

User-Fee Financing of USDA Meat and Poultry Inspection. By James MacDonald, Fred Kuchler, Jean Buzby, Fitzroy Lee, and Lorna Aldrich. Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 775.

Abstract

USDA's Food Safety and Inspection Service (FSIS) finances about 13.5 percent of its budget outlays through user fees for overtime and unscheduled meat and poultry inspections. User fees play an increasingly important role in financing government programs, and FSIS has frequently requested expanded authority to charge user fees for more of its operations. Congress has consistently rejected the FSIS requests and has placed important restrictions on fees and the uses of fee revenue at those agencies that have been granted more extensive user fee authority. This report surveys the application of user-fees for financing meat and poultry inspection programs in other countries; reviews user-fee systems in other Federal agencies, particularly those with food and agricultural missions or regulatory responsibilities; and discusses the relevant economics literature on the use and design of user fees. Finally, we suggest several elements that should underlie the structure of user fees for meat and poultry inspection, should such a program be introduced.

Keywords: user fees, meat inspection, public finance

Contents

Executive Summary	iii
Introduction	1
Meat and Poultry Inspection User Fees in Other Countries	3
User Fees in Federal Agencies	6
Fee Structures	6
Financial Management	8
Incentive Issues	11
Economic Analysis and User Fees	16
Should Fees Aim to Finance Operations or Change Behavior?	16
The Basis for Fees	16
The Level of Fees and Information Needed to Set Them	17
The Temporal Stability of Fee Revenues	17
When Should User Fees be Chosen to Finance Operations?	17
User Fees and Allocative Efficiency	18
User Fees and Productive Efficiency	19
How Should Fees Be Set?	19
Incidence: Who Ultimately Pays for the User Fee?	20
Options for FSIS	22
Fee Structures	22
Information Requirements	22
Designing a Fee Structure	22
Financial Management	23
Incentive Concerns	24
References	25
Appendix 1: Glossary of Abbreviations	26
Appendix 2: Individual Country Experiences with User Fees	27

Executive Summary

User fees play an increasingly important role in financing government programs. Federal user fees accounted for 12 percent of all Federal revenues collected in fiscal year 1996. USDA's Food Safety and Inspection Service (FSIS) raised \$85 million through user fees for overtime meat inspections and unscheduled meat and poultry inspections in FY 1996, about 13.5 percent of total FSIS outlays.

FSIS has frequently requested expanded authority to charge user fees for its operations, but Congress has consistently rejected the requests, despite approving expanded user-fee authority for other Federal agencies. Agencies that do have more extensive user-fee authority, nevertheless, have important restrictions placed on fees and on the uses to which fee revenue can be put. In this environment, the Economic Research Service (ERS) investigated the use of user fees for the finance of meat and poultry inspection. In particular, ERS aimed to do the following: survey the application of user fees for financing meat and poultry inspection programs in other countries; survey user-fee systems in other Federal agencies, particularly those with food and agricultural missions or regulatory responsibilities; and review the relevant economics literature on the use and design of user fees.

ERS obtained information on 22 countries—the 15 members of the European Community (EC) as well as Argentina, Australia, Canada, Japan, Korea, Mexico, and New Zealand—concerning the financing of meat and poultry inspection in each. Twenty-one rely on user fees for at least some funding for government meat inspection. Some rely on a combination of public funds and user fees, systems that resemble the current system in the United States. Others, including all EC member states, finance all of the costs of live animal and meat inspections through user fees paid by inspected establishments.

Many Federal agencies now rely on user fees for at least some funding, and new or revised user fees now finance USDA inspections of imported food and agricultural products and exported grain and rice shipments, FDA review of new drug applications, and most activities of the U.S. Customs Service, the Federal Communications Commission, and the Nuclear Regulatory Commission.

Some inspection agencies base their user fees on hourly charges for inspectors' time. The hourly charges can vary with the skills required for a task and according to the time of inspection and the volume of inspection services to which a firm commits. Charges can also be based on measurable outputs, rather than inputs. In some EC countries, fees for slaughter inspection are assessed not on the basis of inspector hours, but on the basis of inspected carcasses. U.S. inspection agencies also often perform lab tests and other analytical services in addition to inspections, and they charge specific fees for each of those services.

Agencies can match charges to actual costs of providing services. Higher weekend and overtime rates reflect the wages paid to inspectors for overtime and weekend work. Some types of services may require more skilled, and therefore more highly paid, inspectors. Firms that can commit to the use of full-time inspector services impose lower costs of travel and inspector downtime on agencies. By offering rates that reflect costs, agencies provide firms with incentives to choose lower cost services; thus the fee structure can provide agencies with ways to manage costs.

Agencies may have significant components of overhead costs that arise from developing standards, performing research, managing inspection and review, and using Departmental support. Overhead may be paid for out of general tax revenues, but it is frequently recovered through user fees. Firms may be charged for overhead in direct proportion to their use of inspection hours, but overhead may also be recovered through volume charges, assessed in direct proportion to the firms' volume of output, rather than to their use of inspection services.

Advantages and Disadvantages of Financing Through User Fees

Before choosing a structure for user fees, the FSIS should consider four issues to decide if user fees are an appropriate option for financing government activities.

1. Programs should be easy to administer. User fees generate administrative costs for tracking detailed program costs, managing revenue flows, and adjusting fees

over time. Fees also create policy issues, and managers frequently devote considerable time to fee issues as they are raised by Congress and by fee payers. The process of collecting fees also creates compliance costs for direct users, as each must now make, record, and review payment. Compliance and administrative costs will substantially exceed any administrative savings realized through reduced support from general revenues because the system for administering and paying for general revenues remains in place. Administrative and compliance costs will be larger the more complex is the regulatory environment and the more diverse are the regulated entities.

2. User fees can lead to more effective agency management. Administration of a fee system can generate new information relating detailed program costs to regulatory activities and to program outcomes. Improved information can allow program managers to operate more effectively by allocating resources to their most productive uses and by identifying reasons for unusual cost overruns. Moreover, if firms have some choice among inspection alternatives (such as overtime vs. regular time, or contract vs. intermittent service), then fees that reflect an agency's true cost of services can provide firms with incentives to use agency resources carefully, thus indirectly conserving those resources. Fees are more likely to improve agency effectiveness if fee collection generates new sources of information, if agencies carry out a wide variety of activities on a diverse mix of plants, if fees are based on costs, if fee revenues actually fund agency programs, and if firms can choose among a variety of services or regulatory options.

3. Fees can lead to more stable financing of essential services. Interest in user-fee financing frequently arises from concerns that general revenue financing can lead to underfunding of some activities whose benefits clearly exceed costs. User fees on regulated entities are often seen as a feasible alternative because the regulated firms are easily identified, they may have limited opportunities to avoid paying fees, and they may prefer paying fees to the alternative of receiving poorly funded and poorly delivered services. But user-fee financing will not always be more stable. As a technical matter, financial stability requires fees whose bases vary with inspection costs. For example, Animal and Plant Health Inspection Service (APHIS) revenues from cattle inspection can vary sharply with transborder cattle flows, even while inspection costs do not. As a practical matter, fees can create coalitions among fee payers, who may work to shift fee payments to other payers.

4. Fees can ensure that the right amounts of inspection services are used. Users compare a fee to the benefits that they receive and use a government service only as long as benefits to them exceed the fees. The fees then provide a market test for government services—agencies will provide the services only as long as the benefits to society outweigh costs.

Fees provide an accurate market test only if they actually do reflect the costs of providing services and if the benefits flow largely to those paying the fees. In the case of meat and poultry inspection, processors would pay the fees, but most of the food safety benefits flow to ultimate consumers. Consequently, processors would compare the costs to only their part of the benefits (ignoring benefits to the public at large) and generally would be expected to purchase too little of the inspection service. Fees would, therefore, lead to underprovision of inspection services.

However, this primary economic criterion for evaluating user fees may be irrelevant for meat and poultry inspection. Because inspection is mandated, the demand for inspection is unlikely to be affected by its price (the fee), and the imposition of fees would not affect the level of inspection provided. If fees do not affect the demand for the service, then charging fees can have no positive or negative impact on the appropriate level of service.

User-Fee Design: Financial Management

Three issues of financial management arise when agencies try to design user fees. Each can be negotiated at the time a program is designed, and each can affect program performance.

1. Fee systems operate under a variety of spending authorities. Agencies need to be aware of the ways in which Congress, Office of Management and Budget (OMB), the Treasury, and an agency's Department can constrain how an agency collects and spends fee revenues.

2. Agencies must allow for reserve funds because revenues may not match expenditures through the year. Fees may all be paid during a statutorily designated payment month, while costs are incurred throughout a year. Agencies may also need start-up funds because initial revenue flows are modest or because fee systems are introduced gradually. Moreover, agencies shifting to user fees frequently retain significant accrued liabilities

(such as employee benefits) from earlier periods. Finally, revenue flows may fall short of expectations because of recessions or other shortfalls in activity. In each case, agencies will need to build reserve balances, either through a fee schedule that provides an excess of revenues over costs in some periods or via appropriations from Congress. The latter option is probably more desirable in those cases in which agencies retain significant accrued liabilities when they shift to user fees.

3. Agencies need to design ways to adjust fee schedules to account for inflation, productivity growth, and changes in workload. Some statutes mandate fees that can be adjusted only through Acts of Congress. In other cases fee adjustments are designed into the statute. Some adjustments are based on the rulemaking process. Because some methods are far more difficult than others, agencies should seek authorizing legislation that establishes effective and flexible fee adjustment mechanisms.

Designing Structures for User-Fee Programs

European Community directives require member states to base user fees on the costs incurred at inspected establishments, and the basic U.S. statutes underlying user fees oblige agencies to base fees on costs. Costs can be difficult to measure, particularly at the level of specific regulatory activities, and the attribution of overhead costs to activities can be arbitrary. ERS believes that three strong reasons support establishing fees that are based on costs.

1. Agencies can better balance revenues and expenses through time if fees are based on costs. Agency workloads can change, as some tasks take on greater importance. If fees do not reflect costs, then as underpriced tasks grow in importance, the agency will find that the costs associated with those tasks grow more rapidly than the resources available for doing them. The result will be poor agency performance, a drawdown of financial reserves, or a request to Congress for an emergency appropriation. Most likely, all three will result.

2. Fees based on costs provide more efficient use of agency resources. Improved information can allow program managers to operate agencies more effectively; but the system will generate useful new cost information only if fees are based on costs. Cost-based fees can also affect agency efficiency indirectly by leading users to reorganize their consumption of inspection resources in ways that reduce inspection costs.

3. Cost-based user fees may limit political gaming by regulated firms. If agencies establish fee systems based on costs, they can more easily rebut charges of arbitrary decisionmaking made by regulated entities. They can also force interest groups to offer cost-based justification for their own alternative proposals. Such a rule will allow the agency to limit its own expenditure of management resources in debates over fee structures.

User-Fee Financing of USDA Meat and Poultry Inspection

James MacDonald, Fred Kuchler,
Jean Buzby, Fitzroy Lee,
and Lorna Aldrich

Chapter 1 Introduction

User fees, charges that individuals or firms pay for services received from the Federal Government, are playing an increasingly important role in financing Federal programs. In fiscal year 1996, Federal user fees accounted for 12 percent of all Federal revenues collected (Sperry, 1998). During FY 1996, the USDA's Food Safety and Inspection Service (FSIS) raised \$85 million—about 13.5 percent of total FSIS outlays—through user fees collected for overtime inspections. But FSIS and other agencies must obtain permission from Congress to collect user fees, and Congress may place specific restrictions on agencies that charge user fees.

User fees can be established in two ways.¹ General user-fee authority was established under title V of the Independent Office Appropriations Act (IOAA) of 1952.² The IOAA gave agencies broad authority to assess user fees or charges on identifiable beneficiaries by administrative regulation. Since the Act does not authorize agencies to retain and/or use the fees that they collect, fee revenues raised under IOAA must, in the absence of specific authorizing legislation, be deposited in the U.S. Treasury general fund. Authority to assess user fees may also be granted to agencies through the enactment of specific authorizing or appropriations leg-

islation, which may or may not authorize agencies to use or retain the fees that they collect.

Although FSIS has the authority to charge for overtime inspections in Federally inspected meat and poultry slaughter and processing establishments, Congress denied the agency's requests for authority to charge user fees for all meat and poultry inspections (not just for overtime) in its annual budget submissions to Congress in 1998 and in 1986, 1987, and 1988. From 1994 through 1997, the agency requested authority to charge user fees for inspections beyond a single scheduled and approved shift each day (large slaughter plants typically schedule two shifts per day). In the FY1999 budget request, FSIS asked for authority to charge user fees for all operations, except for FSIS funding of State inspections.³ Congress denied each request. The FSIS experience is not unique. The Food and Drug Administration (FDA) included requests for user-fee authority in budget submissions for over a decade before Congress granted the authority to collect fees for new drug applications in 1992 legislation.

Although the IOAA provides general guidance to agencies, it is not specific enough to determine the appropriateness or amount of a user fee in a given situation. The Federal Circuit Court of Appeals for the District of Columbia has interpreted the IOAA to mean that if a government service provides an independent public

¹Our discussion here draws on the General Accounting Office report, *Food Related Services: Opportunities Exist to Recover Costs by Charging Beneficiaries* (GAO: Washington, DC, March 1997).

²A complete list of abbreviations is provided in Appendix 1 at the end of this report.

³Plants that sell in interstate commerce must be Federally inspected, while those that sell within States can be inspected by State agencies.

benefit, then no user fee should be charged for that portion of the benefit. But according to the latest (1993) guidance from the Office of Management and Budget (OMB), if private firms or individuals receive the primary benefits from a government service and the public benefits are incidental, then user fees could be charged to the private beneficiaries for the full costs of providing the service. Those fees would be deposited in the Treasury's general fund.

Because the IOAA, the Court, and the OMB guidance do not define the terms “independent,” “primary,” or “incidental,” interpretations of these criteria often conflict, with different agencies applying the criteria in different ways. Moreover, the growth of user-fee propos-

als, programs, and revenues, set against frequent Congressional resistance to requests for user-fee authority in budget submissions suggests that there is an unsettled framework for deciding when to rely on user fees and how to apply them.

This USDA Economic Research Service (ERS) report: covers the application of user fees for financing meat inspection programs in other countries; looks at user-fee systems in other Federal agencies, particularly those with food and agricultural missions or regulatory responsibilities; reviews the relevant economics literature on user fees; and summarizes the options for food safety agencies to consider when designing and implementing a program of user fees.

Chapter 2

Meat and Poultry Inspection User Fees in Other Countries

ERS, with the cooperation of the International Policy Division of FSIS, obtained information from 22 countries about their experience with user fees for meat and poultry inspection systems. We aimed to determine the sources of finances for inspection activities, the precise activities, if any, that are financed through user fees, the bases for establishing fees (some alternatives are carcasses, inspector hours, pounds or value of inspected meat, and fixed annual fees), and fee structures, such as whether a country combined a fixed registration fee with an hourly charge for an inspector's time. ERS was also interested in which types of plants—slaughter and processing, export and domestic, large and small—were charged fees.

We surveyed officials in 10 countries: Argentina, Australia, Canada, Denmark, Germany, Great Britain, Japan, Korea, Mexico, and New Zealand. Some of the 10 were known to have user-fee systems, while others were important trading partners or had large meat sectors. European Community (EC) respondents alerted us to EC-wide user-fee rules that also apply to 12 EC nations that were not part of the original survey, bringing the total surveyed to 22 countries.⁴

ERS sent questions to agricultural attaches at U.S. embassies or, when possible, directly to relevant inspection agency officers. When we received their initial answers, we generally sent an additional set of clarifying questions. Because of the impersonal and distant format, survey questions had to be precise and brief.

We received direct responses from eight of the countries (all except Canada and Germany, which is covered under EC rules). We had information for Canada from a previous report (FSIS, 1996) and obtained supplemental information from the Internet web sites maintained by some agencies and by international organizations. Table 1 summarizes our findings, while Appendix 2 provides country-specific information.

⁴In addition to Denmark, Germany, and the United Kingdom, EC member countries include Austria, Belgium, Finland, France, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, and Sweden.

Nine of the 10 surveyed countries (all except Korea) rely on user fees for at least some funding for government meat and poultry inspection. In some countries, such as Canada, Japan, and Mexico, inspection is financed by a combination of public funds and user fees. This arrangement resembles the current system in the United States, where user fees (for overtime) finance about 13.5 percent of FSIS outlays. In other countries, such as New Zealand, user fees fund all inspection costs, including products produced for both the domestic and export markets, as well as operations in slaughter establishments and in processing establishments. In New Zealand, user fees also cover the indirect costs of the inspection system, costs such as negotiating with importing countries, setting standards, auditing compliance, and contributions to the overhead costs of the Ministry of Agriculture.

The responses from Denmark and the United Kingdom indicate that all EC member states must ensure that live animal and meat and poultry inspections are fully financed through user fees paid by the inspected establishments. Additional EC directives aim to harmonize fees and inspection procedures among the 15 member countries. These steps attempt to constrain member states from using inspection rules and financing strategies in ways that would restrain trade or protect domestic firms.

Most countries aim to base fees on costs actually incurred in inspecting meat processing establishments. The EC directive (85/73/EEC) obliges members to recoup costs through a standard charge per animal or through a charge based on actual expenses, such as inspector hours. In Great Britain, costs for slaughter inspection are based on carcass charges. Denmark bases fees on actual costs incurred. In either case, total charges will be broadly consonant with the costs of providing inspection services to an establishment.

Several other countries follow EC practice. In Argentina, 67.5 percent of the National Service of Animal Health's (SENASA) annual income comes from slaughter fees that are assessed on a per carcass basis (e.g., US \$1.85 per head slaughtered bovine, \$1.37 per slaughtered hog, and \$0.013 per slaughtered chicken or

Table 1—Foreign country experiences with user fees for meat and poultry inspection

Country	How is meat inspection financed?	How are user fees assessed?	Are inspectors present at all times? When are inspectors present?
Argentina	User fees	Fees are assessed for slaughtered animal by specie plus additional fees for volume of production of certain activities and for paperwork etc.	Yes, present at all times during the slaughter process.
Australia	User fees	For the domestic sector, registration fees. For the export sector, a more complex charging regime.	Yes, during slaughter operations in all export abattoirs but not necessarily during processing operations.
Canada	User fees	Based on an hourly rate for overtime and set fees for the other categories.	No information provided.
Denmark	User fees	Based on actual expenses for production in both domestic and export markets.	Yes, present at all times during meat and poultry slaughter and processing operations.
Germany	User fees	No information provided.	No information provided.
Great Britain	User fees	Assessed per animal, or by charging actual costs. Additional charges are also assessed.	No specific response to this question.
Japan	Public funds and user fees	Fees cover expenses incurred by testing materials and overhead. The Government of Japan sets the upper ceiling for the fee.	Inspections are carried out during operating hours of the plant.
Korea	Public funds only	Not applicable.	No information provided.
Mexico	Public funds and user fees	Fees for veterinarians are based on official minimum salary.	Inspectors remain in establishments during operations.
New Zealand	User fees	There is a complex budgeting and costing process.	Mixed requirement for the presence of inspector depending on product (meat or poultry) and destination of product (domestic or export markets).

Source: ERS/FSIS Survey of Meat Inspection Agencies

hen), while 32.5 percent comes from fees on processing activities and products such as deboning, cold cut elaboration, cooked meat, offal, and tinned meat, where fees are based on the volume of production. Canadian user fees are based on an hourly rate for overtime and set fees for the other categories. In Australia, annual registration fees cover the indirect expenses (standard setting, compliance, negotiations), while hourly charges finance inspection costs.

Most countries reported that inspectors are present at all times during slaughter operations. However, the Danish

Veterinary and Food Administration expects that with the implementation of approved own-check programs (that is, packer responsibility for inspection, with government audit) based on the Hazard Analysis and Critical Control Points (HACCP) system, the requirements for the permanent presence of government inspectors will be relaxed and adjusted according to the approved own-checks programs, the product range, and the volume of production of the individual establishments. Government inspectors would, however, still be required to visit Danish establishments at least once each day.

Chapter 3

User Fees in Federal Agencies

Many Federal agencies now rely on user fees for at least some funding, and the importance of user fees as a source of funding has grown sharply in recent years. Table 2 (p. 13) lists 21 relevant agencies that rely on user fees; some are concerned with food or agricultural products, some manage natural resources, and others are regulatory agencies (FSIS has regulatory responsibilities in the food and agricultural sector). User fees support at least 80 percent of agency outlays at 9 of the agencies and account for minor shares of outlays (less than 20 percent) at only 3—in those cases, user fees finance precisely defined operations that are a small part of large agencies.

Our survey of user fees at Federal agencies relies on two sources of information. First, we used the Internet to gather a large amount of published information on agency user fees, relying on agency web sites and on General Accounting Office (GAO) reports (posted at GAO and Government Printing Office (GPO) sites). Second, we interviewed financial officers at the six agencies listed in table 3 (p. 14): the Agricultural Marketing Service (AMS), the Animal and Plant Health Inspection Service (APHIS), the Food and Drug Administration (FDA), the Grain Inspection Packers and Stockyards Administration (GIPSA), the National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administration (NOAA), and the Nuclear Regulatory Commission (NRC).

We emphasize three facets of user-fee systems: the structure of fees, financial management of fee revenues, and efforts to control the incentive effects of specific fees.

Fee Structures

Federal agencies rely on a wide variety of fee structures. They choose different fee structures because of differences in the nature of agency functions and costs, differing concerns over the disincentive effects of particular fees, and differing relationships with relevant industries. We summarize fee structures below, using three generic elements: 1) fees based on agency inputs, like inspector hours; 2) fees based on distinct actions by the payer, such as filing an application, purchasing an international airline ticket, or requesting a test; 3) fees

based on characteristics of the payer, such as the firm's size. Some fee systems are based on combinations of these elements, while some rely on only one.

The Federal Grain Inspection Service of GIPSA uses a combination of fees (table 4, p. 15). There are three categories of charges—hourly fees that finance the direct costs of inspection and weighing services, listed in panel 1; fees charged for the materials and equipment used for specific tests and weighings, in panel 2; and, in panel 3, a set of annual fees designed to finance agency overhead costs. Hourly charges for inspection and weighing vary with the time of day, and they are higher for weekends, holidays, and overtime. Hourly charges also vary with the length of a contract: firms that commit to a specified number of inspection hours pay lower rates than firms that call for inspection services on demand (noncontract). The agency also recovers materials costs for tests separately, while labor costs for testing are recovered through the hourly charges. Finally, GIPSA recovers overhead costs through a per-ton charge on elevator volumes. The agency sets fees on a sliding scale: charges range from 9 cents per ton for the first million metric tons of grain exported by an elevator, to 8.2 cents per ton for the next 500,000 tons, and then steadily fall to 0.2 cent per ton for amounts in excess of 7 million tons.

Hourly Inspection Charges

Agencies with inspection and grading responsibilities, such as GIPSA, AMS (product grading), NMFS (seafood inspection), FSIS (overtime inspection hours), APHIS (overtime inspection hours), and the NRC (reactor inspections), often base at least some of their user fees on hourly charges for inspectors' time. Inspector hours are easy to measure, and hourly charges match fees to the decisions taken by fee payers and to the costs imposed on agencies by those decisions. Most agencies attempt to base hourly charges on “full inspector costs,” including benefits, travel and downtime, and supervisory expenses.

Hourly fees often vary with the nature of the service, the time that it is provided, and the location where it is provided (table 4). Overtime charges, for example, are higher, as are weekend charges. NMFS charges higher

fees in Alaska, in response to higher costs of doing business. Firms also pay different hourly fees to NMFS, depending on the type of inspection service, such as HACCP or non-HACCP, in-plant inspection, lot inspection, or consultation.⁵ Finally, GIPSA, AMS, and NMFS offer lower hourly rates for contract services provided to firms that commit to pay for guaranteed volumes of inspection services. A typical contract would offer a lower hourly rate if the firm commits to 40 hours per week of an inspector's services.

Varying rates allow agencies to more closely match charges to actual costs of providing services. Clearly, agencies will have to pay higher wages to inspectors for overtime and weekend work, and they may have to pay some location differentials. Some types of services may require more skilled, and therefore more highly paid, inspectors. Firms that commit to full-time inspector services impose lower costs of travel and inspector downtime on agencies. By offering rates that more closely reflect costs, agencies can also provide firms with incentives to choose lower cost services. The fee structure can therefore provide agencies with a way to manage costs. But to offer a varying hourly-rate structure, agencies will need to develop detailed information on the costs to the agency of providing different services.

Hourly charges are sometimes based upon the actual hours that an inspector spends at a plant and are sometimes based upon the agency's estimate of the hours required to complete a particular inspection task. For example, the NRC bases charges for each inspection for major types of licensees (reactors and fuel cycle facilities) on actual hours spent on the inspection, while it bases charges for materials licensee inspections on the average inspection hours for a given type of materials license. The average inspection cost is included in annual fees assessed to the various categories of materials licensees. The former approach gives major licensees a financial incentive to improve performance because inspections are performance based. However, licensees may dispute the fees assessed because they believe the number of hours or number of inspectors is excessive. There may be pressure for the agency to reduce the frequency of inspections or the number of inspectors assigned.

⁵HACCP (Hazard Analysis and Critical Control Points) refers to methods of scientific quality control; HACCP plans require different oversight techniques from Federal inspectors.

The NRC experience may be instructive for FSIS. Charges that are based on actual hours are easy to measure but can create conflicts between individual inspectors and plant managers, especially at small plants that are not under 40-hour contracts. At small plants, managers know that each additional inspection hour adds to the user fee, and they may frequently complain directly to the inspector or to supervisors. Inspectors may know plant managers well and may feel pressure to help them reduce their inspection charges.

Some observers believe inspectors whose salaries are paid by the inspected may no longer be objective protectors of public health. But by basing charges on the average number of hours required for a task, FSIS can remove such conflict by removing the link between individual inspector actions and the fee charged to the firm. This process would require the agency to develop detailed and accurate data linking typical inspection hours to a set of well-defined tasks.

Specific Fixed Charges for Tasks

The charges described above base fees on easily measurable agency inputs—inspector hours. Charges can also be based on easily measurable outputs—tasks performed by the agency. NMFS, APHIS, GIPSA, and AMS often perform lab tests and other analytical services, and they charge specific fees for each service. In some cases (see GIPSA, table 4), the fees cover only the costs of materials and equipment associated with the tests, while in other cases, the test fees are designed to recover costs of laboratory hours and of shipping. To develop accurate fees and to defend those fees against political and legal challenges, agencies whose fees vary with the type of test need to develop cost accounting information that shows how costs vary with the type of test.⁶ If fees for an activity do not accurately reflect costs for services, then if that activity expands, agency costs will grow as the agency assigns more resources to the activity. Revenues, however, will not grow as rapidly, and the agency will find itself with deficits and a potential financial crisis.

At some agencies, inspections are discrete events, set off by the arrival of a group of items to be inspected. For example, APHIS inspections of imported food and agricultural products occur when a shipment arrives at

⁶The IOAA requires that user fees be “cost-based,” and legal challenges to individual fees frequently allege that the agency has not justified the fees by tying them to cost data.

an entry point. A significant part of APHIS user-fee revenues is based on a fixed per-passenger fee on international air travel; these fees recover the costs of inspection and quarantine of international passengers and their baggage. APHIS also charges separate user fees for inspection and clearance of international aircraft and their cargo, and for inspection and clearance of ships, trucks, and their cargo in international transit. APHIS Veterinary Service fees are charged on incoming loads of imported live animals, whose arrival triggers inspection actions that differ from aircraft, ship, or truck inspections. These fees are based on an action—inspection of cargo, luggage, and carrier—rather than being directly based on inspector hours. An agency that wishes to develop this type of system must develop a costing system that allows the agency to link labor and management hours, materials, and capital to different types of inspection tasks if the agency hopes to develop accurate fees that can withstand political and legal challenges and that can be adjusted with changes in regulatory activities.

At other agencies, regulatory actions and the costs that the actions generate are initiated by filings. For example, filing a New Drug Application with the FDA leads to the substantial commitment of FDA resources for review. Similarly, when a firm files for patent or trademark protection at the Patent and Trademark Office or when a firm files for copyright protection at the Library of Congress, those actions generate expenditures because the regulatory agencies review the applications. These costs are recovered through application fees. The NRC licenses nuclear reactors and facilities, such as hospitals, irradiators, and radiographers, that use nuclear materials as part of their operations. The agency recovers the costs of license review through license fees. For those agencies, fee structures should, in principle, reflect differences in the costs imposed by different types of filings. Because application fees can, in some cases, be quite large, those agencies often aim to structure fees to avoid disincentive problems.

Charges for Overhead Recovery

Agencies may have significant components of overhead costs that are not directly caused by specific inspection or review actions. These can include costs of developing standards, performing research, managing inspection and review, and Departmental support for the agency. They can also include costs for inspection and review actions whose user fees are set below the costs of providing services, and can include pension and health benefits. Some of these costs may be paid for out

of general tax revenues. For example, GIPSA costs for development of standards and testing methods, and for compliance, are not recovered through that agency's user fees. In other cases, overhead costs must be recovered through user-fee charges, and agencies have developed a variety of ways to do so.

In some cases, overhead costs are recovered by adding overhead expenses to hourly inspection charges. AMS takes this approach when setting fees for beef-grading services, by charging a firm for overhead in direct proportion to its use of grading hours. But AMS takes a different approach for its poultry-grading services. AMS covers overhead charges through a charge on the volume of graded poultry; poultry producers, therefore, pay for overhead in direct proportion to their volume of output rather than to their use of AMS services. GIPSA recovers overhead expenses for its smaller programs, such as rice inspection and contract-compliance services, through charges based on inspection hours. But GIPSA recovers overhead expenses in grain inspection, as shown in table 3, through a separate sliding charge per metric ton of outgoing grain from export elevators.

An agency might choose to rely on a separate volume-based overhead charge out of concern that high hourly rates might lead to disincentive effects. If overhead charges lead to high hourly inspection rates, then firms may lose the connection between the services they receive and the charges they are assessed. Some might be adversely affected by a high hourly rate, and some firms might avoid using hourly services.

Many overhead activities are not directly attributable to the actions of individual firms; instead, they may be thought of simply as costs associated with having an inspection system. If such costs are unaffected by the actions of individual plants, then there will be no way of basing specific overhead charges on costs at specific firms. Provided that overhead expenses are to be financed through user fees, the financing goal shifts to setting overhead charges to recover expenses without inducing firms to change their normal ways of doing business.

Financial Management

We address three issues of financial management. First, Congress, OMB, the Treasury Department, and an agency's Department can greatly constrain the ways in which agencies can collect and spend user-fee revenues, and they can do so unintentionally. An agency that is designing a user-fee system needs to pay careful atten-

tion to obtaining the appropriate authorities to collect and spend the associated revenues. Second, providing that agencies gain the requisite authority to spend revenues, they may face problems of matching revenue flows to expenditure flows and will need to design financial methods of doing so. Finally, agencies need to design ways to adjust fee schedules over time to account for inflation, productivity growth, changes in workload, and changes in inspection goals. Some methods of adjustment are more difficult than others, and agencies should carefully design an adjustment mechanism when user-fee authority is obtained to avoid being locked into an inferior mechanism.

Spending Authority

An agency that receives the authority to collect user fees won't necessarily have the authority to spend the revenue from those fees. Some agencies, such as AMS, NMFS, and GIPSA, have the authority to spend fee revenues toward support of agency actions, thus creating a direct link between user-fee payments and corresponding Government services. Congress may, nevertheless, constrain such agencies' budgets by placing annual limits on spending authority.

Separate spending authorities are required for the income generated from reserves in trust funds or Treasury accounts, which, with specific legislative authorization, can earn interest. AMS and GIPSA each have investment authority. They can manage the investment of those funds in insured or collateralized securities, and they have the right to spend earnings on those investments.

Other agencies have the authority to collect fees but no authority to spend them; in those cases, fees will most closely approximate specific taxes. For example, Immigration and Naturalization Service (INS) and NRC fee revenues are deposited directly to the U.S. Treasury, not in agency accounts. Congress continues to appropriate funds each year for those agencies and directs them to set fees to yield revenues that match appropriated funding.

Congress may also choose statutory spending authorities that fall between the two extremes. The FDA's statutory framework for prescription-drug user fees is carefully crafted to ensure that appropriated funds support a continuing base of resources for review of new

drug applications. User fees support new spending authority for additional resources needed to expedite the review process. In this situation, user fees do not offset appropriated funds but instead are authorized to add to those funds.

Congress sometimes changes agency spending authority. APHIS originally had no spending authority for agricultural quarantine and inspection (AQI) user fees beyond that authorized by Congress in the annual budget. That constraint has changed through time. Today, APHIS can spend revenues in excess of authorized spending. But because APHIS has no trust fund to bank those funds and because the excess of revenues above authorized spending can fluctuate substantially from year to year, APHIS has difficulty planning for the use of the excess funds. In 2003, the agency will assume complete spending authority over AQI user revenues.

Expansive spending authority provides agencies with greater discretion in decisionmaking, while limitations on spending authority restrict agency discretion and place greater responsibility in the hands of Congressional and executive branch oversight institutions. Expanded agency discretion will have the greatest effects in those agencies with extensive latitude for adjusting the types and amounts of services that they deliver. For example, at AMS, the agency pursues the development of new tests, grades, and standards of identity for products. Because AMS services are voluntary and because the agency is financed largely through fee revenues, AMS has strong incentives to develop services that industry is willing to pay for. If AMS were financed entirely out of General Fund revenues, then innovations in service delivery would generate no financial return for the agency. Innovations would be less likely to be introduced except insofar as Congress directed the new actions and wrote new financing into the budget.

The NRC is a regulatory agency and, therefore, will necessarily have a more adversarial relationship with industry than AMS does. When Congress directed the NRC to collect fees without granting it spending authority over the revenues, Congress aimed to avoid creating conflicts of interest by eliminating the link between the agency's revenues and specific enforcement actions.

But limitations on spending authority may not succeed in insulating regulatory decisions from financial deci-

sions and may create a more contentious regulatory environment. Under its current user-fee system, the NRC budget is equal to total fee revenue and represents a substantial direct cost to industry. If the industry can persuade Congressional budget and appropriations committees to reduce the NRC budget, then it can directly reduce its own costs and can also limit the agency's regulatory scope. The method of agency finance means that agency regulatory activity now comes under heightened scrutiny from more committees with competing jurisdictions. Among the agencies that we interviewed, NRC clearly experiences the most adversarial relationship with its regulated firms, and a significant part of the contention may arise from the incentives introduced by the peculiarities of agency finance.

The situation stands in contrast to FDA-industry relations over user fees. The FDA is also a regulatory agency, but FDA user fees provide financing for a goal desired by both the agency and the industry—expedited review of new drug applications. Expedited review serves public health goals by putting effective new prescription drugs on the market more quickly and by lengthening the actual patent lives of new drugs, thereby making them more profitable. NRC user fees do not provide for better regulation or for services desired by industry, and thus they intensify agency-industry conflicts.

Matching Revenue to Expenditure Flows

Agencies often need start-up funds when user-fee systems are introduced. Typically, initial revenue flows may be modest because firms will not be billed until 30 days of service are provided, and then firms have an additional 30 days to pay. If firms are delinquent in payment, revenue flows will be further reduced. Agencies also may have substantial amounts of accrued liabilities for employee compensation at the time of fee introduction. Liabilities may take the form of accrued leave balances, workers' compensation payment liabilities, shutdown costs for office closures, severance pay, and unemployment costs. Congress may need to provide appropriations, in the amount of employee accrued liabilities, to a program that is moving to user fees.

Agencies also need to build reserve funds because user-fee revenues may not match expenditures throughout a year. For example, under the FDA's system, fixed per-plant and per-drug payments must be received by January 31. The result is that revenue flows are far

below expenditure flows in the first third of the fiscal year and then a large stock of funds is received at the end of the first third (Jan. 31st), that will be drawn on throughout the year.

Other flows are not as deterministic. APHIS Veterinary Service revenue flows have fluctuated unexpectedly in response to sharp fluctuations in the movement of cattle in and out of Mexico for feeding, and APHIS AQI international air passenger revenue flows could fluctuate sharply as international air travel varies. In neither case do APHIS costs vary as quickly because the fixed costs of APHIS inspection and quarantine facilities do not vary with short-term changes in volumes.

Some agencies, such as AMS, GIPSA, the Federal Aviation Administration (FAA), and the Forest Service, maintain dedicated trust funds for holding revenues. Others, such as APHIS and FDA, do not maintain trust funds but have Treasury expenditure accounts. In either case, agencies strive to maintain a reserve balance; AMS attempts to maintain a balance equal to 4 months' expenditures, while GIPSA aims for 3 months' expenditures. The desired reserve balance will be larger as flows are more variable. The FAA, whose fee revenue depends on highly variable movements in air travel, has maintained reserves of over a year. To build reserve balances, agencies will need either appropriations from Congress or a fee schedule that provides for collection of revenues for both current and accrued liabilities.

Temporal Adjustments

Agency costs and general inflation may rise over time, or new technologies may allow agencies to perform their missions with fewer resources, thereby lowering costs. In either case, agencies will need to adjust the level and structure of fees to continue to match revenues to expenditures.

The most difficult fees to adjust are those specifically written into a statute, such as those for the Customs Service and the Immigration and Naturalization Service, because an Act of Congress is required to change them. Alternatively, actual fees may be set in a rulemaking procedure with legislation providing the authority and defining the coverage of fees. Some agencies then attempt to change fees in annual rulemakings; such strategies are easier than passing Acts of Congress but are still rather cumbersome. The NRC, for example, is

currently required by statute to establish, through annual rulemaking, fees to recover 100 percent of its budget authority, less amounts for high-level waste activities for the Department of Energy. But the NRC cannot begin the rulemaking until the annual appropriation is passed, a stipulation that frequently places the agency under a very tight time schedule.

APHIS sets a 5-year schedule of annually escalating fees in a single rulemaking, thus reducing the regulatory burden on the agency and on payers. A 5-year schedule can be risky if the agency underestimates future inflation or, in APHIS' case, if a future recession leads to a sharp downturn in air travel. APHIS asserts that it has budgeted cautiously, setting relatively high near-term fees to build a reserve and provide for modest annual increases. The agency also retains the option of changing fees through the regulatory process.

Finally, an agency may try to include an automatic escalator in its fee structure. FDA fees are adjusted annually in accordance with the changes in inflation and then revisited by all parties when the law is reauthorized every 5 years.

Incentive Issues

User-fee systems that are designed to finance operations may also induce some changes in firms' behavior. Some behavioral changes affect agency costs and efficiency. For example, firms faced with a choice of paying high fees for high-cost services or low fees for low-cost services may reorganize their own operations to purchase low-cost services, thus leading to declines in total agency costs and revenues. Other behavioral changes may affect an agency's mission, and the agency may take steps to modify behavioral changes that harm the agency's mission and encourage changes that support the mission. We surveyed some examples of incentive strategies below.

Fee Adjustments and Incentives

In some cases, agencies adjust fees because they believe that high fees on some specific service will discourage behavior that is in the larger public interest. For example, APHIS does not charge fees for certain animal tests (brucellosis, tuberculosis, and *Salmonella*, for example), because the agency is concerned that fees will discourage the use of the tests. APHIS also argues that the information gained from such tests is of substantial value to the general public and not just to the fee payer.

The NRC exempts nonprofit educational institutions from fees on the grounds that their production of new knowledge through research is a public good. The FDA's user-fee program faces some potentially strong disincentives, and the agency devised a strategy to avoid them. User fees at the FDA are designed to finance expanded FDA drug-review operations. Those operations occur in two administrative phases: the Investigation of New Drug (IND) authorization and the New Drug Approval (NDA) application. Pharmaceutical manufacturers apply for IND authorization at an early research stage before they begin testing drugs for safety and efficacy. NDA applications are made after testing to receive approval for marketing. FDA does not charge IND user fees but instead finances that program out of other fees because it fears that IND fees might discourage drug research. For similar reasons, the agency also does not charge NDA fees for orphan drugs (drugs having very small potential markets), for the first drug application filed by a new business, or when the Secretary of Health and Human Services finds that a waiver is necessary to protect the public health. FDA activities in those areas are funded through other user fees. Regulatory compliance costs, such as routine plant inspections and post-market surveillance, are not funded by user fees.

FDA user-fee revenue is projected to reach \$117 million in 1998. If the entire \$117 million were to be recovered from fees on remaining (unexempted) NDA's only, the fee would be almost \$800,000 per application. There is concern that fees of this magnitude could discourage attempts to market new drugs. The statute (the Prescription Drug User Fee Act) redesigned the NDA fee to remove that disincentive by breaking the NDA fee into three parts. The charge per NDA was reduced by two-thirds to slightly over \$250,000 per application in 1998. One-third of the money was to be recovered by a fixed charge on each manufacturing plant in the industry (275 plants, for a 1998 fee of \$142,000 per plant). The other third was to be recovered through a fixed charge on each existing listed prescription drug (2,100 drugs, for a 1998 fee of about \$18,600 per listed drug). The fixed charges will not affect drug pricing or research, and they are low enough that no plants would close and no drugs would be delisted (in contrast to the meat sector, drug plants are all relatively large). The fee structure is designed to take the money from profits rather than in the form of higher prices. Drug firms accepted this strategy because the added revenue allows for accelerated review of NDA's and, therefore, in earlier marketing of approved drugs and in an effective

lengthening of patent lives. In turn, earlier marketing allows for expanded consumer benefits, and lengthened patent lives add to firms' profits.

In other cases, user-fee structures can change industry behavior in ways that do not necessarily harm the goals of public policy but do have important effects on agency finances and operations. For example, in seafood inspection, firms may choose among combinations of inspection/certification services offered by NMFS. Some have chosen to take HACCP certification while dropping continuous in-plant inspections. HACCP services are priced higher on an hourly basis because they require more highly trained inspectors and because HACCP inspectors spend more time in training and in out-of-plant review. But HACCP services also imply fewer inspector hours annually for a given volume of product, and the shift to HACCP has led to declines in NMFS revenues, workload, and inspector workforce. Agencies must be flexible enough to respond to industries' reactions to changes in fee structures and service offerings.

Congressional authorizations for fees can create incentive problems. For example, legislation requires the NRC to recover 100 percent of its budget authority through fees. Costs that are not recovered through licensing and inspection fees, including costs for activities that do not directly benefit licensees, are to be recovered through annual fees assessed to NRC licensees. For some commercial reactors, the sum of these fees can amount to \$4 million annually. At aging reactors, firms can avoid these fees by shutting down operations; thus the fee structure (quite large for operating reactors, zero for closed facilities) can affect a firm's operating decisions. Because agency costs for inspection, regulation of waste, and research do not disappear when a facility ceases operations, costs must then be recovered through increased fees on operating facilities, which then exacerbates the incentive problem. The problem is that authorizing legislation departs from the rule that those who cause changes in agency costs should be those who bear the burden of the fees.

Information and Incentives

NMFS conducts a voluntary inspection program for fishery products that is financed by user fees. The services offered include HACCP-based establishment reviews and inspections, IQA (integrated quality assurance) establishment review and inspection (IQA relies more heavily than HACCP on end-product testing, as opposed to process monitoring), continuous in-plant

inspection of processes and products, and product grading, product lot inspection, lab analyses, training, and consultation. User fees are based on service costs. Firms that choose to have no inspection pay nothing, those that choose lot inspection pay less than those that choose continuous inspection, and those that choose HACCP-based inspection pay higher hourly fees than those that do not choose HACCP.

Firms do have some incentives to choose the higher cost, more intensive inspection services. NMFS allows firms to mark products with inspection indicators. Thus, products produced under HACCP procedures can carry a label that says so. Similarly, products produced under continuous Federal inspection can carry labels that identify them, and products may also carry grades. Products that are lot inspected may carry labels that attest merely to the specific product claims made and tested for. By designing an information system for buyers, the NMFS system provides consumers with indicators of product quality and provides plants with incentives to invest in product quality.

Incentives for Gaming Fees

User fees are rarely imposed when affected industries offer strong and unified opposition. The views of industry representatives are important in deciding which activities will be financed by user fees, how fees will be structured, and how fee revenue will be used. Most agencies regulate a variety of firms with diverse interests; for example, firms in the meat industry can align among different interests represented by species (cattle, hogs, lambs, chickens, turkeys), process (slaughter, processing), or size. When fees are not based on the costs of providing service, but rather on more arbitrary bases, fee payers may form coalitions to influence the fee structure. One coalition of fee payers will offer proposals that effectively shift fee payments to other payers. Agency leadership will spend a lot of time analyzing and responding to these proposals from competing interest groups, especially when fee structures are frequently revised either through statutory review or through a rulemaking process.

The Federal Aviation Administration (FAA) has received most of its funding since 1970 from the Airport and Airway Trust Fund, which in turn receives most of its funding from a 10 percent tax on domestic airline tickets. The trust fund finances FAA's investments, such as construction and safety improvements at airports and technological upgrades to the air traffic control system. The FAA also provides a wide variety of

services, such as air traffic control, certification of new aircraft, and inspection of the existing fleet of aircraft. The 10 percent ticket tax, while administratively simple, does not reflect the costs of providing services. Passengers that pay higher fares and airlines that charge higher fares pay more in taxes to support the system than do discount passengers and airlines, even when the two groups impose equal costs on the FAA. That fee structure creates a competitive advantage for discount carriers.

A coalition of major airlines proposed an alternative fee structure: a flat fee of \$4.50 on each originating passenger, a fee of \$2 on each originating seat on larger jets and \$1 on other planes, and \$.0005 per mile of distance

between origin and destination. In a report on the proposal, the GAO noted the proposal would, not surprisingly, shift user-fee payments from the major carriers to discount carriers. A discount carrier flying directly between two cities would pay the same fees as a major carrier flying from the origin to a hub and then from the hub to the destination city. The major carriers, however, impose greater costs on the FAA by having two takeoffs and landings and by flying a longer total distance.

When fee structures cannot be closely tied to the costs of providing service, they cannot be easily defended, and agencies should expect both frequent debate about the fairness of existing fee structures and frequent proposals to shift fee responsibility to other users.

Table 2-- Selected fee-reliant Federal agencies

Agency	User fees as percent of outlays (FY96)
Food and agriculture agencies	
Agricultural Marketing Service	81
Animal and Plant Health Inspection Service	30
Food and Drug Administration	10
Food Safety and Inspection Service	13
Grain Inspection, Packers and Stockyards Administration	54
Natural resource agencies	
Bureau of Reclamation	83
Minerals Management Service	73
National Oceanic and Atmospheric Administration	13
United States Fish and Wildlife Service	36
United States Forest Service	28
Other regulatory agencies	
Comptroller of the Currency	106
Farm Credit Administration	95
Federal Communications Commission	73
Federal Trade Commission	65
Immigration and Naturalization Service	38
National Credit Union Administration	129
Nuclear Regulatory Commission	98
Office of Thrift Supervision	113
Patent and Trademark Office	109
Securities and Exchange Commission	86
United States Customs Service	70

Source: U.S. Government Accounting Office, "Federal User Fees: Budgetary Treatment, Status, and Emerging Management Issues," GAO/AIMD-98-11, December 1997.

Note: Some agencies receive fee revenues that exceed outlays, either because they are building reserve funds or because of unexpected changes in workloads or revenues.

Table 3—Agency interviews

Agency	Activities financed by user fees	Fee characteristics
Agricultural Marketing Service	Grading, inspection, and quality assurance for 235 agricultural commodities and for processing plants. Fees finance about 75% of AMS budget.	Modern program dates from 1946; FY97 revenues were \$164 million. Based on hourly fees for inspector services, with adjustments for guaranteed volumes. Separate testing charges; overhead recovered through volume-based charges for some commodities and hourly surcharges for others.
Animal and Plant Health Inspection Service	Veterinary Services—inspection of imported animals and birds; animal products, byproducts, semen and embryos; export certificate endorsements; tests; and establishment approvals. Agricultural Quarantine and Inspection—inspection of international passengers, aircraft, trucks, railcars, and vessels.	Overtime fees in place since 1950's, others since 1991. FY96 fee revenues were \$164 million, about 30% of APHIS budget. Cost-based charges per animal, vessel, aircraft, truck, railcar, passenger, establishment, or test, with some additional charges based on inspector hours. Exemptions for tests with significant public health impacts.
Food and Drug Administration	Expansion (compared to 1992 base) of resources for review of new drug applications. Inspection, compliance, and post-market surveillance activities are financed through appropriations. Fees are waived for orphan drugs, new businesses, and other public health reasons.	Program dates from 1992; FY96 fee revenues were \$85 million. One-third of revenue comes from application fees for new drugs, one-third from annual fees on existing drugs, and one-third from annual fees on manufacturing plants.
Grain Inspection, Packers & Stockyards Administration	Grain and rice inspection and weighing; commodity inspection for USDA purchases. Compliance, standard setting, and methods development funded through appropriations.	FY97 fee revenues: \$34 million. Based on hourly inspector charges, which vary with volume commitments and time of day or week. Test charges recovered separately, and overhead recovered through volume charges.
National Marine Fisheries Service	Fees cover all costs of inspection and agency overhead for seafood products and processing plants. Some support activities (research, standard setting, international negotiation and information) are financed through authorization.	Inspection has been fee supported since 1958. Fee revenues have varied from \$10-\$13 million in recent years. Fees are based on hourly charges for inspection, with variation for location, time of day and week, and required skills (e.g., HACCP hourly charges are higher).
Nuclear Regulatory Commission	Fees cover all agency activities except high level waste activities and certain activities for the Department of Energy. Includes licensing and inspection for: nuclear reactors and other nuclear facilities; the processing, handling, and export of nuclear material; nuclear waste repositories. Also includes research and accident and incident investigations.	Fees collected since 1960's. Fee revenues in FY97: \$462.3 million. Based on hourly charges for full costs of inspection, license fees, and annual fees charged to all active entities. Agency does not retain fee revenues, but revenues by law must approximately match full expenditures.

Source: ERS interviews with agency financial officers.

Table 4—An example of a user-fee structure: GIPSA charges

Panel 1—Inspection and weighing service

Contract Length	Monday through Friday		Saturday & Sunday	Overtime	Holidays
	6 am - 6 pm	6 pm - 6 am			
	<i>Dollars per hour (per service representative)</i>				
1 year	23.00	24.80	32.40	32.40	39.00
6 months	25.00	26.80	34.40	34.40	43.60
3 months	28.00	29.80	37.40	37.40	46.60
Noncontract	33.00	35.00	42.80	42.80	52.60

Panel 2—Materials and equipment fees

Test	Dollars per test (assessed in addition to the hourly rate)
Aflatoxin (other than thin layer chromatography)	8.50
Aflatoxin (thin layer chromatography)	20.00
Soybean protein and oil (one or both)	1.50
Wheat protein, sunflower oil, or waxy corn (per test)	1.50
Vomitoxin (qualitative)	7.50
Vomitoxin (quantitative)	12.50
Class Y weighing services (per carrier)	
Truck/container	0.30
Railcar	1.25
Barge	2.50

**Panel 3—Annual administrative fee
(assessed on an accumulated basis on 10/1)**

Metric tons of inspected grain	Dollars per ton
1,000,000 or less	0.090
1,000,001 to 1,500,000	0.082
1,500,001 to 2,000,000	0.042
2,000,001 to 5,000,000	0.032
5,000,001 to 7,000,000	0.017
More than 7,000,000	0.002

Chapter 4

Economic Analysis and User Fees

Economic analysis can provide insight into several key choices when designing user-fee systems. We cover four issues: defining the goals of a user-fee program, the conditions under which user fees should be used rather than other financing mechanisms, designing an appropriate fee structure, and assessing the effect of fees on retail and supplier prices.

Should Fees Aim To Finance Operations or Change Behavior?

Most user-fee systems are designed to finance agency operations. For example, GIPSA, APHIS, and AMS fees are set to provide a steady and reliable source of funds to support those agencies' activities. But fees could be designed to change the behavior of fee payers. Excise taxes imposed on manufacturers' purchases of chlorofluorocarbon gases (CFC's), for example, are designed to change manufacturers' behavior by inducing them to substitute other materials for CFC's, thus reducing CFC emissions (Barthold, 1994). Similarly, FSIS user fees could be designed to finance inspection operations, as well as other FSIS activities, or their design could aim to reduce pathogens in meat and, more generally, to improve food safety.

The two goals often conflict. A system designed to change behavior is usually not well designed to finance activities. For that reason, decisionmakers must usually choose one of the goals; they cannot achieve each with the same fee system. Most agencies aim to finance operations because that goal has often provided the impetus for a shift to fees and because that is often a more feasible goal.

Agencies that have dual goals for charges will typically rely on dual systems of charges. For example, an agency might charge user fees to finance operations and might also administer a system of fines for noncompliance with agency rules. Usually, revenues from fines are not commingled with user-fee revenues, but instead are paid to the Treasury and become part of general Federal revenues. We describe the reasons for conflict below,

using "financial" to refer to the goal of financing operations and "behavioral" to refer to the goal of changing behavior.

The Basis for Fees

Agencies must decide on some basis for setting charges. For example, GIPSA bases some charges on inspector hours, others on the typical cost of materials and equipment used in a test, and others on the volume of a firm's production. CFC excise taxes vary directly with the amount and type of CFC's purchased (gases with greater potential for ozone depletion get higher taxes).

Financial Targets

If the goal is financial, fees should usually have a broad basis to keep individual fee burdens small. Larger burdens lead firms to take steps, either politically or through the design of plant operations, to limit their exposure and, therefore, to lower the amount of revenue received. Fees should be based on factors whose use is relatively insensitive to the fee to provide a stable funding source. GIPSA overhead charges are based on a plant's volume of export grain, which is unlikely to be affected by the charge. FDA obtains two-thirds of its user-fee revenue from fixed charges on each existing manufacturing plant and each registered prescription drug. Because they are spread so widely, FDA user fees are not large enough to cause plants to close and drugs to be delisted. If the entire fee were placed on new drug applications, some research might not be done and some drugs might not be introduced.

Behavioral Targets

If the goal is behavioral, fees should be based on factors whose use is sensitive to the fees. The reason for choosing CFC charges is the view that high fees on their use will lead manufacturers to find substitutes and use less of them. These considerations argue for a narrow basis (a few precisely defined actions that will incur fees).

The Level of Fees and Information Needed To Set Them

Financial Targets

Fees must be set to recover the costs of agency operations. To design a fee structure, the agency will need detailed information on the agency's costs of carrying out various activities.

Behavioral Targets

Fees must be set high enough to stimulate payers to change their behavior. These could be considerably higher than fees set to realize financial targets. To design a proper fee structure, the agency will need detailed information on the likely responses of payers to different fee levels. The existing statutory framework treats fees that do not reflect costs as excise taxes. As a practical matter, then, policies aimed at providing incentives to improve food safety would have to be implemented through taxes instead of user fees.

The Temporal Stability of Fee Revenues

Financial Targets

Agency costs will change through time in response to inflation, productivity growth, and changes in workload. Agency revenues from a given fee structure will also change with changes in the volume of industry activity. Agencies will strive to match revenues to costs through time by changing the level and structure of fees.

Behavioral Targets

If fees are successful, then revenues will fall over time. If these fees are used to finance operations, then agencies will need to find another source of funding. If fees designed to change behavior have no effect, however, then revenues may rise over time along with the phenomena that they are supposed to deter, and agencies will need to find uses for the revenues.

When Should User Fees Be Chosen To Finance Operations?

OMB guidelines establish Federal policy regarding fees assessed for government services (OMB, 1993). The guidelines, as revised in 1993, state that a user charge should be assessed when a beneficiary of government services receives special benefits, which are defined to accrue when a government service does the following:

- enables a beneficiary to obtain more immediate or substantial gains than those that accrue to the general public; or
- provides business stability or contributes to public confidence in the business activity of the beneficiary; or
- is performed at the request of or for the convenience of the recipient and is beyond the services regularly received by other members of the industry or group or by the general public.⁷

These guidelines issued by OMB contain an important change from the original user-charge guidelines issued in 1959. The earlier version stated that "no charge should be made for services when the identification of the ultimate beneficiary is obscure and the service can be primarily considered as benefitting broadly the general public." The revised version relaxed that standard: fees can be charged as long as the benefits to the public are incidental to the special benefits provided to industry.

The 1959 guidelines are fairly close to standards from economic analysis (Fisher, 1988):

User-charge financing is more desirable the greater is the share of benefits that accrue to direct recipients; and
The efficiency case for user-charge financing of a government service is stronger the more responsive is demand for the service to its price.

Economic analysis suggests that user-fee financing of meat and poultry inspection is problematic if inspection provides public health benefits that primarily flow to the general public. Furthermore, economic analysis gives good reason to doubt the existence of special ben-

⁷OMB guidelines relate specifically to user charges assessed under the IOAA (rather than under specific authorizing legislation), and which, therefore, must be returned to the Treasury.

efits of any significant size under 1993 guidelines in OMB's Revised Circular No. 25. To the extent that Federal inspection leads to increased profits for the meat industry through increased demand or reduced costs, those profits should be quickly passed through to consumers as lower prices if the industry is competitive. Empirical studies find little evidence of monopoly power in the industry, and the best evidence suggests that the industry is competitive (GIPSA, 1996; Morrison, 1998).

Economic analysis suggests that user-fee financing may be inappropriate under certain circumstances, and that insight lies behind the original 1959 OMB guidance. At first glance, meat, poultry and egg products inspection activities appear to be activities for which user fees would be inappropriate. However, we believe that assessment of user fees would not impose substantial costs on the economy and could generate benefits. The economic guidelines cited above are concerned with the effects of pricing on demand for a service. But because Federal inspection is mandatory, the demand for inspection services should be unresponsive to the price of the service (the user fee) and, as a result, user fees would not change the quantity of inspection services used. As a result, the imposition of user fees will have no effect, positive or negative, in the context of the economic guidelines outlined above. To understand why, we next discuss the reasoning behind the two standards from economic analysis.

User Fees and Allocative Efficiency

Direct users are those who pay the fees: slaughter and processing establishments in the case of meat and poultry inspection. Meat consumers are indirect users of inspection services because they gain public health benefits from having their meats inspected but do not directly pay the user fees.

When a fee accurately reflects the costs of providing a service, direct users will purchase units of the service as long as the benefits to them exceed costs. If direct users obtain a large share of all the benefits from the service, then we can reasonably say that the public will receive the service as long as the benefits to the public exceed the costs and that it is, therefore, worthwhile for government to provide the amount of the service that is taken. But if direct users obtain only a small share of the benefits from a service, then we cannot say that the public is receiving services as long as benefits to the public exceed costs. Indeed, further expansion of the

service could easily provide more benefits to the public that exceed the additional costs even if the additional costs outweigh the benefits to direct users.

Direct users and their share of benefits become an issue only if the demand for the service is sensitive to the size of the fee. If demand is sensitive, then general revenue financing (and a consequent zero price of using the service) could lead to a large expansion of the service, and impose substantial additional costs on the taxpayers, even though the expansion yields minimal additional benefits (direct users would use the service as long as the benefits exceeded price, set to zero). Alternatively, a user fee set at an inappropriately high level could choke off use of the service, even if the benefits from additional use substantially exceeded the costs to society of additional services. When demand is sensitive to the fee, user fees could serve a useful metering function, leading the government to provide additional units of the service only as long as the benefits to the public exceeded costs. Economists use the term allocative efficiency to refer to the proper amount of a good or service to provide. A price system induces people to use a service as long as their valuation of the service exceeds the price. If the price is also the cost of providing the service, then the price system will induce people to use a service as long as their valuation exceeds the cost of providing it.

However, because Federal inspection is mandatory for meat and poultry products shipped in interstate commerce, the demand for inspection services will not be sensitive to the fee. If imposition of a fee and variations in the fee do not cause changes in Federal inspection services, then the economic standards stated above are irrelevant. Fees can neither improve nor diminish allocative efficiency in inspection services if they do not affect the volume of services provided.

Some FSIS services (e.g., some testing and information provision) may indeed be voluntary and therefore potentially price sensitive. Those sorts of services would be subject to the economic standards: economic theory suggests that user fees should not be applied to those services if direct users gain a small share of benefits or if demand is price sensitive. Moreover, inspection user fees could affect allocative efficiency in the meat industry if the fees themselves (as distinct from the regulation that they finance) caused some establishments to close. However, it should be possible to design a fee structure that minimizes that possibility.

User Fees and Productive Efficiency

Economists frequently refer to concepts of efficiency: allocative efficiency, the subject of the previous section, refers to proper amount of a service to offer; productive efficiency refers to the costs incurred in providing a given quantity of a service. Economic analysis offers three guidelines for user fees that relate to productive efficiency:

- Direct users of a service must be identified, and it must be possible to exclude them, at reasonable cost, from consuming the service if they don't pay;
- User fees can create administrative costs for government providers and compliance costs for direct users. These costs should be small in relation to the benefits of a fee system;
- User fees can increase productive efficiency (reduce costs) of a service if the fee system generates new information on costs and production of program activities.

The first and second guidelines are clear. A government agency needs to identify direct users and get them to pay the fee. The process of collecting fees creates new costs for the agency and compliance costs for direct users because each must now make, record, and review payments. In general, these costs will substantially exceed any savings realized through reduced support from general revenues because the system for administering and paying for general revenues remains in place. Compliance and administrative costs are real costs to society because they represent labor, capital, and materials that could have been applied to other pursuits.

User fees do offer one relatively unexplored but important opportunity for efficiency gains. Administration of a fee system brings costs but also often generates new information relating detailed program costs to regulatory activities and sometimes to program outcomes. Improved information can allow program managers to operate more effectively by allocating resources to their most productive uses and by identifying reasons for unusual cost overruns. Economists use the term “productive efficiency” to refer to the provision of a given amount of services at the least cost.

Economic theory often proceeds under the simplifying assumption of productive efficiency—that firms and agencies already operate at least cost. As a result, theory summaries often cite only the other criteria, such as

allocative efficiency and administrative costs. But the simplifying assumption can be misleading. Prior to the deregulation of transportation industries in the United States in 1975-84, most economic analyses of the effects of regulation emphasized allocative efficiency—whether regulation caused shifts in industry outputs. But retrospective evaluations of the effects of reform found that regulation often affected productive efficiency—regulation caused important increases in costs. The simplifying assumption limited good economic analysis in the pre-reform period.

The primary economic criteria framing the decision to impose user fees are not particularly relevant for meat inspection as long as the volume of services provided is unaffected by the fee. A fee system will generate administrative costs that exceed those imposed by reliance on general revenues. As a result, the economic case for user fees must rely on the possibility that user fees will lead to more efficient operation of the inspection system and on the uncertainties associated with obtaining general revenue financing.

How Should Fees Be Set?

Once the decision is made to fund a government-provided good or service with a user fee, the agency must decide on the amount and structure of the fee. Should the fee be a fixed charge to each direct user—a license fee? Or should it be based on units of use, such as \$30 per inspector hour? The charge per unit could also vary with the number of units, as it does with GIPSA, which recovers administrative costs through a charge of 9 cents per ton for the first million tons of export grain, a charge that falls steadily to 0.2 cent for volumes over 7 million tons. User-fee systems could also contain combined fees that reflect combinations of license fees, specific service fees, service usage charges, and volume-based charges. In general, a variety of different fee structures could each raise the same amount of revenue. The appropriate fee structure depends upon the goal one is trying to reach with the user-fee system and the nature of the service provided.

Most user-fee systems are designed to finance the agency. They may also be aimed at helping the agency operate efficiently by producing services for which benefits to society are at least equal to costs and by producing services in the most cost-effective manner. The primary rule for setting fees is the same for each of these goals: fees for specific services should reflect the incremental cost associated with providing that service. The

incremental cost is the additional cost the agency bears by providing an additional unit of service. In the case of inspection services, the incremental cost of inspection services provided to a plant includes the number of inspector hours included in a service, priced at the value of the wages and fringe benefits associated with those hours, plus the costs associated with supervising inspection hours.

Incremental inspection costs can vary, as they do with GIPSA, with the time at which services are used (evening, overtime, weekend or holiday), if those times impose higher wage costs on the agency. They can also vary with the quantity of services provided (irregular and low-volume services impose higher costs on an agency because they generate more travel time and inspector downtime), and with the types of services provided. Effectively run user-fee systems impose great demands on agencies to accurately measure costs if they are to be accurately priced.

Most agencies also carry fixed costs associated with management, standard setting, research, and compliance. These costs cannot be reliably attributed to the actions of particular payers, and there is no one best way to set those fees. Often, an effective way to recover fixed costs is through charges on bases that are insensitive to the fee. For example, GIPSA recovers overhead costs through a per-ton charge on inspected grain, while AMS recovers overhead costs for poultry grading through a fixed charge per carcass. Such charges are relatively small since they are imposed on a large base. They likely will be passed through as small increases in retail prices (again spread widely among all ultimate beneficiaries of the service). The charges are easy to administer since the agencies already monitor carcasses and export volumes through their activities.

User fees generate costs of administering the program, and an agency needs to be alert to these costs. In FY 1998, the NRC expects to collect about \$94.6 million in fees for inspections and licensing services. Fees for 105 reactors account for about 89 percent of that amount, while fees from approximately 6,000 materials licensees account for less than 2 percent. NRC costs for determining the fee requirements and processing fee payments for the 6,000 entities amount to a substantial portion of the total costs of administering the fee program. The agency must invest significant resources compared to the small amount recovered from this class of licensees.

Incidence: Who Ultimately Pays for the User Fee?

The economic incidence of a user fee is the analysis of which individuals (or groups) bear the ultimate burden of the fee. The group that is legally required to pay a tax or fee to the government is not necessarily the group that ultimately bears the burden of that tax or fee because individuals and firms will change their behavior in response to the tax or fee in an attempt to shift the burden to others.

Take the case of a user fee levied on meatpackers. Meatpackers could try to pass on this increase in production costs to consumers in the form of higher prices. But consumers could react to higher prices by buying less meat. In general, if consumers are extremely sensitive to a price increase (that is, if they sharply reduce their purchases of meat in response to a price increase), then meatpackers will be able to pass little of their higher costs through in the form of a price increase. If consumers are quite insensitive to price increases, then much or all of the cost increase will ultimately be passed through to consumers in the form of a price increase.

If consumers were so price sensitive that demand fell sharply in response to an increase in meat prices, then meatpackers would also purchase fewer cattle, hogs, and poultry. Falling demand for livestock could then lead to lower livestock prices. If that should occur, meatpackers could attempt to shift the incidence of the fee back to livestock producers. The extent to which meatpackers could be successful in passing costs back to producers depends on how sensitive livestock production is to changes in livestock prices. If producers are insensitive to prices and do not change cattle numbers in response to changes in cattle prices, then much of the cost increase will be passed back to livestock producers in the form of lower animal prices. Alternatively, if cow-calf operations do produce markedly fewer animals in response to price declines, then meatpackers will not be able to pass back the cost increase.

What is likely to happen in response to meat, poultry, and egg products user fees? Because production costs for all meat and poultry products will be rising slightly because of the user fee, beef consumers will have little incentive to shift to pork or chicken. The retail price sensitivity that matters is the demand for all meat—not

the demand for beef, or chicken, or pork—and the demand for all meat is rather insensitive to price changes.

ERS estimates that meat consumption falls by only 0.34 percent when meat prices rise by 1.0 percent. That estimate may overstate consumer price sensitivity because it is based on meat consumed at home; the retail demand for meat consumed away from home may be even less sensitive to changes in wholesale meat prices. In contrast, producer supply response is likely to be considerably more responsive to price changes, particularly over longer periods of time. As a result, most of the modest increases in production costs associated with imposition of user fees will likely be passed through as higher retail prices for meat.

The form of a fee also matters. For example, the user fee imposed by the FDA for new drug review is designed in such a way that pharmaceutical companies have little incentive to pass it forward to consumers or backward to suppliers. The burden falls on the companies and, ultimately, on their stockholders.⁸ But it is highly unlikely that a similar fee could be designed for meatpacking plants.

The FDA designed fees that do not vary with plant output—a fixed registration charge on each existing drug and a fixed annual fee on each manufacturing facility. Economic theory suggests that such fees will not affect drug prices or drug research. They could cause a plant or product line to shut down if the fee caused total plant or product costs to exceed drug revenues; however, total manufacturing costs are such a small share of drug revenues that this is unlikely. In the drug industry, a large part of all costs is fixed. Research and development costs, and most costs of drug promotion, do not vary as sales of a particular drug change. The variable costs of making more units of a drug is a very small share of revenues and of total costs. The industry's cost and revenue structure allows for the imposition of fees that are borne by stockholders.

In contrast, the variable costs of livestock purchase and processing account for an overwhelming share of total meat and poultry slaughter and processing costs. Fixed costs are small shares of the total, and gross profit margins are low enough that FDA-like fees would likely cause some plants to shut down. As a result, feasible meat and poultry inspection fees will likely have to be based on factors that vary with output (such as meat production or inspector hours) and will, therefore, primarily fall elsewhere than on the firm's owners.

⁸The firms and their stockholders will also reap benefits from the faster reviews funded by the fee because faster reviews mean that a patented drug will get to the market sooner. By getting to market sooner, the drug will be under patent protection for a longer part of its commercial life, and commercially successful new drugs will, therefore, reap higher profits because of effectively greater patent protection. The public will also benefit by more rapid commercial introduction of effective drugs.

Chapter 5

Options for FSIS

FSIS faces a complicated regulatory task. The more than 6,000 Federally inspected establishments perform different functions. At the broadest level, one must distinguish between plants that slaughter live animals from those that process meat that has been slaughtered elsewhere. Slaughter plants typically specialize by species, with cattle, hogs, chickens, and turkeys being the primary (but certainly not the only) species. Plants also vary by size, with the largest plants operating two shifts per day, while many smaller plants operate on irregular schedules. Inspection tasks and the costs that they impose on FSIS typically vary with plant characteristics of function, species, and size. Moreover, FSIS spends money on tasks other than meat-plant inspection, including import and egg products inspection, diagnostic testing, standard setting, and label review. An inclusive system of user fees needs to recover costs for all agency activities, and an effective system of fees needs to be sensitive to how inspection costs vary with plant function, species mix, and size.

Fee Structures

In principle, FSIS could base fees on one or more of a variety of measurement bases. FSIS could base fees on:

- an hourly fee, based on an hourly rate for inspection time;
- a volume fee, based on production volume, such as pounds of inspected meat;
- a value fee, based on gross plant sales or on plant employment;
- a service fee, based on rates specified for each specific task; and
- an annual license fee, which could vary with the size (sales or employment) of the plant.

Information Requirements

Each of these fee bases has different information requirements, and FSIS does not have the necessary information for all of them. Currently, FSIS can reliably identify the amount of time spent in inspection tasks at different plants. The agency also maintains reliable information on carcasses and carcass weights at slaughter plants. This information is collected by FSIS during inspection operations; each piece of information is easy to measure and difficult for plants to manipulate.

Other USDA agencies currently charge fees for laboratory services. If FSIS does not now develop cost estimates for the time, materials, and equipment used in laboratory tasks, the agency could do so in the future without great difficulty.

The same cannot be said for measures of employment and plant sales. Neither is collected as part of normal FSIS inspection operations. FSIS does not have precise measures of plant employment or sales but rather obtains estimates from a consultant. Plant employment estimates (approximate in that a range is reported) are routinely collected and published by private sector marketing services firms that carry out their own surveys. Those firms then estimate sales figures by multiplying estimated employment by average sales per worker in the relevant industry; average sales measures are derived from U.S. Census data. The resulting employment estimate is quite approximate, and the sales estimate is more so. Firms whose fees were based on this estimate would have strong incentives to understate or to reduce employment. The incentive to lay off workers would be particularly strong for annual license fees, which typically jump substantially at discrete thresholds, such as 20, 100, or 500 workers. Plants that otherwise would be just over a threshold would face very strong incentives to restrict output and employment to get under the threshold and thereby reduce fee payments.

Designing a Fee Structure

ERS believes that inspection costs are best recovered through an hourly fee based on an hourly rate applied to inspection hours. Experience in other agencies, other countries, and in current FSIS user fees (for overtime) suggests that this approach is feasible. Given the information available to FSIS, an hourly-based fee best reflects the costs to FSIS of conducting inspection services. Fees that are cost-based are easier to defend to industry representatives and to government oversight agencies. Fees based on the costs of providing services can allow the agency to operate more efficiently because they lead the agency to develop detailed information relating costs to agency actions. Fees can improve efficiency indirectly when they induce firms to use inspection resources in low-cost ways.

If hourly fees are to reflect costs, the agency will need to develop hourly rates that vary with costs. Fees should be adjusted for differences in time of day and day of week, plant location, inspection skills required, and volume commitments if these allow the agency to operate with less inspector downtime. Fees should reflect the full costs of providing inspection services. In addition to inspector wages, fees also should reflect benefits, travel and downtime, inspector training, report writing, review actions, and the costs of supervisory staff.

Ideally, hourly fees would be designed to recover only the costs associated with plant inspection. Separate charges could be developed for testing and consulting services and for agency overhead. Hourly fees do not have to be based on actual hours at the plant, especially if there is concern that such a basis could generate unnecessary conflicts between inspectors and plant managers. Fees could instead be prospectively based on typical hours and tasks for a plant of the type being inspected. Those fees would require a substantial agency investment in information systems.

Although overhead costs, to the extent that they are not directly related to inspection actions, can be recovered through add-ons to hourly charges, the process could lead to some disincentive effects. Instead, overhead could be recovered through charges on volume or through per-plant registration fees. Volume fees are likely to be small enough to avoid any disincentives, and the agency maintains reasonably good information on measures of slaughter volume. If the agency incurs costs associated with plant registration and record keeping, it may improve efficiency by imposing annual plant fees that reflect those costs. However, because of the extremely wide range of plant sizes in the meat sector and the very large number of small plants, FSIS should be alert to the possibility that fixed plant fees will introduce disincentive effects: plants might close because of the fee, or they might choose to downsize or to hide the truth to avoid paying fixed fees that vary with plant size.

Financial Management

Spending Authority

The elements of financial management frequently involve choices and often require negotiations. If user fees are to be introduced, FSIS should strive to obtain investment authority over its reserves, even though most

agencies do not have such authority. Investment authority can provide the agency with additional funds of between 1 percent and 6 percent of annual fee revenue depending on interest rates and the amount of money retained in reserve accounts.

Spending authority matters. At the very least, the agency must obtain the authority to spend fee revenue; without that, the fees simply go to general revenues and fail to benefit the agency, the industry, or the consumer. The agency should also aim to gain spending authority that is as unencumbered as possible because restrictions make agency planning more difficult.

Reserve Funds

FSIS will need to set goals for reserves based on its accrued liabilities and an estimate of the likelihood of paying those liabilities. In principle, FSIS would be responsible for the total cost of employee accrued liabilities, including the value of accrued leave balances, workers' compensation payment liabilities, shut-down costs for office closures, severance pay, and unemployment costs. However, when individual offices close or when programs are downsized, some employees quickly find other employment. As they leave, their accrued liabilities also leave. In setting a goal for reserve balances, this difference between accrued liabilities and actual payments made must be estimated to avoid setting reserve balance goals higher than necessary. The reserve balance goal should also consider variations in revenues collected relative to outlays. Shortfalls are likely to occur in years when animal slaughter and meat consumption are relatively low. In such cases plants will use fewer inspector hours and tests than normal, and user-fee revenues would fall below expected amounts. Because animal slaughter in the United States does not vary much from year to year, FSIS is unlikely to require a reserve as large as a year's outlays, but is more likely to be able to operate with a much smaller reserve balance to cover variations in revenues collected.

Reserves can be built up from two sources: through appropriations that are specifically designated for reserve accounts at the time that a user-fee system is introduced or by setting charges that yield revenues in excess of outlays early in the application of a fee system. A mixed approach would leave agency overhead, including pensions and fringe benefits, to be financed through annual appropriations. If fees are to cover only expenses that are closely tied to industry production, the

agency would require a smaller reserve balance, regardless of how it was financed.

The actual design of reserve funds is important. Some agencies use designated trust funds as sources of reserve balances. Others are able to hold reserve balances in designated Treasury accounts. If an agency is allowed to keep fees collected to finance operations, it must quickly establish adequate reserve balances.

Fee Adjustment

Over time, FSIS expenses will change as inflation raises the costs of inspection and the costs of equipment and materials used in FSIS operations. The agency will need to determine an effective fee-adjustment mechanism when a user-fee system is first authorized. FSIS should resist statutory fee setting because adjustment will then require statutory action. Instead, FSIS should aim for statutory authority to set fees, while leaving the actual design of fees to the rulemaking process. The agency also should set fees for several years in a single rulemaking, a step that is more feasible in an atmosphere of low and predictable inflation. If the agency can set fees for several years at a time, it can limit its own resources spent on rulemaking, and it can provide firms with the necessary information for longer term planning.

Incentive Concerns

Avoiding Gaming

FSIS-regulated establishments can be classified into such different interest groupings as slaughter vs. processing, large vs. small, or red meat vs. poultry. Once a user-fee system is in place, USDA and FSIS should expect frequent proposals for amendment from interest groups and Congress. FSIS can limit gaming and can limit its own exposure to the costs of gaming by designing an original system that is based, as much as possible, on the costs of inspection. By creating a system based on costs, the agency can avoid being charged with arbitrary decisions. The agency also can set a standard for interest groups to follow: interest groups must provide proposals that are cost-based or offer strong reasons to depart from costs if the proposals are to be taken seriously. Such a rule will allow the agency to limit its own expenditure of management resources in debates over fee structures.

Avoiding Plant Closures and Layoffs

Fees that are applied to all plants and that are based on incremental inspection costs will impose small per pound costs on plants; plants are unlikely to close or to alter their operations because of such fees. But some types of fees could have important effects.

In some user-fee proposals, FSIS has suggested issuing licenses. To raise significant amounts of money, the license charges would have to be fairly large. Fees would have to be based on plant size and set at low levels for small plants, then rising to significant amounts—more than \$500,000 for the largest plants—to prevent small plants from closing. Such a system, however, would likely create incentive effects for plants near any breakpoint. A plant just below a breakpoint would have strong incentives to avoid expansion if it entailed a large increase in license fees. The problem for FSIS would then be threefold: the user-fee system would unnecessarily distort firms' decisions to produce meat, some firms would complain that FSIS was keeping them from expanding, and some firms would have strong incentives to misreport output if that would limit their fees.

Encouraging Testing, Training, and Diagnostic Services

FSIS performs some functions not required by law, such as some voluntary testing procedures, advice, and training; it may offer substantially more in the future under HACCP rules. Functions not required by statute may be sensitive to price. Firms may decide not to use them if a fee is charged. If those price-sensitive functions also have public health benefits, then the imposition of user fees may reduce public health benefits.

The agency needs to identify any specific functions that may be sensitive to prices—that is, for which the volume of services used can be expected to vary with the size of the user fee. It then needs to decide which of those functions generate significant benefits to the public that are beyond any benefits to direct payers. Those functions that generate public benefits and are sensitive to prices may be harmed by user fees, and the agency could provide incentives for the use of those services by limiting fees or by providing them at no charge. It could then recover costs through appropriations or through overhead charges.

References

- Australian Quarantine and Inspection Service. *AQIS Bulletin* 10,8 (Sept. 1997): 19 pgs.
- Barthold, Thomas A. "Issues in the Design of Environmental Excise Taxes." *Journal of Economic Perspectives* 8 (Winter, 1994): 133-151.
- Fisher, Ronald C. *State and Local Public Finance*. Glenview, IL: Scott, Foresman & Company, 1988: ch. 16.
- Food and Drug Administration, Public Health Service, United States Department of Health and Human Services. "Prescription Drug User Fee Act of 1992: Fiscal Year 1996 Report to Congress." February 1997.
- Gillette, Clayton P., and Thomas D. Hopkins. "Federal User Fees: A Legal and Economic Analysis." *Boston University Law Review* 67 (1987): 795-874.
- Morrison, Catherine. "Cost Economies and Market Power in U.S. Meat Packing." Unpublished manuscript. University of California at Davis. January 1998.
- Office of Management and Budget. Executive Office of the President. Circular No. A-25, Revised. Washington, DC. 1993.
- _____. *Analytical Perspectives, Budget of the United States Government, Fiscal Year 1998*. Washington, DC, 1998.
- Sperry, Roger L. "Gold Rush." *Government Executive* (March 1998): 13-17.
- United States Department of Agriculture. Food Safety Inspection Service. "User Fee Study." March 1996.
- United States Department of Agriculture. Grain Inspection, Packers and Stockyards Administration, Packers and Stockyards Program. *Concentration in the Red-Meat Packing Industry*. February 1996.
- United States General Accounting Office. "Federal User Fees: Some Agencies Do Not Comply With Review Requirements." GAO/GGD-98-161. June 1998.
- _____. "Federal User Fees: Budgetary Treatment, Status, and Emerging Management Issues." GAO/AIMD-98-11. December 1997.
- _____. "Intellectual Property: Fees Are Not Always Commensurate With the Cost of Services." GAO/RCED-97-113. May 1997.
- _____. "Food-Related Services: Opportunities Exist to Recover Costs by Charging Beneficiaries." GAO/RCED-97-57. March 1997.
- _____. "Airport and Airway Trust Fund: Issues Related to Determining How Best to Finance FAA." GAO/T-RCED-97-59. February 1997.
- _____. "Forest Service Reforestation Funding: Financial Sources, Uses, and Condition of the Knutson-Vandenberg Fund." GAO/RCED-96-15. June 1996.
- _____. "Customs Service: Passenger User Fee Collection Needs to be Reevaluated." GGD-95-138. May 1995.

Appendix 1

Glossary of Abbreviations

AMS--Agricultural Marketing Service	GIPSA--Grain Inspection, Packers and Stockyards Administration
APHIS--Animal and Plant Health Inspection Service	HACCP--Hazard Analysis and Critical Control Points
AQI--Agricultural Quarantine and Inspection	IOAA--Independent Offices Appropriations Act
CFC's--Chlorofluorocarbons	IQA--Integrated Quality Assurance
EC--European Community	NMFS--National Marine Fisheries Service
ERS--Economic Research Service	NOAA--National Oceanic and Atmospheric Administration
FAA--Federal Aviation Administration	NRC--Nuclear Regulatory Commission
FAS--Foreign Agricultural Service	OMB--Office of Management and Budget
FCC--Federal Communications Commission	PTO--Patent and Trademark Office
FDA--Food and Drug Administration	SENASA--National Service of Animal Health of Argentina
FSIS--Food Safety and Inspection Service	VS--Veterinary Services
GAO--General Accounting Office	
GPO--Government Printing Office	

Appendix 2

Individual Country Experiences with User Fees

Argentina

Dr. Luis Barcos, president of Argentina's meat inspection agency SENASA, wrote the following unofficial translation to Mr. Gary Groves, Agricultural Counselor:

“Those establishments qualified by SENASA for slaughter, storage, or elaborate products, subproducts and derivatives of animal origin, have to pay a monthly fee for the Inspection Service they get from SENASA. This fee is established through the regulations of *Fees for Inspection Services* that prescribes the charges for the different activities in the establishments. Its annual income is approximately US\$40,000,000 from which US\$27,000,000 come from fees paid for slaughtered animal by specie (US\$1.85 per head slaughtered bovine, US\$1.37 slaughtered pork, US\$0.013 per slaughtered chicken or hen, etc.) and the rest, US\$13,000,000 from activities like deboning, cold cut elaboration, cooked meat, offal, tinned meat, etc. where fees are determined according to the volume of production. There is no discrimination in current fees regarding the destination of the elaborated products (domestic consumption or exports) as they affect slaughtering activities or elaboration in its productive level, paying for each of them. Current income is used to cover direct or indirect expenses originated from the inspection service, consequently in order to finance the activity, support from users is requested. There exist other fees for other types of control and related to establishments' activities such as residues, chloros, anabolics, etc. (laboratory) and for doing the administrative paperwork. The inspectors are present at all times during the slaughter process.”

Australia

In the mid-1980's, the Australian Government issued a policy decision that required all agencies, wherever possible, to recover fees for services provided. Many of these agencies had provided non-chargeable, or community obligation services, which were funded by tax dollars. Each agency had to determine how to recover the cost of its services.

The Agriculture Quarantine and Inspection Service (AQIS), a unit of the Australian Department of Primary Industries and Energy, is responsible for functions per-

formed by FSIS and by APHIS in the United States. Because of the differences in functions, the AQIS established different methodologies for user fees for export meat inspection and animal-related activities.

When the concept of cost recovery was introduced, the AQIS needed to determine the best method to capture 100 percent of the cost to inspect export meat products. Australia's Treasury Department developed a program for cost recovery which would reflect what it considered the true cost of inspection. This agency's true cost includes inspector and veterinarian salaries plus any additional overhead the AQIS incurs, such as benefits, headquarters staff, and facilities expenses. User fees were introduced to the meat industry on a gradual basis. A 40-percent user fee was introduced, followed by an increase to 60 percent, and to 100 percent in 1991. It was determined that a phased-in approach would help offset adverse reactions from the industry.

Brian Macdonald of the Meat Inspection Division of the AQIS responded to FSIS in a November 19, 1997, FAX as follows:

“In the Australian domestic sector a registration fee paid by individual registered establishments to the respective State government meat regulatory authority is used to finance government inspection activity. This fee supports registration, standard setting, legislation, accrediting and approving auditors, applying sanctions, etc. Registered establishments must have a fully comprehensive HACCP-based Quality Assurance (QA) system approved by the State regulatory authority. Within this framework, companies employ their own fully qualified meat inspectors. The system is subject to regular audit by accredited third party auditors approved by the State.”

User fees relating to quarantine services are based on a fee schedule which includes hourly, daily, and unit rates. Brian Macdonald also wrote:

“The Australian export sector is supervised by the Federal Government and operates on a full cost recovery basis. This system involves government on-plant veterinary officers and meat inspectors and is supervised and audited by senior technical managers (veteri-

nary circuit supervisors). A charging regime is maintained which includes: fee for service for inspectors, on-plant veterinarians and senior technical managers audits; a registration fee for the program's overhead structure; and documentation fees.

“The cost of the inspection program is fully recovered from user fees. User fees are developed in consultation with industry. Broadly speaking, fees are set to finance the cost of the specific service to which they relate.

“Government inspectors are present at all times during slaughter operations in all export abattoirs in Australia. Government inspectors are not necessarily present at all times during processing operations. The Australian export meat industry has access to QA arrangements approved and supervised by AQIS which enable certain further processing operations to occur without the immediate and constant supervision of government inspectors. However, a peripatetic presence is maintained on a daily basis where importing country authorities require it.”

Resistance to user fees existed in both the inspection force and the export meat companies. For the inspectors, heavier workloads occurred as a result of a reduction in force, and the AQIS experienced a significant increase in inspector absenteeism. AQIS executives met with union officials to rectify some of the problems that were occurring. One recommendation, which was adopted, included providing inspectors with additional opportunities for advanced skill training in HACCP, microbiology, and other disciplines. Inspectors are now referred to as Food Standard Officers with a wide range of skills to offer.

Companies resisted the user fee charges and tried to modify inspection standards, including facility layout, equipment usage and overtime. The AQIS was pressured to reduce the size of the inspection service and establish a minimum number of inspectors on-site at plants. AQIS conducted time and motion studies to determine appropriate staffing levels for different plants by considering the number of cattle slaughtered, facility layout, and the time it takes to complete all aspects of a task. The size of the inspection service was reduced as a means to offer companies a minimum number of inspection staff required at plants.

In November 1995, Australia's meat inspection program received a bad review from FSIS: 6 of 30 establishments were rated unacceptable and 8 plants received a

marginally acceptable rating. AQIS then reevaluated its staffing levels and determined that three senior positions were needed. It is also reconsidering if too many inspection personnel were let go, if there is a need for additional manpower, and how it would be funded. In addition, the Agency has asked the Australian inspection authorities to develop a plan to address the problems that were encountered. The Australian government is trying to work through these problems while maintaining a 100 percent user fee program.

Although the intent of issuing user fees was to achieve 100 percent cost recovery, the AQIS has still not been able to balance its budget, and it receives approximately 12 percent from the community service obligation (taxes). Meat plants are directly billed for services they receive and are charged penalties if payment and fees are not received on time.

In January 1998, the meat processing industry and John Anderson, the Minister for Primary Industries and Energy, announced a new agreement to defer \$2.9 million in increases in recovery of AQIS meat inspection fees in future financial years and to reduce fees by \$3.6 million for 1997/98 and by \$1.4 million for 1998/99 (AQIS bulletin, 1997). Mr Anderson is quoted as saying:

“These changes mean the revenue collected from industry will be the same as in 1996/97 and will give AQIS an opportunity to implement the Government's reforms to reduce the impost on industry even further.”

Small establishments are expected to benefit from this new fee structure, including establishments that do not slaughter meat and establishments that process for emerging export industries such as pork, deer, and ostrich (*AQIS Bulletin*, 1997).

Canada

Canada did not respond to our information request, so our discussion below is taken from the March 1996 “User Fee Study” developed by FSIS.

In May 1995, the Canadian Government started to impose user fees to its many clients, including the meat industry (98 percent of Canadian meat production is subject to inspection). A primary reason for imposing such fees was to reduce or recover some operating costs, and to develop alternative means for delivering inspection services. Agriculture and Agri-food Canada

reviewed all inspection programs, and cost sharing agreements were negotiated with all sectors. The fees are the result of numerous consultations with the meat industry pursuant to the Food Production and Inspection (FBIP) Business Alignment Plan, 1992. Five cost recovery initiatives were established, and the Meat Inspection Regulations, 1990, were amended to include the following user fee categories: overtime, inspection of registered establishments, label and recipe registration, importation, and exportation. The user fees are based on an hourly rate for overtime and set fees for the other categories.

Although the Canadian user fee program is relatively new, these amendments should help the Department to meet its fiscal obligations by reducing inspection services. The new fees also reflect the principle that the primary beneficiary of the service, the meat industry, should be expected to pay for the service. Agriculture and Agri-Food Canada will conduct annual reviews of the fees and services identified in the amendments, and industry groups will have an opportunity to participate in the reviews.

Denmark

Patrick Sondergaard of the Royal Danish Embassy wrote the following FAX to Karen Stuck, FSIS:

“Actual expenses for government inspection for meat/poultry slaughter and processing for product produced for the domestic market are entirely financed by the producing company. The same applies for production for exports. User fees paid in accordance with the above cover the actual costs of veterinary inspection of meat and poultry. Cost recovery is assessed according to actual expenses. Government inspectors are present at all times during meat and poultry slaughter operations. In meat processing establishments approved for exports, government inspectors have until now been present at all times during meat and poultry processing operations. However, the Danish Veterinary and Food Administration expects that with the implementation of approved own check programs based on the Hazard Analysis and Critical Control Points (HACCP) system, the requirements for the permanent presence of government inspectors will be relaxed and adjusted according to the approved own checks programs, the product range, and the volume of production of the individual establishments. Whatever the level of the above men-

tioned adjustment, government inspectors would however still be required to visit establishments at least once a day.”

Great Britain

R.A. Bell, Head Veterinary International Trade, Ministry of Agriculture, Fisheries, and Food (MAFF) wrote the following FAX to C. Scott, FSIS:

“In Great Britain, the production of red meat intended for sale for human consumption is covered by the Fresh Meat (Hygiene and Inspection) Regulations 1995 (as amended). These Regulations implement in Great Britain the EC Fresh Meat Directive 91/497/EEC (as amended by 95/23) and require all meat to be produced to a single standard of hygiene under veterinary supervision. The day to day responsibility for meat inspection and hygiene enforcement in licensed premises is carried out by the Meat Hygiene Service (MHS), an Executive Agency of MAFF.”

From the MHS home page (9/27/96):

“The Meat Hygiene Service (MHS) was launched on 1 April 1995. It took over from some 300 local authorities responsibility for enforcing meat hygiene, inspection and animal welfare and slaughter legislation in 1,875 licensed fresh meat premises in England, Scotland, and Wales. Public health and animal welfare are safeguarded in plants by Official Veterinary Surgeons and Meat Inspectors working on inspection teams. The MHS headquarters is based in York and there are six Regional Offices located in Cambridge, Cardiff, Edinburgh, Taunton, Wolverhampton and York.”

Bell again reports the following:

“Under the Regulations all licensed slaughterhouses must be supervised by an Official Veterinary Surgeon (OVS) of the MHS. Their principal role is to ensure that meat intended for sale for human consumption is produced hygienically and to the standards set down in law.”

The OVS is also responsible for the overall supervision of the plant including ante-mortem inspection of all animals, the post-mortem inspection of all carcasses and, although it is not directly required under the Regulations, the actual slaughter process. The OVS is assisted by one or more fully trained and qualified meat

inspectors. Their main duty is to assist with the post-mortem inspection of carcasses, although they may also assist the OVS with other activities.

Statutory requirements for the production of poultry meat, which implement the Poultry Meat Directive 92/116/EEC are laid down in the Poultry Meat, Farmed Game Bird Meat and Rabbit Meat (Hygiene and Inspection) Regulations 1995. Inspection requirements are similar to those for fresh meat. Once again, the MHS is responsible for enforcement in licensed premises.

Under European Community law, Great Britain is obliged to recoup costs for meat inspection from the industry. Directive 85/73/EEC (as amended) requires meat inspection charges to be made via a standard charge per animal, or by charging actual costs. The Directive is implemented in Great Britain by the Meat (Hygiene, Inspection and Examination for Residues Charges) Regulations 1995. Additional charges may also be raised for the completion of veterinary health certificates to accompany exports of consignments. These charges are again subject to cost recovery from the industry.

Japan

Mike Woolsey, Agricultural Attache for Foreign Agricultural Service in Tokyo, reported in his November 17, 1997, memo to FSIS that:

“There are currently about 2,600 publicly employed inspectors working in a total of 302 meat and poultry slaughtering plants in Japan. Government meat inspection is financed by both public funds and user fees. Salaries of the 2,600 meat inspectors are financed by the Government of Japan and paid through local prefectural governments. In addition, user fees are collected by local prefectural governments to cover expenses incurred by testing materials and overhead. The Government of Japan sets the upper ceiling for the fee that may be charged by each local government, which is currently set at 1,300 yen per head. Within the above limit, the actual fee is determined at the discretion of each local government. Operating hours of the plant is normally one day shift (i.e., 8:00-5:00). Inspections are carried out during operating hours of the plant.”

Korea

Korea reports that it does not rely on user fees.

Mexico

Octavio Carranza responded to Lewis Stockard, FAS/Mexico, as follows:

“Inspection is financed through SAGAR for the plants authorized to export meat and meat products. Some plants which are not authorized to export are under the supervision of SAGAR-approved veterinarians whose payment is covered by that company. State supervisors in charge of reviewing the activities of both official and approved veterinarians are paid by SAGAR. The fees paid for the approved veterinarians are 100 percent covered by the company. In the case of veterinarians responsible for the establishments authorized to export, the inspection cost are covered by SAGAR. The fees charged to users in the case of approved veterinarians are determined on the basis of the established (official) minimum salary. The inspectors remain in the establishment during its operations.”

New Zealand

New Zealand's Meat Act requires the Ministry of Agriculture (MAF) to recover the costs of government inspection for slaughter and for processing from the licensed processor. This applies both to the domestic and export markets. MAF is in charge of both ante- and post-mortem inspection. Sandra Newman, Executive Manager at MAF, wrote to Maxine Yule, Agricultural Assistant at the U.S. Embassy in Wellington:

“User fees cover not only the direct costs of inspection, but also the indirect costs such as the cost of negotiations with importing countries, setting standards, audit of compliance, and the overhead costs of running the Ministry of Agriculture, including the appropriate share of the costs of the Director General and his team, legal costs, accommodation, depreciation and capital charge, etc.”

There is a complex budgeting and costing process which determines the appropriate costs for each financial year. MAF works on a basis of being transparent and accountable to the users for expenditure and consults each year with the representatives of each sector on these costs. For product on the New Zealand domestic market, the requirements of the Meat Act and Regulations must be met, i.e., full time presence is required. Poultry for the domestic market is currently regulated under the Food Act administered by the Ministry of Health and full time presence is not specified under this Act.

For product destined for domestic consumption, once it leaves the slaughter and dressing process, the Food Act applies and full time presence is not specified (processing refers to all operations after completion of slaughter and dressing). Product for export is handled in accordance with the Meat Act and according to importing country requirements.

New Zealand's Technical Directive 95/160 states that poultry processing is controlled by two departments, the Ministry of Health and MAF, and:

“The premises can alternate between each jurisdiction during a processing day. This situation does not allow MAF to investigate an audit approach to surveillance. Technical Directive 95/130 specifies inspection and surveillance requirement for poultry and states that in the absence of ante- and post-mortem inspection certification, inspectors are required to be on the premises during the slaughter and processing of poultry product covered by other kinds of MAF health certification. Poultry product for export requires both ante- and post-mortem inspection.”

Appendix table 1-Verbatim responses from foreign agencies to user-fee survey

Country	How do you finance inspection for meat and poultry slaughter and processing?	Are user fees used for any or all of the financial support?	Are inspectors present at all times? When are inspectors present?
Argentina	Those establishments qualified by SENASA for slaughter, storage, or elaborate products, subproducts and derivatives of animal origin, have to pay a monthly fee for the Inspection Service they get from SENASA. This fee is established through the regulations of "Fees for Inspection Services" that prescribes the charges for the different activities in the establishments.	Its annual income is approximately US\$40,000,000 from which US\$27,000,000 come from fees paid for slaughtered animal by specie (US\$1.85 per head slaughtered bovine, US\$1.37 slaughtered pork, US\$0.013 per slaughtered chicken or hen, etc.) and the rest, US\$13,000,000 from activities like deboning, cold cut elaboration, cooked meat, offal, tinned meat, etc. where fees are determined according to the volume of production. There is no discrimination in current fees regarding the destination of the elaborated products (domestic consumption or exports) as they affect slaughtering activities or elaboration in its productive level, paying for each of them. Current income is used to cover direct and indirect expenses originated from the inspection service, consequently in order to finance the activity, support from users is requested. There exist other fees for other types of control and related to establishments' activities such as residues, chloros, anabolics, etc (laboratory) and for doing the administrative paperwork.	The inspectors are present at all times during the slaughter process.

continued--

Appendix table 1-Verbatim responses from foreign agencies to user-fee survey—continued

Country	How do you finance inspection for meat and poultry slaughter and processing?	Are user fees used for any or all of the financial support?	Are inspectors present at all times? When are inspectors present?
Australia	For the domestic sector, a registration fee is paid by individual registered establishments. For the export sector, a charging regime is maintained which includes: a fee for service for inspectors, on-plant veterinarians and senior technical managers audits, a registration fee for the program's overhead structure, and documentation fees.	User fees are developed in consultation with industry and are set to finance the cost of the specific service to which they relate.	Inspectors are present at all times during slaughter operations in all export abattoirs but not necessarily during processing operations.
Canada	In May 1995, the Canadian government started to impose user fees to its many clients, including the meat industry. Agriculture and Agri-food Canada reviewed all inspection programs and cost sharing agreements were negotiated with all sectors. The fees are the result of numerous consultations with the meat industry pursuant to the Food Production and Inspection (FBIP) Business Alignment Plan, 1992. Five cost recovery initiatives were established, and the Meat Inspection Regulations, 1990, were amended to include the following user fee categories: (1) overtime, (2) inspection of registered establishments, (3) label and recipe registration, (4) importation, and (5) exportation.	The user fees are based on an hourly rate for overtime and set fees for the other categories.	No information received.

continued

Appendix table 1-Verbatim responses from foreign agencies to user-fee survey—continued

Country	How do you finance inspection for meat and poultry slaughter and processing?	Are user fees used for any or all of the financial support?	Are inspectors present at all times? When are inspectors present?
Denmark	Actual expenses for government inspection for meat/poultry slaughter and processing for product produced for the domestic market are entirely financed by the producing company. The same applies for production for exports.	User fees cover the actual costs of veterinary inspection of meat and poultry. Cost recovery is assessed according to actual expenses.	Government inspectors are present at all times during meat and poultry slaughter operations. In meat processing establishments approved for exports, government inspectors have until now been present at all times during meat and poultry processing operations. However, the Danish Veterinary and Food Administration expects that with the implementation of approved own check programs based on the Hazard Analysis and Critical Control Points (HACCP) system, the requirements for the permanent presence of government inspectors will be relaxed and adjusted according to the approved own checks programs, the product range, and the volume of production of the individual establishments. Whatever the level of the above mentioned adjustment, government inspectors would however still be required to visit establishments at least once a day.
Germany	No information provided, but EC directives require member states to rely on user fees.	No information provided, but EC directives require member states to base fees on actual expenses or on uniform charges per carcass.	No information provided.

 continued--

Appendix table 1-Verbatim responses from foreign agencies to user-fee survey—continued

Country	How do you finance inspection for meat and poultry slaughter and processing?	Are user fees used for any or all of the financial support?	Are inspectors present at all times? When are inspectors present?
Great Britain	Under European Community law, Great Britain is obliged to recoup costs for meat inspection from the industry.	<p>Directive 85/73/EEC (as amended) requires meat inspection charges to be made via a standard charge per animal, or by charging actual costs. The Directive is implemented in Great Britain by the Meat Hygiene (Inspection and Examination for Residues Charges) Regulations 1995.</p> <p>Additional charges may also be raised for the completion of veterinary health certificates to accompany exports of consignments. These charges are again subject to cost recovery from the industry.</p>	<p>The day to day responsibility for meat inspection and hygiene enforcement in licensed premises is carried out by the Meat Hygiene Service (MHS), an Executive Agency of Ministry of Agriculture Fishery and Food. Under the Regulations all licensed slaughterhouses must be supervised by an Official Veterinary Surgeon (OVS) of the MHS. Their principal role is to ensure that meat intended for sale for human consumption is produced hygienically and to the standards set down in law.</p> <p>The OVS is also responsible for the overall supervision of the plant including ante-mortem inspection of all animals, the post-mortem inspection of all carcasses and, although it is not directly required under the Regulations, the actual slaughter process. The OVS is assisted by one or more fully trained and qualified meat inspectors. Their main duty is to assist with the post-mortem inspection of carcasses, although they may also assist the OVS with other activities.</p>
Japan	Government meat inspection is financed by both public funds and user fees. Salaries of the 2,600 meat inspectors are financed by the Government of Japan and paid through local prefectural governments. In addition, user fees are collected by local prefectural governments to cover expenses incurred by testing materials and overhead.	The Government of Japan sets the upper ceiling for the fee that may be charged by each local government, which is currently set at 1,300 yen per head. Within the above limit, the actual fee is determined at the discretion of each local government.	Operating hours of the plant is normally one day shift (i.e., 8:00-5:00). Inspections are carried out during operating hours of the plant.

continued--

Appendix table 1-Verbatim responses from foreign agencies to user-fee survey—continued

Country	How do you finance inspection for meat and poultry slaughter and processing?	Are user fees used for any or all of the financial support?	Are inspectors present at all times? When are inspectors present?
Korea	No user fees	Not applicable	Not applicable
Mexico	Inspection is financed through SAGAR for the plants authorized to export meat and meat products. Some plants which are not authorized to export are under the supervision of SAGAR-approved veterinarians whose payment is covered by that company. State supervisors in charge of reviewing the activities of both official and approved veterinarians are paid by SAGAR.	The fees charged to users in the case of approved veterinarians are determined on the basis of the established (official) minimum salary.	The inspectors remain in the establishment during its operations.
New Zealand	The costs of government inspection for meat and poultry slaughter and processing are covered by the licensed processor. This applies both to the domestic and export markets. User fees cover not only the direct costs of inspection, but also the indirect costs such as the cost of negotiations with importing countries; setting standards; audit of compliance; and the overhead costs of running the Ministry of Agriculture—including the appropriate share of the costs of the Director General and his team; legal costs; accommodation; depreciation and capital charge etc.	There is a complex budgeting and costing process which determines the appropriate costs for each financial year. MAF works on a basis of being transparent and accountable to the users for expenditure and consults each year with the representatives of each sector on these costs.	A full-time presence is required for meat in the domestic market but not for poultry in the domestic market. For product destined for domestic consumption, once it leaves the slaughter and dressing process the Food Act applies and full time presence is not specified. Product for export is handled in accordance with the Meat Act and according to importing country requirements

Source: ERS/FSIS Survey of Meat Inspection Agencies