Kaiser Permanente health maintenance organization option are covered only for services provided at Kaiser facilities, except in emergencies.

**Balancing Price And Quality**

There is no consistent relationship between price and quality across providers of similar health care services. Some providers offer high quality at high price; others offer high quality at low price; and still others offer low quality at a range of prices. Employers can focus on high-quality providers and then seek to channel em-
employees to low-priced facilities within that subset. Alternatively, they can focus on low-priced providers with the proviso that they exceed quality thresholds. The first approach, embodied in centers-of-excellence contracting, gives the greater share of responsibility for assessing price and quality to the employer; the second, embodied in reference pricing, gives the greater share of responsibility to the employee.

The different approaches to quality embodied in reference pricing and centers-of-excellence contracting are illustrated by contrasting the preferred provider organization and health maintenance organization strategies used for orthopedic joint replacement by CalPERS. Of the 120 hospitals in California that provide knee and hip replacement surgery to the system’s beneficiaries, 57 are designated as Blue Distinction facilities by the BlueCross BlueShield Association based on process and outcome measures of quality, 47 are designated as value-based purchasing centers by Anthem Blue Cross for the preferred provider organization, and 16 are designated as centers of excellence by Blue Shield for the health maintenance organization.6

There is considerable overlap among these designations, as well as important differences. These differences indicate that the preferred hospital designations that are developed by reference pricing and centers-of-excellence benefit designs reflect health plans’ and hospitals’ negotiating leverage. Although publicly available quality data are relevant, the variability in price is driven by strategic initiatives at both the health plan and provider level. Hospitals that offer high quality but are not chosen as preferred facilities might not have been willing to match the price discounts offered by competitors or might be adjacent to a preferred facility and hence not needed by the health plan for geographic accessibility.

The sixteen centers of excellence are all Blue Distinction facilities, because Blue Shield began with this definition of quality before narrowing the hospital network based on price. Of the forty-seven value-based purchasing center hospitals identified by Anthem using reference-pricing principles, however, only twenty-five are Blue Distinction facilities.

Six of the sixteen facilities designated as centers of excellence by Blue Shield are not designated as value-based purchasing centers by Anthem, while thirty-seven of the forty-seven Anthem value-based purchasing center facilities are not designated as a centers of excellence by Blue Shield. Twenty hospitals that earned Blue Distinction were not designated as a preferred facility under either the Anthem reference pricing or the Blue Shield centers-of-excellence strategy. A complete listing of these hospitals and their designations by the BlueCross BlueShield Association, Anthem, and Blue Shield appears in the online Appendix.9

It is interesting to compare the Blue Distinction, reference pricing, and centers-of-excellence designations of selected hospitals in California that have statewide prominence. Cedars Sinai, Stanford University Medical Center, and Hoag Memorial Presbyterian are designated as Blue Distinction and are favored in the reference pricing benefit by Anthem but are not included in Blue Shield’s centers of excellence. In contrast, Sharp Memorial received the BlueCross BlueShield Association’s Blue Distinction and is one of Blue Shield’s centers of excellence, but it is not a preferred hospital in the Anthem reference-pricing benefit design.

The University of California, San Francisco, Medical Center; Loma Linda University Medical Center; and Huntington Memorial capture all three designations. The University of California teaching hospitals in Los Angeles and San Diego are Blue Distinction but not preferred in either the reference-pricing or centers-of-excellence networks, while the Sutter Health hospitals in Sacramento and San Francisco have none of the three designations.

It is noteworthy that the major hospital chains have not used contract clauses against CalPERS that would prevent a payer from having any of a chain’s facilities in its network unless it accepts all of the chain’s facilities. These all-or-none contract clauses are frequently used against health plans that are not negotiating on behalf of high-profile employers and purchasing alliances.

**Benefit Design And Public Policy**

The most common cost-moderation strategy pursued by employers in recent years has centered on consumer cost sharing: 41 percent of large employers now offer high-deductible plans, and 31 percent of employees are now in plans with a deductible of $1,000 or more.2 Annual deductibles sensitize consumers to the cost of primary care. However, they have no effect on forms of care for which prices are above the deductible and the annual out-of-pocket maximum. In contrast, reference pricing and centers-of-excellence contracting target price variation among providers—even for high-price procedures that exceed the deductible and annual out-of-pocket maximum.

Reference pricing and centers-of-excellence contracting are most useful for services for which there exists substantial variation in price but only limited variation in quality, and thus in instances in which designing benefits to favor...
low-price providers cannot be painted as having the employer or insurer force the employee or insured to use a lower-quality provider. Moreover, the employers and insurers discussed in this article were careful to ensure that many hospitals with widely recognized reputations for quality were included among the preferred providers for both reference pricing and centers-of-excellence contracting.

These benefit design innovations will be tested by regulatory agencies that are responsible for enforcing state insurance benefit mandates. Reference-pricing initiatives have been pioneered by employers with self-insured health benefit programs that are exempt from state insurance regulation. CalPERS needed to obtain regulatory approval for its centers-of-excellence strategy because its health maintenance organization products are fully insured. Therefore Blue Shield needed to convince the state regulator that limiting knee and hip replacement surgery to sixteen hospitals would not pose insuperable geographic access barriers to patients.

However, the system did not need to obtain such approval for its reference-pricing initiative, because its preferred provider organization products are self-insured and exempt from regulation by the state. Self-insured health benefit programs are under the regulatory supervision of the US Department of Labor, which does not require plans to prove adequate geographic network access for patients.

In developing its reference-pricing benefit design for colonoscopy, Safeway needed to consider its relationship to the Affordable Care Act’s mandate that preventive screening tests for cancer be provided without consumer cost sharing. It decided that the benefit design was consistent with the US Department of Labor’s interpretation that cost sharing applied to some providers is acceptable if the test is available without cost sharing from other providers.

The continuing escalation in health insurance costs is driving employers to experiment with new benefit designs that increase consumers’ consciousness of cost without shifting excessive financial burdens to patients in need of care. Reference pricing targets those services that are relatively standardized and can be compared on the basis of price. Centers-of-excellence contracting, in contrast, targets services that are subject to both price and quality variation but whose quality can be ensured by relying on providers with a documented record of performance. Both approaches seek to cover essential health services while moderating the cost of using those services.

Both reference pricing and centers-of-excellence contracting can be used by Medicare Advantage health plans because they have the ability to impose differential cost-sharing requirements and exclude providers altogether from their contractual networks. However, the new benefit designs will be applicable to traditional Medicare only if the program becomes willing and able to use consumer cost sharing to channel patients to particular providers based on quality and efficiency.

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NOTES
7 In some communities, the Kaiser health plan contracts with independent hospitals for selected services, and enrollees can obtain care there. In those situations, professional services are usually provided by Kaiser Permanente physicians even though the hospital is not owned by Kaiser.
8 This count excludes the hospitals in California that are owned by Kaiser Permanente and offer joint replacement surgery. They are not included in either the Anthem or the Blue Cross network.
9 To access the Appendix, click on the Appendix link in the box to the right of the article online.
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In this month’s *Health Affairs*, James Robinson and Kimberly MacPherson write about their examination of ways in which employers and insurers are experimenting with incentives to encourage employees to make cost-conscious health care choices. The authors focus on two major new benefit design instruments—reference pricing and centers of excellence, both described fully in the article—and explore the potential role that both can play in the policy debate over appropriate coverage and cost-sharing requirements.

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