THE BUSINESS CASE FOR USING E-COMMERCE DATA TO MANAGE PRODUCT ADMISSION AT INTERNATIONAL BORDERS

Guidance for Government Agencies and Interested Supply Chain and Trade Companies

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ITDS Product Information Committee

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EXECUTIVE SUMMARY

Economic realities are driving governments, importers, and brokers to look for new efficiencies in managing products at international borders. The search for solutions that effectively deliver product visibility – structured information that succinctly and accurately identifies or characterizes incoming products – has remained a frustrating and elusive goal for governments. But now it appears a strategic break-through is within reach, 15 years in the making as the product of maturing business-to-business electronic commerce functionality.

The PIC committee has conducted three pilot studies to validate the business case for using e-commerce information to improve product visibility with three different product sets. The results of the pilot studies show that the use of global product identification, global classification codes, and industry-standard e-commerce product catalogs in the United States (US) has obvious mission benefits for participating government agencies (and thus US consumers), as well as definitive cost savings for the government and the private sector. In short, the business cases show that:

The use of global trade item numbers (GTINs) can reduce the volume of consumer toy products subject to examination by the Consumer Product Safety Commission (CPSC) **by 75 percent or more** – a game-changing advantage for any resource-challenged participating government agency (PGA). And when global product classification codes are used in combination with GTINs, CPSC can expect the volume of products subject to examination to be reduced by another 5 percent, for **a total reduction of 80 percent**. The resulting decrease in number of toy product examinations could create an estimated **$16.8 million in savings** for toy importers and **$775,000 in cost savings** for CPSC over five years. The estimated return on investment is over $8 for every dollar invested. And these benefits can be accomplished using the new Customs and Border Protection (CBP) Automated Broker Interface PG Record Set to be implemented in 2012.

KEY FINDING: The use of GTINs can reduce the volume of consumer toy products to be examined **by 75 percent or more.**

KEY BENEFIT: The decrease in toy product examinations could create an estimated **$16.8 million in savings for toy importers** and **$775,000 in cost savings for CPSC** over 5 years.

The positive impact of global product classification codes was borne out further by the cut flower pilot study. Here CBP and the USDA Animal Health Inspection Service (APHIS) expect the use of UNSPSC global flower codes to reduce the average time required to inspect incoming floral shipments **by 50 percent, paring a typical two-hour inspection back to about a single hour**. **Savings to CBP and the trade are estimated to be $2.7 million** over 5 years, with implementation costs less than $350,000. Estimated return on investment is about $7 for every dollar invested. The use of the global floral code allows critical admissions processes to be automated at last – ensuring accurate sampling plans and import volume reports and speeding perishable cut flowers and greenery on their way to florists and consumer outlets.

KEY FINDING: The use of global floral codes could **reduce CBP inspection time by 50 percent** and ensure accurate sampling and import volume reporting.

KEY BENEFIT: **Savings to CBP and the trade are estimated to be $2.7 million** over 5 years, with implementation costs under $350,000.

Finally, a third business case demonstrated the cost feasibility of using cloud-based, industry-standard product catalogs as PGA sources of complex product classification information. The USDA Food Safety Inspection Service (FSIS) confirmed that **the complex characteristics of minimally processed and fully processed meat and poultry products can be accurately determined from product classification information downloaded from electronic product catalogs** currently used to support business-to-business e-commerce. FSIS can consume this cloud-based product information so that meat and poultry **exporters will not need to separately enter GTIN and product classification information about their exported products into**

government information systems. And **exporters could save $1.6 million over five years** by not having to resolve mis-documented shipments or to separately enter product information into the FSIS information system. Return on investment is estimated to be $5.6 for every dollar invested. Using the cloud service, FSIS product information automatically stays updated in the background – keeping product descriptions and export certificates accurate, which help keep foreign markets open for US meat and poultry exports.

KEY FINDING: The complex characteristics of meat and poultry products **can be accurately determined from product classification information in industry-standard electronic product catalogs.**

KEY BENEFIT: **Exporters could save $1.6 million** over five years by not having to resolve mis-documented shipments or to enter product information into the FSIS information system.

Details about each of the business case pilots are provided in the report. Because of the positive return on investment for all three business cases, the Product Information Committee believes that all PGAs should carefully examine how e-commerce product identification and classification codes could be used to improve product management at US borders. Interested PGAs and trade sectors should proceed with implementation efforts using the new Automated Broker Interface PG Record Set to be implemented in 2012 and share results with the ITDS and other PGAs.

The business case net value, that is, the value of the hard and soft benefit created minus the cost of implementation, for each product pilot is summarized below in Figure 1.

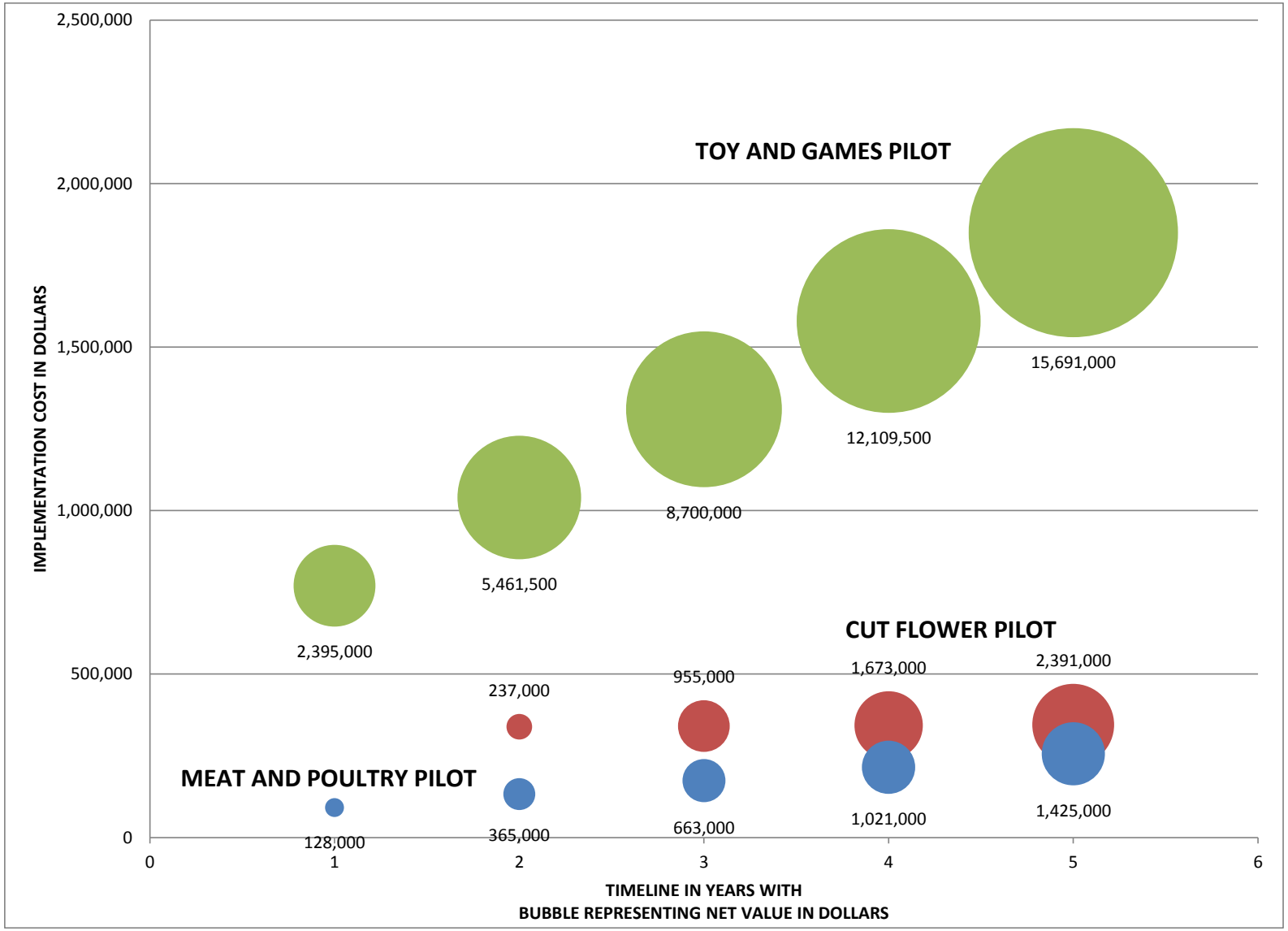

Figure 1: Net Value Overview for Each Pilot Business Case

PURPOSE

The purpose of this report is to examine the costs and benefits of using industry-standard e-commerce data and cloud-based product catalogs to provide better product visibility to government agencies in order to support the efficient and effective admission of products at international borders. This report describes pilot results obtained for three product sets – toys and games, cut flowers, and meat and poultry. The scope of the pilots is intended to provide a high-level, order-of-magnitude evaluation of the business case. These pilot assessments were unfunded projects performed by subject matter experts from government and industry. Although the report's contributors have confidence in the findings as presented, an exhaustive study using additional resources to more precisely measure benefits and cost would likely provide a more precise or specific business case analysis.

THE CHALLENGE

Imagine the responsibility of protecting millions of citizens in countries from unsafe consumer products. This is the mission accepted by government agencies every day around the world as they screen product shipments arriving at their borders. They must make prompt and well-informed decisions to admit or deny product entry to safeguard citizens while minimizing interference with legitimate cross-border product movement.

Although government inspectors have been traditionally challenged by the volume of imports, tightening government budgets suggest that future government success may well depend on finding new strategies for managing the admissions process. To address this interest, federal government agencies in the U.S. International Trade Data System (ITDS) created the Product Information Committee (PIC) in 2009 to explore ways to create additional product visibility to improve the efficiency and effectiveness of product admissions at international borders.

The Situation Today: Today government inspectors rely heavily on the Harmonized Tariff Schedule (HTS) codes and text-based product descriptions when making admissions decisions. The HTS codes, used primarily to set tariff rates, often lack sufficient product granularity to support reliable product jurisdiction and admissions decisions. Narrative product descriptions can be useful, but have limitations – they are free-form text entries with non-standard abbreviations that require manual review and targeting. These limits in product visibility may cause agencies to not fully screen an imported product that may be unsafe. More commonly, it can unnecessarily delay the release and increase the cost of importing an otherwise low-risk product. In some cases, inspectors take time to physically examine a container of products, only to realize the targeted product is not under their jurisdiction and that other agencies should be conducting the examination. This can be due to misclassification by the broker under an inaccurate HTS code, but equally due to an HTS code with broad jurisdictional review (e.g., HTS 870321, Passenger Vehicles of < 1,000cc, falls under the jurisdiction of three US government agencies, the Department of Transportation, the Environmental Protection Agency, and CPSC).

Government-Unique Standards are Expensive and Inefficient for Trade: Governments could respond by creating their own new product classification and identification systems for use by suppliers and importers. However, government-unique code lists are expensive to create and maintain and would be inefficient for importers to use. Each product would have to be mapped to the appropriate characterization code for that country, and that code would only be good for products entering one country. Additional

inefficiencies could be created if multiple government agencies in the same country each promulgated their own government-unique coding systems for the same products. A product entering one country would need to be mapped to one or more government codes and if shipped to other countries would need to be mapped to different codes – not a scenario conducive to efficient international trade.

Create Product Visibility using Global e-Commerce Standards: Instead, the approach advocated by the ITDS Product Information Committee is to have governments adopt the use of global product classification codes, global product identification numbers, and cloud-based product information catalogs established by industry for efficient product trading and global supply chain movement. This approach should be evaluated in such a way that its adoption complements and supports other CBP initiatives such as entry simplification and the PGA record set. The value of using e-commerce standards can be summarized as three value propositions, each with their own complementary benefits.

VALUE PROPOSITIONS

The three basic value propositions were defined for the use of e-commerce data in the admission of products at international borders in a committee report issued December 2010[1]. In summary, these three factors are:

1. To reduce costs to importers of complying with government regulation, **Government should use, whenever feasible, industry-established and maintained global product classification standards** to improve its ability to accurately determine jurisdictional authority and assess the inherent level of risk in product admission.

Global product classification codes such as United Nations Standard Product and Service Codes (UNSPSC) provide "structured" product category codes that Participating Government Agency (PGA) computers can process to increase product visibility beyond that provided by the Harmonized Tariff Schedule codes. These classification codes are in the public domain and maintained through the use of a global voluntary-consensus standards process.[2] Their use would improve government targeting efficiency and reduce the number of cargo holds, which in turn reduces importer costs and minimizes disruptions in product movement.

2. **Government should allow the trade to use globally unique product identification numbers**, known as GS1 Global Trade Item Numbers (GTINs), which are already used by industry to identify the brand and model of products in the supply chain, so that government agencies can also recognize the brand and model of imported products and release those known to be low-risk, ideally in advance of arrival.

GTINs and Universal Product Codes (UPCs), a variation of GTINs, allow PGAs to consistently recognize products by manufacturer and model and reuse previous admissions experience with that product to quickly release products known to be

[1] "Guidance for Using E-Commerce Data to Manage Product Admission at International Borders". ITDS Product Information Committee, December 2010. www.itds.gov

[2] More information about global classification codes can be found in the first PIC report, "Leveraging e-Commerce Product Data for Smarter Cargo Management". ITDS Product Information Committee, April 2009. www.itds.gov

low-risk or to hold or deny entry to products known to be high-risk or non-compliant. See Appendix G for an overview of global identification and classification terms and concepts.

3. **The government should use standards-based, electronic product catalogs** to access authoritative, structured product classification and descriptive information that can be used in computer-based screening to efficiently admit consumer-oriented, finished goods.

Governments can become consumers of structured product information from industry-standard, electronic product catalogs operating as a cloud-based service. With these catalogs, already in use by suppliers and retailers to support business-to-business e-commerce, government can efficiently access up-to-date, detailed product information published by the product owner and make better informed, prompt decisions about potentially high-risk products. It would be the hope that the provision of a GTIN for products published in these catalogs will reduce or eliminate the need for other product data over time.

OVERVIEW OF PILOTS

To gain practical insights to the benefits and costs of implementing these value propositions for products sets of common interest to governments, the committee conducted three pilot studies. Pilot product sets were selected based on interest shown by different PGAs and trade members with an interest in representing products that were related to government interests in public health, public safety, and pest management. A workgroup of interested PGA, trade, CBP, and standards representatives was created for each of the three product sets (See Appendix A). The product sets and the role of government in product admission for each pilot study were:

1. **Toy and Game Products:** The US Consumer Product Safety Commission is responsible for protecting the public against unreasonable risks of injury from consumer products.

2. **Cut Flower Products:** US Customs and Border Protection is responsible for ensuring that all admissible imported cut flowers and greenery are free of pests that may endanger native plants or the welfare of American agriculture. In conjunction with the USDA Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine (PPQ) program, the inspection findings are used to make future risk assessments about fresh cut floral products, growers, other countries' plant protection programs, and what level of product inspection is necessary in accordance with product risk factors and trends in inspection findings.

3. **Meat and Poultry Products:** The USDA FSIS is responsible for ensuring that all exported US meat and poultry products are accurately documented to meet the public health regulatory requirements of the importing country.

Pilot Validation of Value Proposals: It is important to understand the differences in product risk factors, inspection requirements, and industry use of e-commerce identification and classification codes for each pilot, as these differences affect the value of each pilot in validating the three value propositions. The fundamental differences in the pilots and their impact on validating the utility of the three value propositions are characterized in Table 1.

PRODUCT SET CHARACTERISTIC	TOY AND GAMES PILOT	CUT FLOWERS PILOT	MEAT AND POULTRY PILOT
UTILITY OF GLOBAL CLASSIFICATION CODES	USEFUL	USEFUL	USEFUL
PRODUCT VISIBILITY PROVIDED BY HTS CODES	LOW **(20 HTS codes for over 1000 product types)**	LOW **(17 HTS codes for 200 flower and greenery types)**	LOW **(130 HTS codes for 500 product types)**
UTILITY OF GLOBAL PRODUCT IDENTIFICATION	VERY USEFUL	LIMITED	USEFUL
REGULATORY INSPECTION REQUIREMENTS	DISCRETIONARY INSPECTION OF PRODUCT SAFETY **(About 0.5% of shipments are physically examined)**	ALL SUBJECT TO INSPECTION FOR PESTS **(About 100% of shipments are physically examined)**	ALL EXPORTS REQUIRE CERTIFICATION **(100% of shipments are documented)**
INDUSTRY USE OF GTINs	HIGH	VERY MINIMAL	HIGH
UTILITY OF GLOBAL PRODUCT CATALOGS	USEFUL	UNNECESSARY	VERY USEFUL
INDUSTRY USE OF PRODUCT CATALOGS	MODERATE **(69,948 GTINs Published)**	NONE **(459 GTINs Published)**	MODERATE **(89,215 GTINs Published)**
LEVEL OF RISK FACTOR COMPLEXITY	COMPLEX **(2 to 6 Factors)**	SIMPLE **(2 Factors)**	COMPLEX **(5 to 10 Factors)**

Table 1: Product Set Characteristics by Pilot Product Set

The use of global product classification had value for all three pilots because HTS codes by themselves do not provide complete product visibility. The use of GTINs also had value for all three product sets, but for different reasons. The strongest value was for toys, where inspections are discretionary and past admission history could be used by the PGA to minimize targeting of known products. But GTINs are still useful for meat to "look-up" exported product attributes in product catalogs and for flowers to distinguish products with different components that must be sampled as separate inspection units upon arrival to the US.

PGA subscription to industry-standard product catalogs could be highly useful for meat and possibly for toys, but not necessarily for cut flowers. In the case of flowers, the two product risk factors (country of origin and type of flower) can be readily provided in the entry record, so government use of an electronic catalog for cut flower products provides minimal advantage. However, meat and poultry and toy products have complex risk factors that cannot readily be provided in the entry record, so downloading product characteristics from electronic catalogs could have high potential value to government when evaluating admission of these product sets.

Benefit Characterization: Benefits were categorized as Hard, Soft, or Intangible. "Hard" benefits are tangible and measurable, directly impact the real cost of performing an activity, and represent the primary business case for choosing to implement or not implement a proposed value initiative. Examples of hard benefits are headcount reductions, legacy information system retirements, reductions in fees paid, and one-time or recurring cost savings. "Soft" benefits indirectly impact the cost of performing an activity, and have secondary value in shaping the primary business case for choosing to implement or not implement a proposed value initiative. Examples of soft benefits are cost avoidance, productivity gains through increased efficiencies, customer satisfaction, and strategic value. Finally, there are "Intangible" Benefits that cannot be readily quantified financially, but may contribute real value nevertheless. Examples of these benefits are improved customer satisfaction or enhanced confidence in decision making. Because of their difficulty in being measured, intangible benefits are not included in the cost-benefit analysis.

Limitations of the Pilot Results: These pilots were undertaken by interested PGAs and trade members to determine the likely costs and benefits of using global classification and product identification to improve product visibility. The analyses presented in this report provide a complete and reasonably detailed understanding of the business case for trade and government for these three pilots. However, it is important to note that these pilots were conducted by subject matter experts as unfunded projects. Therefore, these pilots did not involve professional contracting support, rigorously detailed data collection methods, and an exhaustive analysis of data collected. Nevertheless, the pilot members believe that the results reported provide reasonably complete and accurate, order-of-magnitude business case results. After reviewing the results reported here, trade members or PGAs may choose to fund more exhaustive business case pilots if they believe such investments are necessary and justified before committing to an implementation effort.

The pilot reviews were conducted as "table-top" reviews as the pilot teams concluded that real-time product inspection would add little or no value to the validation of the value propositions. The use of normal document review procedures provided sufficiently

conclusive evidence of the potential value, and real-time inspections were intentionally not conducted because the pilot teams sought to avoid creating unintentional jeopardy to participating trade partners in the event that pilot inspections delayed the normal release of product shipments.

Extrapolation of Pilot Results: The sections that follow will provide an overview of each pilot, along with fundamental benefit and cost estimates. These assessments provide a reliable order-of-magnitude estimate of utility for the use of e-commerce data and systems for these product types at US borders. However, the extrapolation of projected benefits to other product sets and other borders should be weighed in accordance with the degree of similarity between the pilot and the target product set in terms of risk factors and the regulatory authority's requirements and business processes.

TOY AND GAME PILOT

OVERVIEW

Product Set Scope: The pilot product set consisted of leisure, sports, and educational products intended for children. The HTS codes for products in this target set are principally 9503.00 (Children's Toys) but also included 9504.90 (Games), 3407.00 (Modeling Pastes), and 8523.59 (Semiconductor Media).

Product Volume: In 2010, over 850,000 entry lines of toys and games with a declared entry value of $14.5 billion were imported into the United States.

Government Role in Admission: The Consumer Product Safety Commission (CPSC) is responsible for protecting the public against unreasonable risks of injury from consumer products as authorized by the Consumer Product Safety Act of 1972. In FY10, the CPSC had a staff of 500 and an annual budget of nearly $120 million to carry out its mission.

Current PGA Inspection Process: CPSC accesses information on entries for incoming products in advance of their arrival at the port. Through document reviews, the CPSC investigator decides which products potentially present the highest risk to consumers and target products for detention and examination. If a product fails to be cleared as a result of its examination, samples of the product are collected for lab testing and a final determination is made by a subject matter expert as to its admissibility. Products are usually held at the port until the final determination is made. However, product admission is generally on a "green-light, red-light" basis, i.e., by default toy shipments are admitted unless CPSC targets a specific product in a shipment for examination.

WHAT WE EVALUATED

To What Extent Can GTINs Improve Inspection Efficiency? The pilot team sought to evaluate the extent to which the use of GTINs would allow previous admission decisions to be used when a product, previously evaluated, is presented in a new entry. The ability to use a globally unique product identification number to recognize products previously evaluated would allow CPSC to focus targeting efforts on products known to be of higher risk by prior examination or on potentially high-risk products for which there is no inspection history. By using GTINs, CPSC would be able to recognize low-risk products with a known

inspection history and promptly release these products in accordance with previous admissions decisions that have shown these products to be safe for consumers.

Can Global Classification Codes Improve Product Targeting? CPSC staff currently use, among other available information, the HTS code and other narrative descriptions to screen incoming imports for products that may pose a risk to consumers. However, products vary significantly by type (board games, toy sports equipment, electronic games, dolls, action figures, riding toys, models, etc.) and targeted age group. Even with recent HTS code revisions to reflect three classes of targeted age groups, product characterization for some HTS codes is still very general. The pilot sought to evaluate the descriptive value of supplementing the general descriptive value of the HTS code for toys with GS1 Global Product Classification (GPC) Codes, an eight-digit "brick" code denoting a product category (e.g., 10005133 for Board Games [Non Powered]), and eight-digit GPC brick attribute-value pairs that define specific traits for each product category (e.g., 20000045 [Consumer Lifestage] = 30011504 [Younger than 3 Years]). (An overview of global classification brick and brick attribute terms and concepts is provided as Appendix G.) By using global product classification codes, CPSC seeks to improve product targeting efficiency and increase the examination yield, which is the ratio of non-compliant product findings to total inspections conducted.

HOW THE EVALUATIONS WERE PERFORMED

Shipping Reports Used to Determine the Level of Product GTIN Repetition in Entries: The trade partner, Hasbro, provided product information for 30 containers shipped into the US. Containers were intentionally selected by Hasbro to provide a variety of typical products and multiple products per container. All product information was provided from Hasbro's shipping records and their Master Product Data system, with the exception of the GPC brick attribute-value pairs, which had to be manually determined for each product on the worksheet. To assess how commonly products repeat in entries over time, Hasbro was able to create reports from their shipment records that measured the number of times that products in the 30 pilot containers reoccurred in other entries during calendar year 2010. Because data was only readily available for a 12-month period, there was no way for the pilot team to measure seasonal product repetition across multiple years. Each additional year of GTIN admission history would be expected to generate additional value as the historical base of product admission by GTIN becomes larger and larger.

Product Worksheets Used to Determine Value of Global Product Classification Codes: Because trade and government production systems are not yet configured to capture and process classification codes and GTINs, a three-part worksheet was developed to evaluate the product classification codes. The product worksheets were then presented to three CPSC investigators at

different locations and each was asked to record, given the product information on the sheet, whether in their judgment the product MUST be Examined (a potentially high risk product that should be examined), PREFERRED to be Examined (a normal risk product subject to document checks), or DID NOT NEED Examination (a low risk product for immediate release). Investigators assumed that an average importer, not specifically Hasbro, was importing these products into commerce. Each investigator was given a set of three worksheets. Investigators used the last three columns of each worksheet to record their judgments regarding the need to exam each product. The first worksheet completed by the investigators was as follows:

							USING HTS WITH INVOICE INFO		
BOL #	CONTAINER #	ENTRY LINE NUMBER	HTS CODE OF PRODUCT (As Reported)	HTS DESCRIPTION	PRODUCT NAME/DESCRIPTION (on Invoice)	# CARTONS/ CASES	MUST BE EXAMINED	PREFERRED EXAMINATION	DID NOT NEED EXAM
HJSCHKG113591400	TGHU926700	1	8543.70.9650	ELECTRICAL MACHINES TV PLUG IN GAMES THAT DOES NOT KEEP SCORE OR HAVE COMPETITION.	PLA ALPHIE DATABOTS ASST	425			

Table 2: Toy Worksheet with Standard Entry Product Data

After completing the first worksheet, investigators were then asked to complete a second worksheet that had the same information as the first worksheet except that the GPC Code and Description was added to the sheet. The second worksheet had the following appearance with the new GTIN and GPC code data columns highlighted:

											USING HTS WITH GPC BRICK CODE		
BOL #	CONTAINER #	ENTRY LINE NUMBER	HTS CODE OF PRODUCT	HTS DESCRIPTION	PRODUCT NAME/DESCRIPTION (on Entry Line)	GTIN # OF PRODUCT (NA = Not Available)	GPC CLASSIFICATION CODE	GPC CODE NAME	GPC CLASSIFICATION DESCRIPTION	# CARTONS/ CASES	MUST BE EXAMINED	PREFERRED EXAMINATION	DID NOT NEED EXAM
HJSCHKG113591400	TGHU926700	1	8543.70.9650	ELECTRICAL MACHINES TV PLUG IN GAMES THAT DOES NOT KEEP SCORE OR HAVE COMPETITION.	PLA ALPHIE DATABOTS ASST	00653569558637	10005159	Developmental/ Educational Toys Other	Includes any products that can be described or observed as a developmental or educational toy designed for learning through recreational activities, where the user of the schema is not able to classify the products in existing bricks within the schema. Excludes all currently classified non-powered and powered Developmental/Educational Toys.	425			

Table 3: Toy Worksheet with Entry Product Data and GPC Classification Code

Finally, investigators were provided with one more worksheet, this one with all the data on the second worksheet as well as the GPC brick attribute value pairs that described additional features of products. The second and third worksheets were constructed to allow the pilot team to evaluate the value of the GPC codes alone and in combination with the GPC attribute-pairs. The third worksheet appeared as follows with the new GPC attribute-value column highlighted:

												USING HTS WITH GPC BRICK CODE AND DESCRIPTORS		
BOL #	CONTAINER #	ENTRY LINE NUMBER	HTS CODE OF PRODUCT (As Reported)	HTS DESCRIPTION	PRODUCT NAME/DESCRIPTION (on Entry Line)	GTIN # OF PRODUCT (NA = Not Available)	GPC CLASSIFICATION CODE	GPC CODE NAME	GPC CLASSIFICATION DESCRIPTION	GPC DESCRIPTOR VALUES	# CARTONS/ CASES	MUST BE EXAMINED	PREFERRED EXAMINATION	DID NOT NEED EXAM
HJSCHKG113591400	TGHU926700	1	8543.70.9650	ELECTRICAL MACHINES TV PLUG IN GAMES THAT DOES NOT KEEP SCORE OR HAVE COMPETITION.	PLA ALPHIE DATABOTS ASST	00653569558637	10005159	Developmental/ Educational Toys Other	Includes any products that can be described or observed as a developmental or educational toy designed for learning through recreational activities, where the user of the schema is not able to classify the products in existing bricks within the schema. Excludes all currently classified non-powered and powered Developmental/Educational Toys.	Consumer Lifestage = 3 Years and Up	425			

Table 4: Toy Worksheet with Entry Product Data, GPC Classification Information, and GPC Attribute-Value Pairs

Because investigators assessed products independently, investigator preferences and the changes in those preferences were evaluated as independent result sets. Therefore, since there were 142 invoice lines across all 30 containers, and three investigators independently designated their preference for each invoice line, the total number of investigator designations for each product information set is 426 (142 product lines X 3 investigator observation sets).

WHAT WE OBSERVED

Toy Products Commonly Repeat in Entries over Time: Reports provided by Hasbro show that carton-level products present in the 30 pilot containers were offered for admission in 171 entries during the 12-month period March 2010 through February 2011. In this sample, 68 percent of the different invoice-line products repeated at least once, and products that repeated on average repeated 4.23 times in other entries from that same importer over a 12-month period.

If the amount of product repetition in this sample is a reasonable estimate of product repetition for major toy importers, then one can expect to see product repetition in approximately 75 percent of the entry lines (288 / 388, where for 100 unique products, 32 percent of the unique products, or 32 entry lines of products, will not repeat [100 X 0.32 = 32], and 68 percent of the unique products, or 68 entry lines of products, occur for the first time to repeat later [100 X 0.68 = 68], and 288 entry lines of products represent the repeating products [(1 X 0.68) X 4.23 = 288]. **As CPSC builds its knowledge base of previous admissions decisions, quickly three-quarters of all toy entries can be managed as a product with a known admissions history, and targeting efforts can be focused on the remaining one-quarter of toy entries that have no admissions history or have no GTIN.** Table 5 shows the projections for toy product repetition at the line-entry level over a 12-month period at different entry line volumes using the pilot results as a basis for estimation:

TOTAL ENTRY LINES OVER 12 MONTHS*	UNIQUE INVOICE-LEVEL PRODUCTS PRESENT	ENTRY LINES OF PRODUCTS THAT DO NOT REPEAT (32%)	ENTRY LINES OF PRODUCTS THAT DO REPEAT (68%)	ENTRY LINE WITH A PRODUCT PREVIOUSLY PRESENTED (4.23 PER REPEATING PRODUCT)
PILOT RESULTS				
171	44	14	30	127
PROJECTIONS				
388	100	32	68	288
1,000	258	82	176	744
5,000	1,287	410	878	3,713
10,000	2,575	819	1,755	7,425
50,000	12,873	4,096	8,777	37,127

*Total of non-repeating and repeating entry lines may not exactly equal total entry lines over 12 months due to rounding.

Table 5: Pilot Product Repetition and Projections of Product Repetition in Entries over 12-Months

Global Product Classification Significantly Improved Product Visibility for Toy Products: The level of desired examination for the products in the containers selected by Hasbro, as determined by three CPSC investigators using the HTS code and narrative product descriptions; the HTS and GPC Code; and the HTS, GPC Code, and GPC Brick Attribute value pairs is shown below in Figure 2.

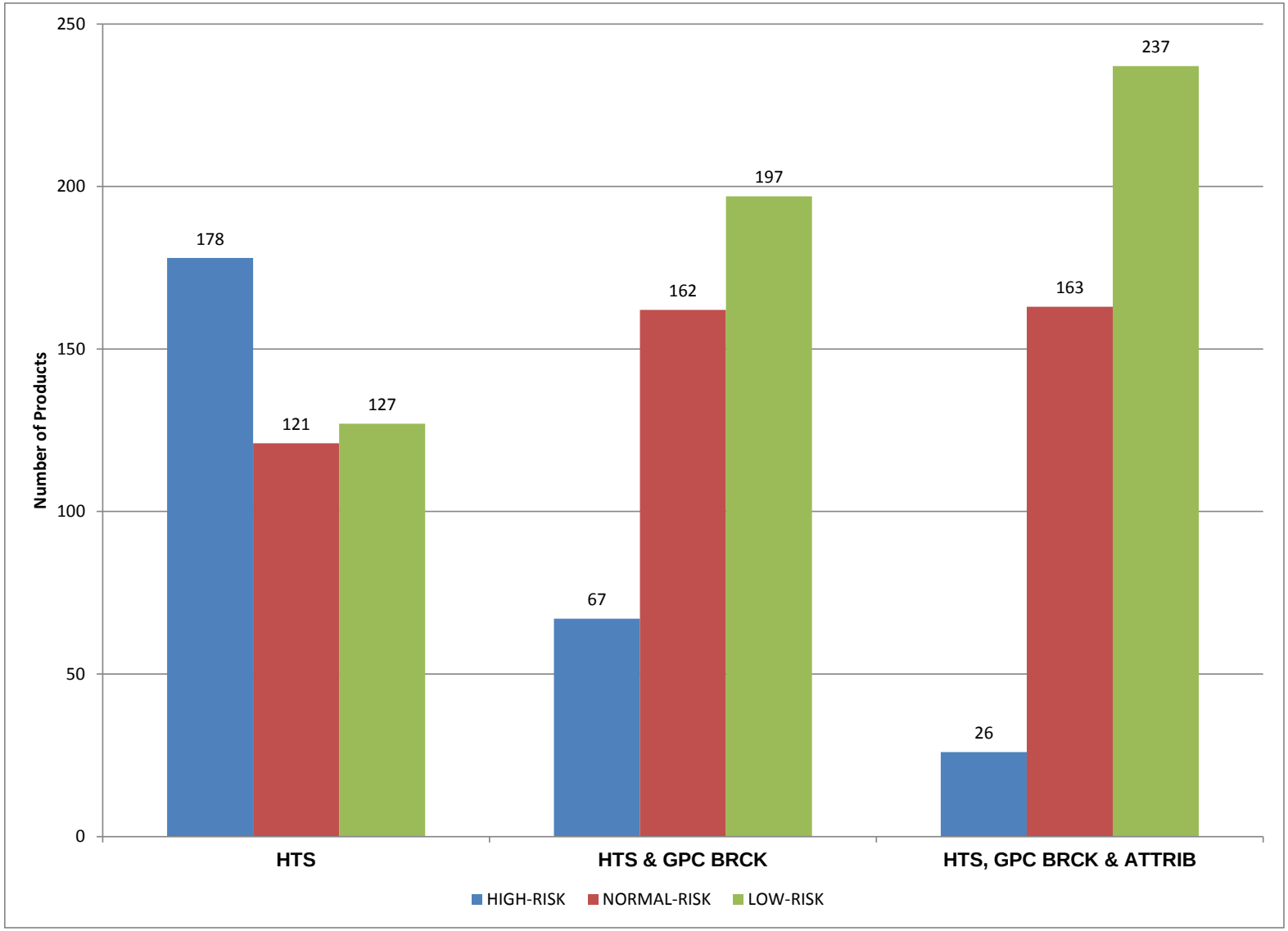

Figure 2: Product Risk Level Designation by CPSC Investigators Using HTS Only, HTS with GPC Brick, and HTS with GPC Brick and Attributes

When CPSC investigators used the GPC code in addition to the HTS code to evaluate the level of inspection that an imported product should have, **the number of investigator designations at the EXAMINE AS HIGH RISK level dropped from 178 to 67, a decrease of 111**. This decrease was a 62 percent reduction in the number of HIGH-RISK designations compared to using the HTS code alone (111 of 178), and **a 26 percent reduction in the number of all products subject to examination** (111 of 426). Using these pilot results, similar projections for the reduction in high-risk product designations can be estimated for other numbers of invoice-level toy products as shown in Table 6.

INVOICE-LEVEL PRODUCTS	HIGH-RISK DESIGNATIONS WITH HTS CODE	HIGH-RISK DESIGNATIONS WITH GPC CODE	**REDUCTION** IN HIGH-RISK DESIGNATIONS WITH GPC CODE
PILOT RESULTS			
	178	67	111
% of High-Risk Designations			**62%**
% of All Designations			**26%**
PROJECTIONS			
1,000	418	157	261
5,000	2,089	786	1,303
10,000	4,178	1,573	2,606
50,000	20,892	7,864	13,028
100,000	41,784	15,728	26,056
1	0.42	0.16	0.62
100	42	16	62

Table 6: Pilot Reductions in High-Risk Product Designations and Projections Using GPC Codes

Although the use of GPC Brick attributes in combination with the GPC and HTS codes reduced the number of high-risk designations by another 10 percent of all products subject to examination, the benefit projections for the toy pilot business cases will be calculated on the use of the GPC code alone *without* the GPC brick attributes. The GPC code can be submitted as part of the CBP entry using the PG record set, whereas the use of GPC brick attributes involves the use of global product catalogs as described later in the meat and poultry pilot. Although the use of GPC Brick attributes adds additional product visibility and should be considered for product sets where suppliers commonly publish product descriptions in global catalogs, only the use of the GPC codes is assumed for the toy business cases presented in this report.

THE VALUE OF THE BENEFITS

The business case benefits for the use of GTINs and GPC codes are defined below. The assumptions used to estimate government and trade costs and benefits are summarized in Appendix C.

HARD BENEFITS – Improved Inspection Efficiency through GTIN Identification and Reuse of Admission History:

The results of the pilot suggest that about 75 percent of all line entries imported in one year by a major toy importer are products that have been previously presented for admission. Assuming that a major importer enters about 5,000 entry lines a year, the pilot results suggest that about 1,290 unique products will be presented by this importer for entry. Of these, 32 percent or 413 entry lines will not repeat again for the year. The remaining 68 percent of the unique products, or 877 products, will repeat again at least one time as an entry line in another entry, and on average these products will repeat 4.23 times, or as 3,710 entry lines as shown in Figure 3. These repeating entry lines represent products that have been previously presented for admission and require limited or no further examination once reviewed.

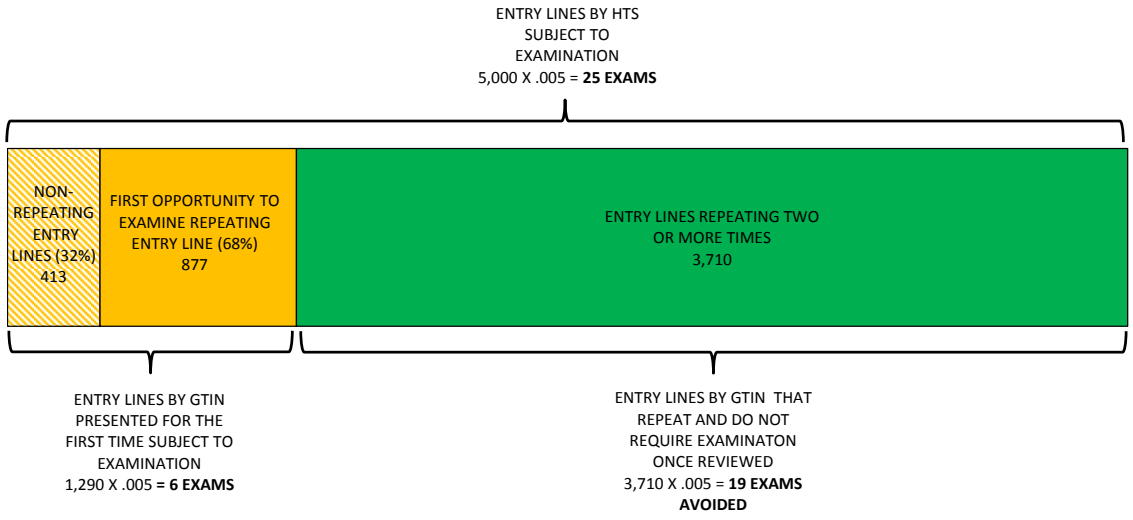

Figure 3: Estimated Annual Product Repetition for One Major Toy Importer

When managing entry lines only by HTS code, all 5,000 entry lines have no admissions history and average examination rates will result in about 25 examinations annually for one major importer. But when managing entry lines by GTIN, the government has the opportunity to reuse the previous admission action as a default action for about 3,700 entry lines. Using the known product identity of these repeating entry lines, the government no longer needs to target these products as unknown products, reducing the number of examinations for the importer by 19 over a one-year period [3710 entry lines X .005 rate of examination = 19 examinations]. The value of this benefit can be quantified as follows:

Trade savings due to a reduced number of examinations when managing products by GTIN for one major importer with 5,000 entry lines:

- Reduction in number of examinations for one toy importer = 3,710 repeating entry lines X 0.005 [examination frequency] = 19 examinations avoided by using GTINs X $1500 [importer cost per examination]) = $28,500.

TRADE FIVE-YEAR HARD BENEFIT FOR TEN IMPORTERS USE OF GTINS $28,500 X 10 [importers] X 5 [recurring] = $1,425,000

Furthermore, the 75 percent frequency of toy product line repetition used in the business case models should prove to be a conservative estimate. The actual rate of line entry repetition will likely be higher for three reasons:

1) After the first year of implementation, the first occurrence of products presented in Year 1 will be products with known admissions histories in all successive years, which will raise the percentage of repeating products in subsequent years for that importer to about 90 percent;

2) The benefit does not include entry lines presented by secondary importers such as Wal-Mart and Toys”R”Us that import these same toy products that are identified with the same GTINs; and

3) The pilot results exclude year-to-year seasonal repetition of product shipments, which when included may further increase the frequency of product repetition.

The benefits above could not be factored into the business case models presented here because of the limitations in the scope of the pilot data.

HARD BENEFITS – Improvements in Targeting Efficiency Using Global Product Classification:

Improvements in product visibility through global product classification will create savings for importers due to a reduction in examinations of products that only appear to be high risk when evaluated only in the context of the HTS code. For a major toy importer with 5,000 entry line items a year that are not identified by GTIN, the CPSC must evaluate the product risk of all 5,000 entry lines by HTS code and description. But when the importer provides GPC codes for each entry line, the number of products designated as potentially high-risk by investigators will decrease by about 1,300, which is 26% of all 5,000 products subject to examination, in accordance with the pilot results.

For a major toy importer that identifies products by GTIN, the CPSC must only evaluate the 1,290 unique products that do not have an admissions history when first presented. When the importer provides GPC codes for these 1,290 products, the number of potential high-risk products will decrease by 26%, or 335 products. With an average examination frequency of 0.5 %, the importer can avoid 1 to 2 examinations (1.68) for the 335 entry lines downgraded from high-risk products through the use of the GPC code as shown in Figure 4.

The business case scenarios will assume that major importers implement the use of both GTINs and GPC codes so that reductions in examinations will not be double counted for the use of GTINs and then again for the use of GPC codes.

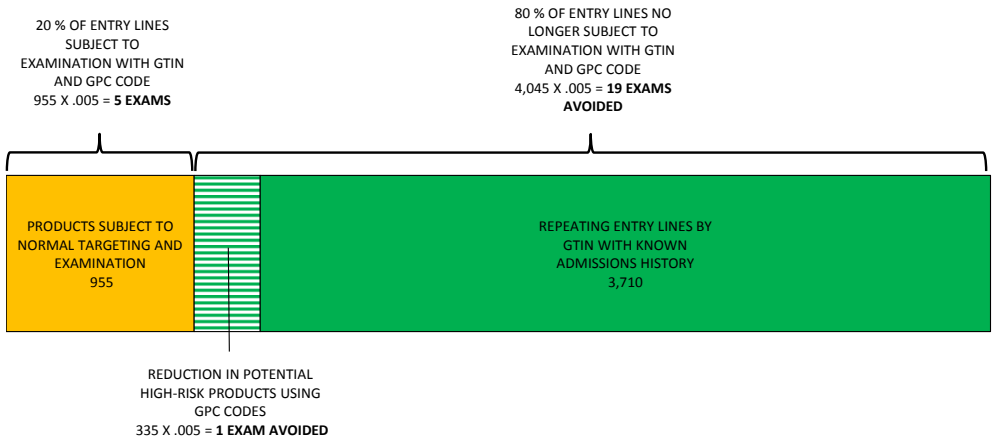

Figure 4: Estimated Reduction in Potentially High-Risk Products Using GPC Code in Combination with GTINs for One Major Toy Importer

Trade savings due to a reduced number of examinations using GPC Codes in combination with product identification by GTIN for one major importer with 5,000 entry lines:

- Reduction in number of potentially high risk entry line items is 413 non-repeating products + 877 first-time occurrence products = 1,290 products with no admissions history X 0.26 [percentage reduction in high-risk products] = 335 X 0.005 [examination frequency] = 1.68 examinations avoided X $1500 [importer cost / examination] = $2,520

TRADE FIVE-YEAR HARD BENEFITS FOR GPC USE IN COMBINATION WITH GTINS FOR TEN MAJOR IMPORTERS: $ 2,520 [annual savings in reduced inspections for one importer] X 10 [number of importers] = $25,200 X 5 [recurring] = $ 126,000

SOFT BENEFITS – Improved Inspection Efficiency through GTIN Identification and Reuse of Admission History:

The ability of the government to reuse admissions histories for those products identified by GTINs has a major impact on government efficiency. Because known products are not held for document reviews to confirm their low-risk nature or examined unnecessarily, the limited examination resources of government can be focused squarely on products not known to have been previously examined or released. Products without an admissions history are those most likely to yield non-compliant products and are the best target for improving CPSC inspection efficiency and safeguarding consumers. As established for hard trade benefits above, a major importer that enters 5,000 entry lines in a year will have about 3,710 entry lines with a previous admissions history.

Government cost avoidance due to reduced number of product examinations through the use of GTINs for one major importer:

- Reduction in number of invoice lines requiring discovery or examination for one major importer = 3,710 entry lines with known admissions history X 0.005 [examination frequency] = 19 examinations avoided X $69 [the PGA Investigator Cost for one examination as 1.5 hr. X $46[3]]) = $1,311

[3] As of 2011, the pay rate of a CPSC investigator stationed in the US is estimated to be a grade 13 step 3 with an hourly rate of $35.17. With an average benefit cost of 30%, the hourly salary and benefit of a typical CPSC investigator would be $45.72.

GOVERNMENT FIVE-YEAR SOFT BENEFITS FOR USING GTINS WITH TEN IMPORTERS $1,311 X 10 [number of importers] = $13,110 X 5 [recurring] = $65,550

SOFT BENEFITS – Improvements in Targeting Efficiency Using Global Product Classification:

For the government, the actual number of examinations performed by CPSC is not expected to decrease, but to shift to other less visible toy products or to other consumer product types where GTIN identification and GPC codes are not used. The benefit of the improved targeting to the PGA will be an increase in product targeting efficiency, as the improved product visibility allows CPSC to focus in on the truly high-risk products. The benefit of the improved targeting efficiency is calculated by the decrease in examinations no longer performed as a result of the improvement in targeting through the use of the GPC codes. This number constitutes a soft cost-avoidance benefit for the government, and is calculated as follows:

Government cost avoidance due to a reduced number of examinations using GPC codes (in combination with product identification by GTIN) for one major importer with 5,000 entry lines:

- Reduction in number of potentially high risk entry line items is 413 non-repeating products + 877 first-time occurrence products = 1,290 products with no admissions history X 0.26 [percentage reduction in high-risk products] = 335 X 0.005 [examination frequency] = 1.68 examinations avoided X $69 [the PGA Investigator Cost as1.5 hr. X $46]) = $116

GOVERNMENT FIVE-YEAR SOFT BENEFITS FOR GPC USE IN COMBINATION WITH GTINS FOR TEN MAJOR IMPORTERS: $116 X 10 [number of importers] = 1,160 X 5 [recurring] = $ 5,800

INTANGIBLE BENEFITS — Improved Inspection Efficiency through Product Model Identification and Reuse of Admission History:

Prompt, Paperless Release of Known Products: The government's use of GTINs to recognize products with a known inspection history and promptly release (or reject) these products in accordance with previous admissions decisions, ideally in advance as paperless releases, creates a benefit for the trade. Advance knowledge of product release creates more predictable product delivery dates for importers and receivers. However, this benefit cannot be readily be assigned a dollar value. Therefore,

although a true benefit, the advance knowledge of release will be considered an intangible benefit for the trade. Additional analysis to estimate the dollar value of this benefit should be attempted as part of future live pilot implementation efforts.

Brand Name Protection: Other intangible benefits include the reduction of brand damage associated with a recall of a product already in commerce. By removing non-compliant products more effectively at the ports, the trade can avoid recalls as non-compliant products have a higher probability of being discovered before they enter the domestic supply chain.

Improvements in Consumer Safety: Lastly, consumers will benefit from reductions in injuries and deaths that will result from a dramatic improvement in product targeting efficiency by CPSC at time of importation. By providing CPSC with supplemental information that improves product visibility at time of entry, the public, and particularly children in this instance, will experience reduced exposure to health and safety hazards in consumer products, which will translate to lives saved.

THE COST OF CREATING THE BENEFITS

To create the benefits above, the government must revise its targeting procedures to incorporate the GPC product classification codes and GTINs for product identification. This will require report revisions for investigators performing document checks and changes in targeting programs. The estimated one-time cost of the report revisions is $250,000 and an estimate of revising targeting procedures and training investigators to use the revised reports is $250,000. Minimal changes in recurring costs will be expected once revised targeting processes are in place.

GOVERNMENT COSTS:

The PGA cost of implementing new or revised targeting reports that incorporate global classification information and use GTINs to consider past admission decisions for previously reviewed products are estimated as follows:

- One-time cost of PGA report revisions: $250,000
- One-time cost of implementing revised targeting changes: $250,000
- Recurring cost of PGA report maintenance: $20,000

PGA FIVE-YEAR COST: $ 250,000 [one-time report revision] + $250,000 [one-time targeting procedure revision] + $20,000 X 5 [recurring report maintenance] = $ 600,000.

Note that the benefits of this business case were calculated on the basis of using the GPC code *without* the GPC brick attributes, so the cost of a government subscription to global product catalogs is not part of this business case.

TRADE COSTS:

To create the benefits above, importers will need to include the GPC code and GTIN number of product items in the CPSC PG record set of the CBP entry. The GTIN of a product is readily known by product suppliers and would be passed to non-supplier importers through electronic EDI messages that are already configured to include this data element. Through discussions with software providers, the cost to brokers to update their entry software to support the PG record set that allows the GTIN and GPC code to be added to the entry line record is included in the cost of normal software maintenance. Although the cost of these changes will vary for each importer and supplier, the pilot team estimates that the costs can be approximated as follows.

- One-time cost of program changes to include GTINs and GPC codes in the entry record for one importer: $25,000

TRADE FIVE-YEAR COST FOR ONE IMPORTER: $25,000 X 10 [number of importers] = 250,000

Again, the benefits of this business case were calculated on the basis of using the GPC code *without* the GPC brick attributes, so the cost of trade members publishing product GPC brick attributes is not part of this business case.

THE COST-BENEFIT ANALYSIS

Cost-benefit is summarized over five years for two implementation scenarios: The top ten major toy importers (about 58 % of import volume) implementing in Year 1 with an average of 49,900 line entries per importer a year; and the top 50 major toy

suppliers (about 71 % of import volume) with the top 10 importers implementing the first year and 10 of the next 40 importers implementing each year from the second year through the fifth year with an average of 12,200 line entries per importer a year[4].

TOY BUSINESS CASE 1: CPSC AND TOP 10 TOY IMPORTERS IMPLEMENTING GTINs AND GLOBAL PRODUCT CODES

With the top ten toy importers providing GTINs and Global Product Classification Codes for each entry line number, after five years the total benefit is $15.8 million, the total cost is $850,000, and the net value is $15.0 million with a strong 1792% return on investment (ROI) as shown in Table 7.

% of INDUSTRY ADOPTION:	58 %	FIVE-YEAR ROI[5]:	1762%	PAYBACK IN:	YEAR 1
TOTAL BENEFIT:	**$ 15,825,000**	**TOTAL COST**	**$ 850,000**	**TOTAL NET VALUE**	**$ 14,975,000**
TRADE:	$ 15,130,000	TRADE:	$ 250,000	TRADE	$ 14,880,000
PGA:	$ 695,000	PGA:	$ 600,000	PGA	$ 95,000
ANNUAL ROI METRICS	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**
CASH INFLOW (BENEFIT)	3,165,000	3,165,000	3,165,000	3,165,000	3,165,000
CASH OUTFLOW (COST)	770,000	20,000	20,000	20,000	20,000
NET VALUE	2,395,000	3,145,000	3,145,000	3,145,000	3,145,000
CUM NET VALUE	2,395,000	5,540,000	8,685,000	11,830,000	14,975,000
SIMPLE ROI	311%	701%	1072%	1425%	**1762%**

Table 7: Business Case Metrics for Top 10 Toy and Game Importers Using GTINs and Global Product Codes

[4] The average number of line entries for the top 10 and next 40 toy importers is based on actual 2010 import statistics and does not include express couriers.

[5] Return on Investment is calculated as an arithmetic return in accordance with $ROI = \frac{(Total\ Benefit - Total\ Cost)}{Total\ Cost}$ and expressed as a percentage.

The payback period occurs in the first year with a steady return on investment across all years, with a return of $17.6 dollars for every dollar invested by the end of 5 years as shown in Figure 5.

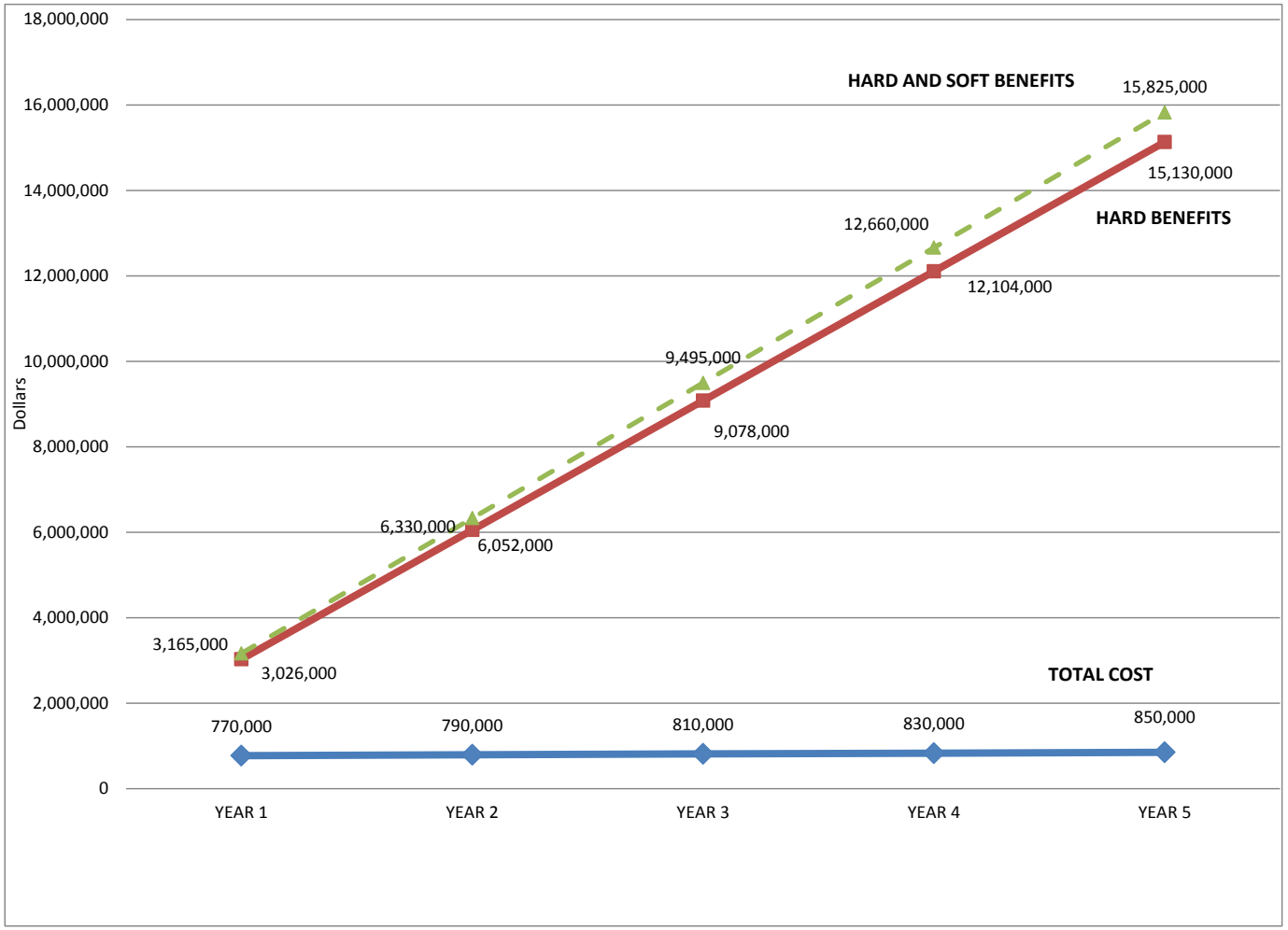

Figure 5: Cumulative Cost and Benefits for Toy and Games Products for PGA and the Top Ten Toy Importers Over Five Years

TOY BUSINESS CASE 2: CPSC AND TOP 50 TOY IMPORTERS IMPLEMENTING GTINs AND GLOBAL PRODUCT CODES

With the top 50 toy importers (representing about 71 percent of the total toy import volume) implementing the use of GTINs and Global Product Classification Codes for each entry line number (where 10 importers implement every year), after five years the total benefit is $17.5 million, the total cost is $ 1.8 million, and the net value is $15.7 million with an 848% return on investment as shown in Table 8.

% of INDUSTRY ADOPTION:	**71 %**	**FIVE-YEAR ROI:**	**848%**	**PAYBACK IN:**	**YEAR 1**
TOTAL BENEFIT:	**$ 17,541,000**	**TOTAL COST**	**$ 1,850,000**	**TOTAL NET VALUE**	**$ 15,691,000**
TRADE:	$ 16,765,000	TRADE:	$ 1,250,000	TRADE	$ 15,515,000
PGA:	$ 775,000	PGA:	$ 600,000	PGA	$ 175,000
ANNUAL ROI METRICS	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**
CASH INFLOW (BENEFIT)	3,165,000	3,336,500	3,508,000	3,679,500	3,851,000
CASH OUTFLOW (COST)	770,000	270,000	270,000	270,000	270,000
NET VALUE	2,395,000	3,067,000	3,238,000	3,410,000	3,581,000
CUM NET VALUE	2,395,000	5,462,000	8,700,000	12,110,000	15,691,000
SIMPLE ROI	311%	525%	664%	766%	**848%**

Table 8: Business Case Metrics for Top 50 Toy and Game Importers Using GTINs and Global Product Codes

The payback period occurs in the first year with a steady return on investment through Year 5 as shown in Figure 6. The soft benefits are those of the PGA through the cost avoidance created by conducting fewer examinations of products that have a known admissions history or that are determined to be low-risk products through use of the GPC code.

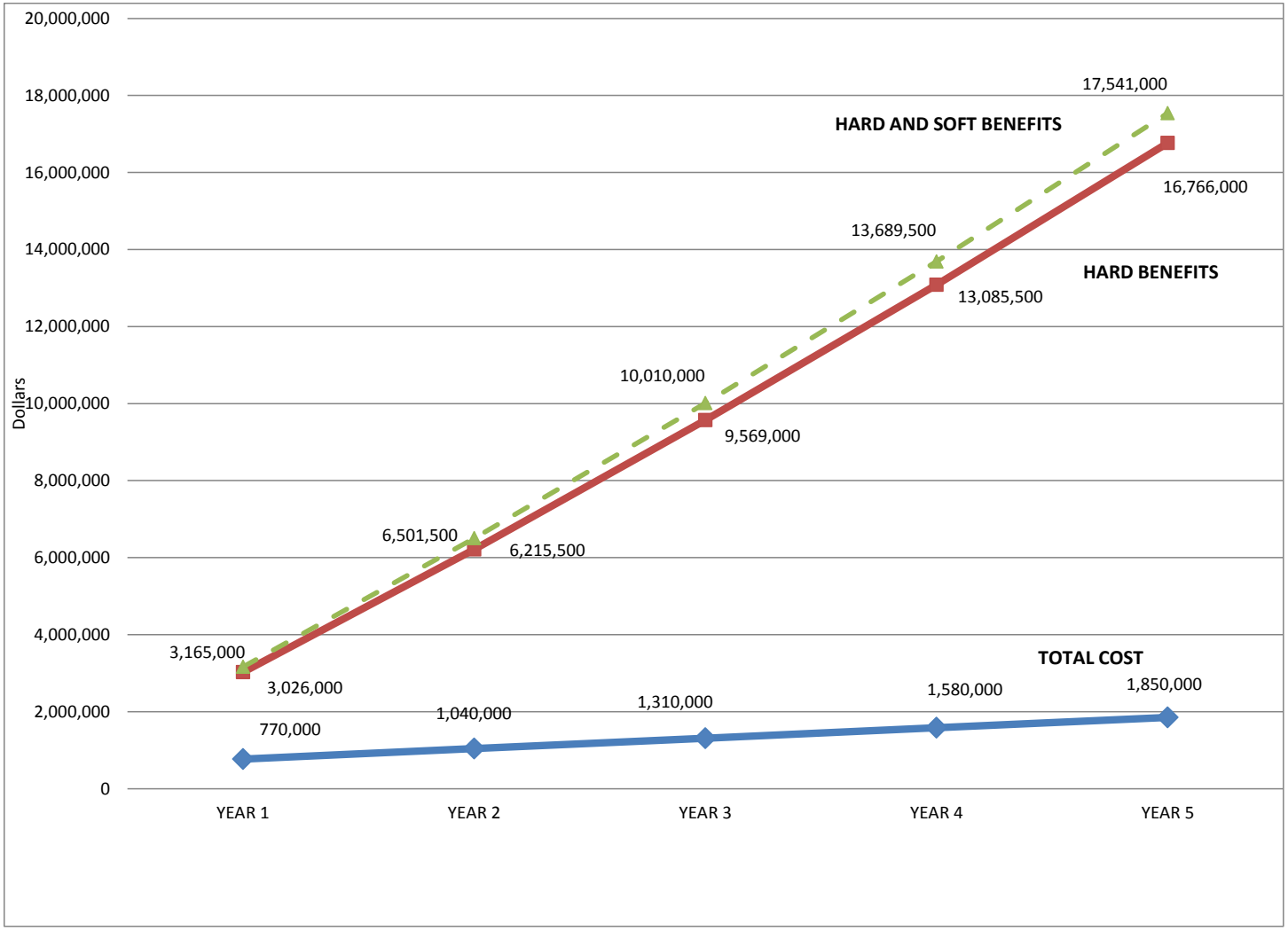

Figure 6: Cumulative Cost and Benefit for Toy and Games Products for PGA and the Top 50 Toy Importers Over Five Years

Finally, the major components of each cost and benefit for the PGA and the top 50 toy importers over a five-year period are shown in Figure 7. The net value of the business case is $15.7 million at the end of 5 years with 8.5 dollars in benefits returned for every dollar invested. The five-year ROI is not as high as in the first scenario, as 40 additional trade members incur implementation costs and the average number of entry lines per importer is significantly lower for the top 50 importers than for the top 10 importers. Also noteworthy in this business case, are the intangible benefits including the protection of public health and lives that could not be quantitatively calculated for inclusion in the business case numbers.

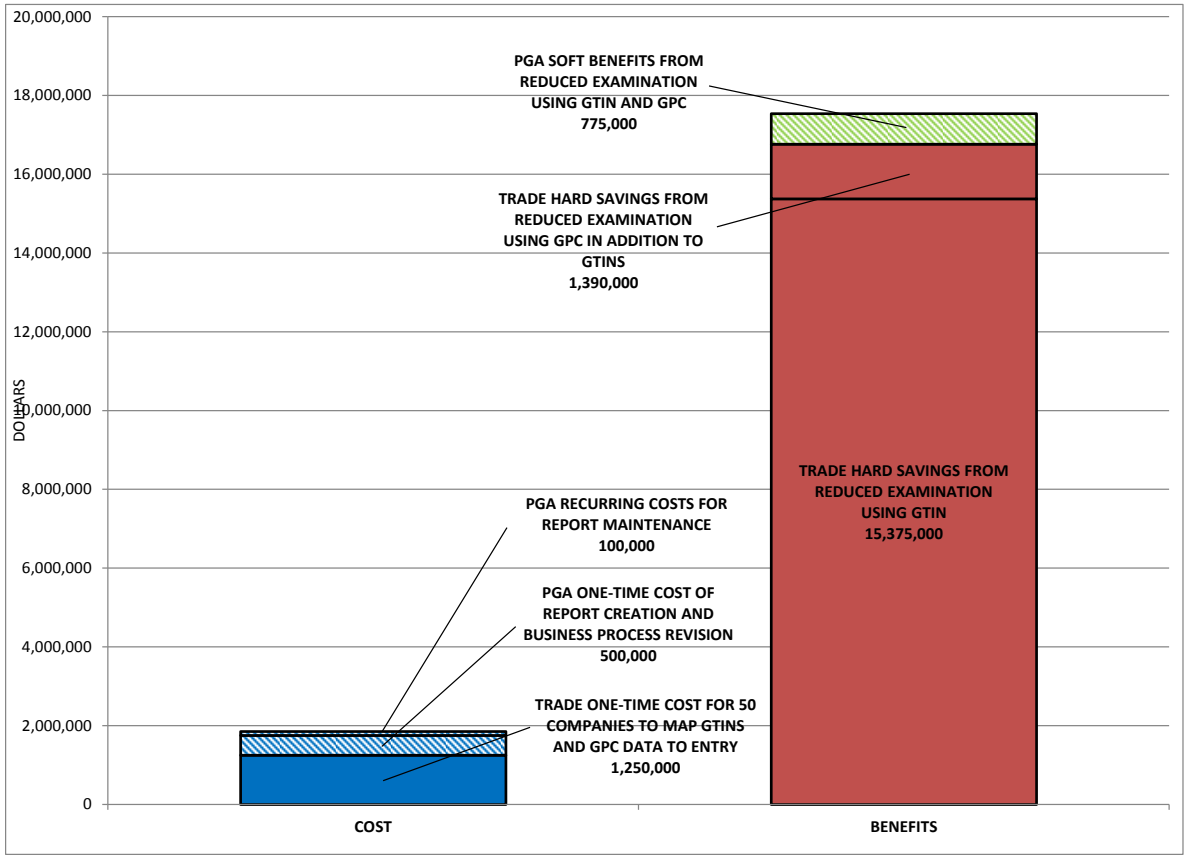

Figure 7: Components of Cost and Benefit for Toy and Games Products for PGA and the Top 50 Toy Importers Over Five Years

CONCLUSIONS

The ability of GTINs and global product classification codes to reduce the volume of consumer products subject to CPSC examination by 80 percent provides a break-through opportunity for efficient toy product management at US borders. For this reason, the PIC members recommend that advancement of this business case be given the full support of the ITDS Board, CBP, and all interested PGAs, trade members, and trade associations.

The results of the toy and game pilot are particularly noteworthy because benefits of a similar scale will likely accrue for other types of consumer products if these products are also managed by government using GTINs and global product classification codes. Although the range of benefits will vary in accordance with the frequency of product repetition, the frequency of PGA product examination, and the utility of the HTS codes compared to the global product classification codes, this approach should be evaluated by interested PGAs and trade members for the management of other consumer product sets such as electronics, computers, public health products, food products, and alcoholic beverages.

HIGH-LEVEL NEXT STEPS

Given the high value projected for this business case, the pilot team recommends that CPSC and interested toy importers work together to advance the use of this business case in the United States in accordance with the following next steps:

1. CPSC and interested toy importers should communicate their interest in adopting the proposed business case and collaboratively develop estimated implementation timelines.

2. CPSC and interested toy importers, with support from ITDS, should review the GPC global product classification codes and brick attributes and propose change requests that will improve the accuracy of product classification for toys and games.

3. CPSC should revise targeting procedures to use global product classification codes in their targeting systems and to recognize products by GTIN to allow for reuse of a product's admission history.

4. Importers should revise electronic entry submissions to include the PGA record set for CPSC and ensure that entry lines include the GTIN and global product classification code for toy and game products whenever possible.

CUT FLOWER PILOT

OVERVIEW

Product Set Scope: The pilot product set consisted of cut flower products imported for distribution to florists, wholesalers, mass markets, and retail grocery stores in the United States. The HTS codes used by the US for products covered by this pilot are all fresh-cut flowers (0603) and fresh-cut foliage (0604) products as follows:

0603		Cut flowers and flower buds of a kind suitable for bouquets or for ornamental purposes, fresh dried, dyed, bleached, impregnated or otherwise prepared:
		Fresh:
0603.11.00		Roses
	10	Sweetheart
	30	Spray
	60	Other
0603.12		Carnations:
0603.12.30	00	Miniature (spray) carnations
0603.12.70	00	Other
0603.13.00		Orchids
	50	Dendrobium
	60	Other
0603.14.00		Chrysanthemums
		Chrysanthemums:
	10	Pom Pom
	20	Other
0603.19.00		Other
	05	Anthuriums

	10	Alstroemeria
	20	Gypsophila
	30	Lilies
	40	Snapdragons
	60	Other
0604		Foliage, branches and other parts of plants, without flowers or flower buds, and grasses, mosses and lichens, being goods of a kind suitable for bouquets or for ornamental purposes, fresh, dried, dyed, bleached, impregnated or otherwise prepared:
0604.10.00	00	Mosses and lichens
		Other:
0604.91.00		Fresh
	80	Other

Table 9: HTS Codes Used for Tariff Assessment of Cut Floral Products

Product Volume: In 2010, 127,042 entries of cut flowers, composed of over 8 billion stems and valued at over $1.3 billion were imported into the United States. The pilot focused on operations in the Miami airport, which is the entry point for nearly 90 percent of all imported floral products into the US.

Government Role in Admission: CBP and APHIS Plant Protection and Quarantine are jointly responsible for ensuring cut floral products are admissible and do not include any live pests that threaten the welfare of the United States as authorized by the Plant Protection Act. CBP is responsible for the clearance and inspection of cut flower products, while APHIS is responsible for pest identification and establishing pest risk management and sampling procedures for all incoming products. In FY10, the CBP Miami, Florida, office had a staff of 75 CBP Agriculture Specialists (CPBAS) and 6 technicians to carry out its agricultural inspection mission.

Current PGA Inspection Process: As cut flower products arrive at points of entry, typically by air, CBP first verifies the eligibility of the product for admission. Some types of flowers are always prohibited, some are prohibited when imported from certain countries, and some are admitted with restrictions placed on their use or movement. Once eligibility for admission is confirmed, CBP then checks the completeness of shipment documentation, and then inspects the product for pests in accordance with policy guidance provided by APHIS. When CBP agriculture specialists arrive at the site of the inspection, they review the air

waybills and invoices and compare those to the Sampling Breakdown Worksheet and the Cut Flower Data Sheet that are prepared by carrier personnel. Once verified as correct and that all required samples are available for inspection, the CBPAS conducts the pest inspection. If live pests are found, samples of that pest are transported to APHIS PPQ laboratories near the inspection site for identification. If product is found to contain pests that are quarantine significant, the broker is issued an Emergency Action Notice and must either fumigate, re-export, or destroy the shipment. If upon arrival, CBPAS finds that the reports have significant errors or that the correct samples are not available, CBPAS will leave the inspection site and return later once notified that the carrier has made the necessary corrections to present the correct product samples and an error-free Sampling Breakdown Worksheet and Cut Flower Data Sheet.

WHAT WE EVALUATED

Can Global Classification Codes Automate Sampling Breakdown Worksheet Generation? Presently, the CBPAS manually reviews air waybills and invoices of incoming shipments to calculate the sampling units that are present in each load, the number of boxes for each sampling unit, and the number of boxes that must be sampled. The number of documents to be reviewed for a typical entry ranges from 20 to hundreds of pages, with even higher volumes during holiday periods. In the case of the entry analyzed in detail for the pilot, the number of air waybill and invoice documents numbered 49 pages. The time required for CBP specialists while at the inspection site to validate the sampling breakdown worksheet prepared by the carrier is estimated by CBP officials to take about 50 percent of the typical 2 hour inspection process. Therefore, if the use of global classification codes can automate the generation of the sampling plan, the inspection time on-site could be reduced by 50 per cent, or typically one hour. This could double the efficiency of the CBP inspection staff and speed the release of each floral shipment, particularly important given the perishable nature of cut-flower products and their limited shelf life.

Can Global Classification Codes Automate Cut Flower Product Volume Reporting? The CBPAS also verifies carrier calculations regarding total stems imported in each shipment by floral product type. For this report, specialists review a "Cut Flower Data Sheet" and validate the number of stems reported by the carrier for each floral product type (e.g., mixed bouquets, roses, and chrysanthemums). For this report, all stems in a mixed bouquet are reported as mixed bouquet stems, whereas for tariff assessment, all stems in a mixed bouquet are reported by component type (e.g., as either rose, chrysanthemum, or alstroemeria stems). The time required for CBP specialists to verify the entries for the Cut Flower Data Sheet is included in the time required for verification of the sampling plan, but the entries must later be keyed into a data entry screen by CBP technicians to transmit the information to an APHIS product volume information management system. If the data entered on the Cut Flower Data Sheet can

be automatically calculated for each shipment, then that data could be transferred electronically from the entry system to the APHIS system and eliminate the data entry labor and potential manual miscalculation of entries.

HOW THE EVALUATIONS WERE PERFORMED

Pilot Spreadsheet Used to Determine If Sample Breakdown Worksheet and Cut Flower Data Sheet Generation Possible: An electronic Cut Flower Risk Assessment Spreadsheet was created by the pilot team to capture data from entries and allow for the addition of a global classification code and product GTIN to determine if the two manually prepared documents could be generated with the addition of these two data elements. The pilot spreadsheet was also used to ensure that the format of the PGA data in the Automated Broker Interface allowed for the collection of all necessary data, including critical data relationships. The pilot spreadsheet is not for use in a production system; rather the logic of the spreadsheet reports will be programmed as ACE or PGA system reports that will provide the same or similar information as the pilot spreadsheet reports.

The pilot spreadsheet was tested using selected invoices to validate a method of collecting floral product entry data that permits CBP and APHIS to create the three critical views of imported cut flower products:

1. Component flower type by stem number for tariff assessment;
2. Sampling unit (air waybill number by flower type by grower [MID#]) for the Sampling Breakdown Worksheet; and
3. Flower Product by stem number for the Cut Flower Data Sheet.

The data used in the Cut Flower Risk Assessment Spreadsheet is shown in Table 10, where the yellow-highlighted columns represent existing entry data, and the blue-highlighted columns represent the product classification and GTIN data added for each floral component of the shipment. Because no global floral product classification codes existed in advance of the pilot, the pilot team worked with the United Nations Standard Product and Service Codes (UNSPSC) standards organization to establish global floral codes that met the needs of the pilot. These codes were officially published by UNSPSC in November 2010, and used in the worksheet to represent the floral product type and floral component type.

To test the ability of the government to use the addition of the global classification code numbers, a complex shipment of flowers imported into the US on a commercial flight was studied. The shipment included 169 invoice lines and 626,178 stems. The pilot

team selected a commercial flight where all products in the shipment were imported by the same importer, Sunburst Farms, to facilitate the data capture process, but the same data capture process could have been used for shipments consolidated from two or more importers. Data was exported from the importer's data entry process and loaded into the pilot team's spreadsheet. Copies of the invoices and air waybills were used to confirm imported data. The pilot team then added the appropriate UNSPSC classification codes for each product and component, and assigned fictitious GTINs, useful in distinguishing different floral products, using the same GTIN number allocation process that would be used by floral product suppliers. The automated spreadsheet tariff assessment report, sampling breakdown report, and cut flower report were then compared to the corresponding manually prepared reports for this flight that were provided in hard copy by the importer.

ENTRY/ SHIPMENT #	LINE	AIRBILL #	HOUSE AIRWAY BILL #	INVOICE #	MID#	PRODUCT INVOICE DESCRIPTION	COMPONENT INVOICE DESCRIPTION	HTSUS CODE	COUNTRY ORIGIN	BOXES	TOTAL STEMS	PCT	GTIN	PRODUCT UNSPSC CODE	COMPONENT UNSPSC CODE
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	DIANTHUSUS, OTHER THAN MINIAT	DIANTHUSUS, OTHER THA	603127000	CO	1	175		00123450000031	10313200	10313200
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	DIANTHUSUS, OTHER THAN MINIAT	DIANTHUSUS, OTHER THA	603127000	CO	58	20300		00123450000031	10313200	10313200
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	DIANTHUSUS, OTHER THAN MINIAT	DIANTHUSUS, OTHER THA	603127000	CO	38	11400		00123450000031	10313200	10313200
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	DIANTHUSUS, OTHER THAN MINIAT	DIANTHUSUS, OTHER THA	603127000	CO	6	2400		00123450000031	10313200	10313200
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	ALSTROEMERIAS	ALSTROEMERIAS	603190010	CO	14	1120		00123450000032	10311700	10311700
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	ALSTROEMERIAS	ALSTROEMERIAS	603190010	CO	2	180		00123450000032	10311700	10311700
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	ALSTROEMERIAS	ALSTROEMERIAS	603190010	CO	11	1100		00123450000032	10311700	10311700
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	ALSTROEMERIAS	ALSTROEMERIAS	603190010	CO	36	6480		00123450000032	10311700	10311700
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	ALSTROEMERIAS	ALSTROEMERIAS	603190010	CO	9	1800		00123450000032	10311700	10311700
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	ALSTROEMERIAS	ALSTROEMERIAS	603190010	CO	8	2000		00123450000032	10311700	10311700
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	DELPHINIUMS	DELPHINIUMS	603190060	CO	11	1650		00123450000033	10313100	10313100
P9900945678		307-34070746	404150	19090	COFLCAS1234BOG	DELPHINIUMS	DELPHINIUMS	603190060	CO	2	400		00123450000033	10313100	10313100
P9900945678		307-34070746	404150	19091	COFLCAS1234BOG	ALSTROEMERIAS	ALSTROEMERIAS	603190010	CO	1	160		00123450000032	10311700	10311700
P9900945678		307-34070746	404150	19092	COFLCAS1234BOG	DIANTHUSUS, OTHER THAN MINIAT	DIANTHUSUS, OTHER THA	603127000	CO	40	22400		00123450000031	10313200	10313200
P9900945678		307-34070746	404150	19092	COFLCAS1234BOG	ALSTROEMERIAS	ALSTROEMERIAS	603190010	CO	124	48608		00123450000032	10311700	10311700
P9900945678	1	307-34070746	404151	19928	COSPELFL6655BOG	BQT ROSE COOL WATER	ROSE X-LONG	603110060	CO	2	144	86%	00123450000001	10341500	10300000
P9900945678	1	307-34070746	404151	19928	COSPELFL6655BOG	BQT ROSE COOL WATER	GYPSOPHILA	603190020	CO	0	12	7%	00123450000001	10341500	10314400
P9900945678	1	307-34070746	404151	19928	COSPELFL6655BOG	BQT ROSE COOL WATER	RUSCUS	604910080	CO	0	12	7%	00123450000001	10341500	10326086

Table 10: Pilot Spreadsheet Sample Data Rows

WHAT WE OBSERVED

The results of the pilot spreadsheet reports exactly matched the results of the manually prepared reports for all three reports. The only exception occurred in the Sampling Breakdown Worksheet, where the manually prepared report combined three bouquet products into one sampling unit since the invoice product description for each bouquet were the same, but the automated report considered each bouquet product to be a different sampling unit since the composition of the bouquet products detailed on each invoice differed. With this explanation of the one variation in the automated sampling breakdown, **the pilot team concluded that the results of the Tariff Assessment report, the Sampling Breakdown Report, and the Cut Flower Data Worksheet are all accurate and complete and can be reliably automated through the use of global classification codes.** A copy of the worksheet-generated reports are provided below.

TARIFF ASSESSMENT REPORT:

The tariff assessment report in Table 11 shows stem count by HTS code for all products in the shipment, which allows the correct assessment rate to be applied to all products in the shipment.

HTSUS CODE	COMPONENT FLOWER NAME	Total
603110060	ROSES	217,569
603190020	GYPSOPHILIAS	3,303
604910080	FERNS	1,620
	LEATHERLEAF	15
	LILY GRASS	13,040
	RUSCUS	10,042
	EUCALIPTUS	1,400
603190060	ASTERS	15,100
	CAMPANULAS	11,932
	DELPHINIUMS	2,050
	GERBERAS	28,188
	PALMA ROBELINA	31,124
	SOLIDAGOS	7,580
	STATICES	7,208
603110030	SPRAY ROSES	21,738
603123000	DIANTHUSUS, MINIATURE (SPRAY)	5,602
603127000	DIANTHUSUS, OTHER THAN MINIATURE/SPRAY	93,673
603140010	DAISY POMPON CHRYSANTHEMUMS	36,506
603140020	SPIDER CHRYSANTHEMUMS	2,594
603190010	ALSTROEMERIAS	128,488
603190040	SNAPDRAGONS	4,114
Grand Total		642,886

Table 11: Pilot Spreadsheet Tariff Assessment Report showing Stem Number by HTS Code

SAMPLING BREAKDOWN REPORT:

Explanation of the Sampling Breakdown Report: The Sampling Breakdown Report in Table 12 shows products for one of three air waybills in the shipment, where the sampling unit is determined by product type and invoicing party (e.g., farm or distributor MID#), with the calculated risk rating and corresponding sampling rate instruction for the product determined by past inspection findings that are translated into inspection policy and documented in the APHIS Cut Flowers and Greenery Import Manual. For mixed products (e.g., bouquets) the report shows the sampling rate for each individual component, which is technically an incomplete determination, as the highest sampling rate for any one component will apply to the entire box of the mixed product. The final ACE program report will add in the program logic to determine which component rate prevails for that entire box of mixed product and show only that sampling rate.

Determining the Sample Unit: When using the automated sampling breakdown report like that in the pilot spreadsheet, CBPAS will use the Product Name column, shown aggregated by invoicing party (MID#), as the default sampling unit. Each of the specific products identified by GTIN is assumed to be product of the same inspection unit (different GTIN numbers are assigned when products differ by stem lengths or volume of the box (quarter or half). However, in the case of mixed products, where GTINs identify products with different floral components (e.g., Leatherleaf greens used in place of Ruscus greens), these products will be sampled as separate inspection units. CBP agricultural specialists make this same determination today by reviewing the invoice descriptions of each mixed product to determine the components present in each product.

AIRBILL #	HOUSE AIRW	MID#	PRODUCT NAME	GTIN	COMPONENT FLOWER NAME	INSPECTION INSTRUCTIONS	Sum of BOXES	Sum of TOTAL STEMS
307-34070746	404150	COFLCAS1234BOG	ALSTROEMERIAS	00123450000032	ALSTROEMERIAS	AT LEAST 1 BOX INSPECTING 100%	205	61448
			DELPHINIUMS	00123450000033	DELPHINIUMS	AT LEAST 1 BOX INSPECTING 100%	13	2050
			DIANTHUSUS, OTHER T	00123450000031	DIANTHUSUS, OTHER THAN MI	AT LEAST 1 BOX INSPECTING 100%	143	56675
	404151	COSPELFL6655BOG	BOUQUETS OF ROSES	00123450000001	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	12
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	2	144
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	12
				00123450000002	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	6
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	1	72
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	6
				00123450000003	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	6
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	1	72
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	6
				00123450000004	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	6
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	1	72
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	6
				00123450000005	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	6
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	1	72
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	6
				00123450000006	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	6
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	1	72
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	6
				00123450000007	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	6
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	1	72
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	6
				00123450000008	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	6
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	1	72
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	6
				00123450000009	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	6
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	1	72
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	6
				00123450000010	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	6
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	1	72
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	6
				00123450000011	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	15
					LEATHERLEAF	AT LEAST 1 BOX INSPECTING 100%	0	15
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	1	90
				00123450000012	GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	36
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	3	432
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	36
		COFLCAS4466BOG	ALSTROEMERIAS	00123450000032	ALSTROEMERIAS	AT LEAST 1 BOX INSPECTING 100%	94	17140
				00123450000038	ALSTROEMERIAS	AT LEAST 1 BOX INSPECTING 100%	126	24696
			BOUQUETS OF MIXED F	00123450000035	EUCALIPTUS	AT LEAST 1 BOX INSPECTING 100%	0	1400
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	70	8400
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	2800
				00123450000036	FERNS	AT LEAST 1 BOX INSPECTING 100%	0	1620
					GYPSOPHILIAS	AT LEAST 1 BOX INSPECTING 100%	0	810
					ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	18	2430
					RUSCUS	AT LEAST 1 BOX INSPECTING 25 to 50% if FBEs > 50 OR 100% IF FBEs <= 50	0	1620
			ROSES	00123450000034	ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	54	10600
				00123450000037	ROSES	RELEASE UNDER NATIONAL FLOWER OF THE DAY PROGRAM	536	96480

Table 12: Pilot Spreadsheet Sampling Breakdown Report Showing Number of Cartons and Sampling Rate for each Sample Unit

CUT FLOWER WORKSHEET

The Cut Flower Data Sheet shown in Table 13 reports all products in the shipment by stem number, so that a mixed product such as a rose bouquet is reported by the total number of stems present in that bouquet. For example, in this report a rose bouquet product is reported to have 1,548 stems, even though it is composed of 1,236 rose stems, 156 chrysanthemum stems, and 156 alstroemeria stems.

PRODUCT NAME	COUNTRY ORIGIN	Total
BOUQUETS OF ROSES	CO	1,548
BOUQUETS OF MIXED FLOWERS	CO	238,250
	EC	2,376
ROSES	CO	190,035
GERBERAS	CO	3,320
ASTERS	CO	1,900
SNAPDRAGONS	CO	1,950
ALSTROEMERIAS	CO	103,284
DELPHINIUMS	CO	2,050
SPRAY ROSES	CO	4,680
STATICES	CO	4,568
SOLIDAGOS	CO	7,000
DIANTHUSUS, OTHER THAN MINIATURE/SPRAY	CO	81,925
Grand Total		642,886

Table 13: Cut Flower Data Sheet Showing Products by Total Stem Number

THE VALUE OF THE BENEFITS

Business case benefit is generated when broker software incorporates the use of global cut flower classification codes for the type of product (e.g., rose bouquet) for mixed products and for unmixed products (e.g., alstroemeria), which allows CBP to generate as ACE reports the Sampling Breakdown Worksheet and Cut Flower Data Sheet from entry data filed by the importer. Also of value, but not a requirement for the business case, is for importers to identify products by GTIN in order to assist CBP agriculture

specialists in validating which mixed products belong to which sampling units and to identify specific boxes of products associated with each sample unit.

The industry practice of consolidating products from different importers onto one flight at the country of origin adds importance to the value of rapid and broad industry adoption. CBP evaluates all products of the same floral type from the same farm (MID#) as one sampling unit when arriving on the same flight, regardless of importer. Therefore, the optimal business case is for all importers with product on a given flight to be filing entries with the global product codes so that all products on that flight can be evaluated with ACE-generated reports. Fortunately, floral importers tend to use entry software provided by a limited number of companies, and once these software companies revise their entry software to support global product codes, all importers using that brand of entry software could easily implement the use of global product codes.

Benefits below are summarized over 5 years for 10 major cut flower importers. The assumptions used to estimate government and trade costs and benefits are summarized in Appendix D.

NO HARD BENEFITS – Increased Inspection Efficiency Diverted to Other Inspection Activities

By decreasing the average cut flower inspection time by 50%, government will become dramatically more efficient, but hard cost savings are not expected for the government or trade. Instead, time saved by CBPAS will be diverted to other inspection activities, given the large volume and variety of agricultural products available for inspection every day. Similarly, carrier and trade staff time savings are expected from the decreased inspection times, but this time will likely be diverted into other carrier and trade tasks. One possible effect will be a decrease in overtime work for CBPAS, carrier, and trade employees, but no metrics exist to calculate this decrease with sufficient certainty to include in the business case.

SOFT BENEFITS – Increased Government Efficiency at Inspection Site Using System-Generated Sampling and Cut Flower Data Reports:

Automation of the Sampling Breakdown Report: Miami CBP managers estimate that the CBP agriculture specialist process of reviewing documents to verify the manually prepared Sampling Breakdown Worksheet and Cut Flower Data Sheet takes approximately 1 to 2 hours for each shipment inspection, depending on the size of the shipment and any discrepancies encountered. If an average of 1 hour is saved per inspection by CBP specialists using Sampling Breakdown Reports generated from entry data, CBP could reduce inspection time by 2,080 hours in Miami for 10 importers, assuming on average that each

major importer has 4 entries a week, which in aggregate would equal about 2,080 [4 X 10 X 52] cut flower inspections each year. This reduction in inspection time, equal to one full-time staff position, is calculated as cost avoidance, as increases in specialist efficiency will be reinvested in the inspection of other agricultural products.

- Annual Cost Avoidance with 10 Importers adopting = 40 hours saved/week X 52 = 2,080 hours at $43[6] = $ 89,440

Automation of the Cut Flower Data Sheet: Presently carrier employees manually prepare the Cut Flower Data Sheet and the CBP agriculture specialists verify the accuracy of the report and enter the worksheet data into the APHIS Agriculture Quarantine Activity System (AQAS), a USDA information system. However, if the entry information filed by the importer includes the product classification codes, then the CBP system could calculate the cut flower datasheet information and electronically transmit that information to AQAS. As a result, CBP will no longer need to enter the cut flower data from the data sheet into AQAS. Miami managers estimate that presently it takes an average of 5 minutes to enter data from each data sheet into the APHIS system, and there are on average 42 cut flower data sheets (varying from 40 to 50) to be entered every week day. Presently, the entry of cut flower data is performed by CBP technicians in conjunction with other duties. With the automated generation and transmission of the cut flower data between the CBP information system and the AQAS system, the use of these technicians for cut flower data entry could be eliminated and all time saved could be used for other duties. Accordingly, the savings in time are calculated as cost avoidance, as technician Cut Flower Data Sheet entry time will be diverted to other CBP activities.

- Annual Cost Avoidance for 10 importers = 5 minutes X 40 data sheets per week [4 data sheets X 10 importers] = 3.33 hours saved weekly X 52 weeks= 173 hours annually at average technician cost $29[7] = $5,017

SOFT BENEFITS – Increased Trade Efficiency Using System-Generated Sampling and Cut Flower Data Reports:

If carriers can be provided access to the CBP reports, or if the carriers can access the same data that importers provide to CBP, then carriers could generate the sampling breakdown reports and would no longer need to manually prepare them. The average time to prepare the sampling report by carrier staff for one flight is assumed to be 1 hour, the same as for a CBP agriculture

[6] As of 2011, the pay rate of a GS-11 step 5 Federal government employee stationed in Miami, FL, is $32.98. With an average benefit cost of 30%, the hourly salary and benefit of a typical CBPAS would be $42.87.
[7] As of 2011, the pay rate of a GS-7 step 5 Federal government employee stationed in Miami, FL, is $22.29. With an average benefit cost of 30%, the hourly salary and benefit of a typical CBP technician would be $28.98.

specialist to perform the same task. Additionally, the decrease in average inspection time from 2 hours to 1 hour also frees up carrier personnel for other duties, providing additional cost avoidance for the trade. The benefit to carriers is estimated as follows:

- Annual Cost Avoidance for Eliminating Manual Sample Breakdown and Cut Flower Data Sheet for10 Importers = 1 hour X 40 inspections per week = 40 hours saved weekly X 52 weeks= 2,080 hours at $12 [Carrier Hourly Wage] = $24,960

- Annual Cost Avoidance for Reduced On-Site Inspection time for Carrier Personnel for 10 Importers = 1 hour X 40 inspections per week = 40 hours saved weekly X 52 weeks= 2,080 hours at $12 [Carrier Hourly Wage] = $24,960

TRADE FIVE-YEAR SOFT BENEFIT FOR 10 IMPORTERS: $ 24,960 [trade annual cost avoidance with elimination of manual report preparation for 10 importers] + $ 24,960 [carrier annual cost avoidance with decrease in average inspection time] X 5 = $ 249,600

INTANGIBLE BENEFITS – Increased Trade Efficiency Using System-Generated Sampling and Cut Flower Data Reports:

Possible Reduction in Overtime Inspection Fee Charges: Because the cost of the inspections is funded by appropriations and not billed directly to trade, there is no hard cost savings to the trade for the reduction in time spent by CBP agriculture specialists at the inspection site. The trade is only charged inspection fees when the specialist has exceeded his or her 8 hour tour for the day; then the trade is charged an hourly fee that is twice the hourly wage of the specialist performing the inspection. However, it is difficult to quantify this potential savings to the trade, since there is no reliable way to predict when inspections would be conducted on overtime. Although this reduction in inspection time will no doubt result in reduced inspection fees to the trade, no hard benefits could be reliably calculated and this benefit is left as an intangible benefit for trade and is not included in the cost benefit analysis.

Faster Release of Perishable Products into the Supply Chain: The trade will also benefit from faster release of products if the average inspection time changes from 2 hours to 1 hour. The value of the 1-hour faster release time incrementally extends the shelf life of perishable flowers for that one inspection. But as CBPAS staff move from one inspection to the next during the work day without having to manually prepare the sampling breakdown reports, the last inspection queued for the day will be started hours earlier. Although this incremental improvement in release time, when multiplied by the number of entries released each

year, is real, the pilot team could not measure or estimate this improvement with reliability, so it is recognized here as an intangible benefit but is not included in the cost benefit analysis.

Improved Granularity and Confidence in Industry Import Volume Metrics: An intangible benefit of automating the data generation and capture of the cut flower data sheet is the improved data accuracy and confidence in reporting the volume and type of cut flower imports. Both the trade and the government are totally dependent on the numbers generated by this process to understand the nature of cut flower imports entering the US. Therefore, any enhancements that improve the accuracy of and user confidence in these cut flower data numbers is significant, as there are no other data sets that can be used to cross-check these numbers.

The Impact of Air Waybills on Sampling Efficiency: Presently, sampling units are constrained to products listed on the same air waybill. This means that even if the same product from the same farm is listed on two different air waybills in the same entry, this product is sampled twice as two different samples, one for each waybill. This practice is a necessity with the current manual generation of the sampling breakdown report, since the only source of data for the current process is the hard-copy air waybills and invoices. Yet the assignment of product to one or more air waybills has no correlation to pest risk management.

But when the Sampling Breakdown Worksheet is generated using entry data provided by the importer at the time of importation, new business processes may be possible to improve sampling efficiency. APHIS PPQ may wish to revise its sampling procedures for automated sampling plans to eliminate the use of the air waybill as a factor in sample unit construction, which would likely reduce the number of sampling units and further increase inspection efficiency without significantly increasing admission risk. In the case of the pilot entry, the shipment consisted of 39 sample inspection units when including the air waybills in the inspection unit construction, but 36 using only the farm (MID#) and product type. Seemingly minor efficiencies for a single entry could become significant when multiplied by the approximately 127,000 entry inspections conducted every year. Given that additional research and policy analysis is needed to confirm the potential benefit of this change, this impact is considered an intangible benefit and is not included in the business case cost-benefit analysis.

THE COST OF CREATING THE BENEFITS

GOVERNMENT COSTS:

Two new reports will need to be created for CBP Agricultural Specialists in the ACE system. The one-time cost for programming the Sampling Breakdown Worksheet and the Cut Flower Data Sheet data is estimated to be $250,000, with a recurring annual cost of $1,000 per report. The generation and transmission of the cut flower worksheet data would be implemented using web services as part of the ACE-PGA Interoperability Web Service to share the data with APHIS. The CBP cost of creating the web service to deliver this data to the APHIS AQAS is considered to be part of the cost of programming the new ACE report. Additional programming will be needed by the AQAS to import the data, estimated to be about $50,000. Additional one-time training costs for implementing a new business procedure for a 2 hour training program with an estimated training material development cost of $25,000 is $35,320 [2 hr. X $43 x 120 inspectors = $10,320 + 25,000 training material development].

- One-time cost of programming two new reports: $250,000
- One-time cost of programming AQAS Web Service: $50,000
- Annual recurring cost of maintaining two new reports: $2,000
- One-time training costs to implement new business process: $35,320

PGA FIVE-YEAR COST: $ 250,000 [one-time programming] + 50,000 [one-time AQAS web service] + (2,000 X 5 [recurring maintenance] + 35,320 [one-time training] = $ 345,320

TRADE COSTS:

Importers currently enter an identity code for each product and product component of a mixed flower product in an entry. Broker software will map these codes to the global UNSPSC code and place that value in the PGA record set. Additionally, as an industry best practice, importers should provide a GTIN in place of the stock-keeping unit (SKU) to identify each different product they ship in the supply chain. CBP has proposed a draft Automated Broker Interface record to the trade to allow for this product data to be electronically transmitted to CBP and APHIS PPQ personnel. An example of the draft PGA record set for cut flowers with the

locations highlighted for the classification codes (preceded by UNS) and GTIN numbers (preceded by SRV) is shown in Table 14. A detailed example of the cut flower PG record is provided as Appendix H.

1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	50	1	2	3	4	5	6	7	8	9	60	1	2	3	4	5	6	7	8	9	70	1
H	5	0	0	2	C	O	6	0	3	1	1	0	0	6	0																																																							
O	I									R	O	S	E		B	O	U	Q	U	E	T		W	I	T	H		P	O	M		P	O	M		C	H	R	Y	S	A	N	T	H	E	M	U	M	S	,		A	L	S	T	R	O	E	M	E	R	I	A							
P	G	0	1	0	0	1	A	P				S	R	V		1	0	1	2	3	4	5	0	0	0	0	1	9	1						1	3	0	.	0	0	0	-	0	0	0																									
P	G	0	2	P	U	N	S		1	0	3	4	1	5	0	0																																																						
P	G	2	6	5	0	0	0	0	0	0	0	0	0	1	2	6	B	X																																																				
P	G	2	6	6	0	0	0	0	0	0	0	0	0	1	0	0	N	O																																																			
P	G	0	2	C	U	N	S		1	0	3	0	0	0	0	0																																																					
P	G	0	4		R	O	S	E	S																																																0	0	0	0	0	1	0	0	0	0	0	0	N	O
H	5	0	0	2	C	O	6	0	3	1	2	7	0	0	0																																																						
O	I									R	O	S	E		B	O	U	Q	U	E	T		W	I	T	H		P	O	M		P	O	M		C	H	R	Y	S	A	N	T	H	E	M	U	M	S	,		A	L	S	T	R	O	E	M	E	R	I	A							
P	G	0	1	0	0	1	A	P				S	R	V		1	0	1	2	3	4	5	0	0	0	0	1	9	1						1	3	0	.	0	0	0	-	0	0	0																									
P	G	0	2	P	U	N	S		1	0	3	4	1	5	0	0																																																					
P	G	0	2	C	U	N	S		1	0	3	1	2	7	0	0																																																						
P	G	0	4		P	O	M		P	O	M		C	H	R	Y	S	A	N	T	H	E	M	U	M	S																															0	0	0	0	0	0	2	0	0	0	0	0	N	O
H	5	0	0	2	C	O	6	0	3	1	9	0	0	1	0																																																						
O	I									R	O	S	E		B	O	U	Q	U	E	T		W	I	T	H		P	O	M		P	O	M		C	H	R	Y	S	A	N	T	H	E	M	U	M	S	,		A	L	S	T	R	O	E	M	E	R	I	A							
P	G	0	1	0	0	1	A	P				S	R	V		1	0	1	2	3	4	5	0	0	0	0	1	9	1						1	3	0	.	0	0	0	-	0	0	0																									
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Table 14: Example of the Revised ABI PGA Record for a Mixed Product with the Global Product Classification and GTIN Data Highlighted

Discussions with software firms that support entry filers in this business sector indicate that the one-time cost to the trade for upgrading to entry software that can support the PGA record set will be incurred by brokers through the normal software maintenance process. Software updates related to CBP system changes are typically provided at no additional charge to brokers that have software maintenance agreements in place with the software vendors, and major brokers purchase these software maintenance agreements as a normal cost of business. Accordingly, there is no additional cost to the trade for receiving the updates to the entry software that can support the PGA record set. Other industry segments may differ in software maintenance practices.

THE COST-BENEFIT ANALYSIS

Cost-benefit is summarized over five years for two implementation scenarios: Ten major floral importers (about 20 % of import volume); and fifty major floral importers (about 95 % of import volume).

CUT FLOWER BUSINESS CASE 1: CBP AND TOP 10 FLORAL IMPORTERS IMPLEMENTING GLOBAL PRODUCT CODES

With ten major importers using the PGA record set to provide global classification codes, after five years the total cost is $345,000, the total benefit is $720,000,and the net value is $375,000 with a 109% return on investment as shown in Table 15.

% of INDUSTRY ADOPTION:	20 %	FIVE-YEAR ROI[8]:	109%	PAYBACK IN:	YEAR 3
TOTAL BENEFIT:	**$ 720,000**	**TOTAL COST**	**$ 345,000**	**TOTAL NET VALUE**	**$ 375,000**
TRADE:	$ 250,000	TRADE:	$0	TRADE	$ 250,000
PGA:	$ 470,000	PGA:	$ 345,000	PGA	$ 125,000
ANNUAL ROI METRICS	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**
CASH INFLOW (BENEFIT)	144,000	144,000	144,000	144,000	144,000
CASH OUTFLOW (COST)	337,000	2,000	2,000	2,000	2,000
NET VALUE	(193,000)	142,000	142,000	142,000	142,000
CUM NET VALUE	(193,000)	(51,000)	91,000	233,000	375,000
SIMPLE ROI	-57%	-15%	27%	68%	**109%**

Table 15: Business Case Metrics for 10 Major Cut Flower Importers Using Global Flower Codes

[8] Return on Investment is calculated as an arithmetic return in accordance with $ROI = \frac{(Total\ Benefit - Total\ Cost)}{Total\ Cost}$ and expressed as a percentage.

With ten major importers, it takes about three years to recover the cost of implementation, with the five year soft benefit reaching about $720,000, and with flat costs at $345,000 as shown in Figure 8. There is no significant trade cost for implementation and all PGA costs are recovered directly by the PGA in the fourth year through increased inspection efficiency. There is no hard benefit, as all time savings are diverted to other duties and the business case assumes no change in inspection fee charges to trade.

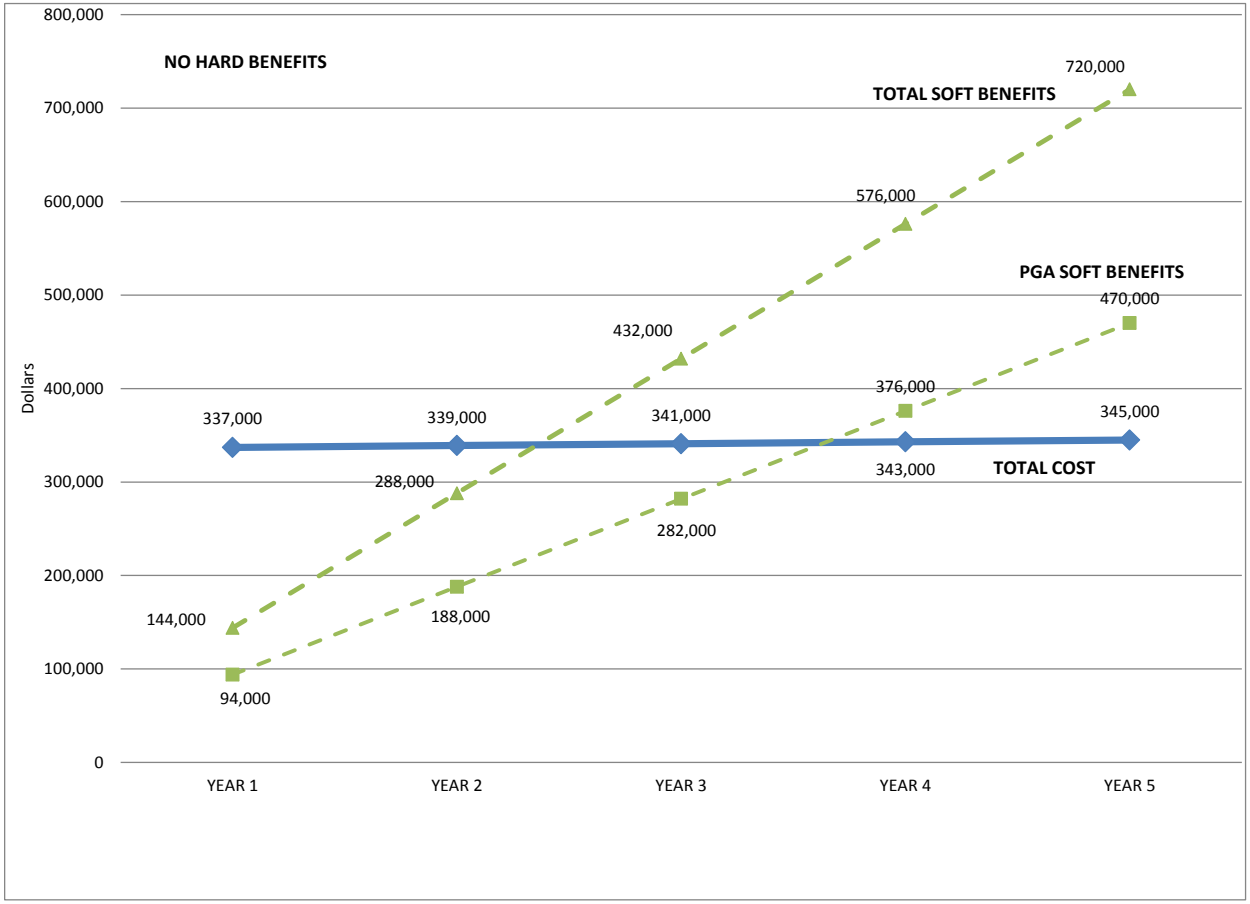

Figure 8: Cumulative Cost and Benefit for Cut Flower Products for PGA and Ten Major Importers Over Five Years

CUT FLOWER BUSINESS CASE 2: CBP AND TOP 50 FLORAL IMPORTERS IMPLEMENTING GLOBAL PRODUCT CODES

With 50 major importers adopting the use of global product classification, with 10 of these importers implementing in the first year, 20 adopting in the second year, and 20 more in the third year, after five years the total benefit is $2.7 million, the total cost is $345,000, and the net value is $2.4 million with a 693% return on investment as shown in Table 16.

INDUSTRY ADOPTION:	**95 %**	**FIVE-YEAR ROI:**	**693%**	**PAYBACK IN:**	**YEAR 2**
TOTAL BENEFIT:	**$ 2,736,000**	**TOTAL COST**	**$ 345,000**	**TOTAL NET VALUE**	**$ 2,391,000**
TRADE:	$ 950,000	TRADE:	$0	TRADE	$ 950,000
PGA:	$ 1,786,000	PGA:	$ 345,000	PGA	$ 1,441,000
ANNUAL ROI METRICS	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**
CASH INFLOW (BENEFIT)	144,000	432,000	720,000	720,000	720,000
CASH OUTFLOW (COST)	337,000	2,000	2,000	2,000	2,000
NET VALUE	(193,000)	430,000	718,000	718,000	718,000
CUM NET VALUE	(193,000)	237,000	955,000	1,673,000	2,391,000
SIMPLE ROI	-57%	70%	280%	488%	**693%**

Table 16: Business Case Metrics for 50 Major Cut Flower Importers Using Global Flower Codes

The five year cost remains at $345,000 because there are no significant implementation costs for the importers. Full PGA cost recovery through increased inspection efficiency happens near the start of the third year as shown in Figure 9. No hard benefit is assumed for the trade or the PGA, although a reduction in overtime inspection fees charged to the trade is likely.

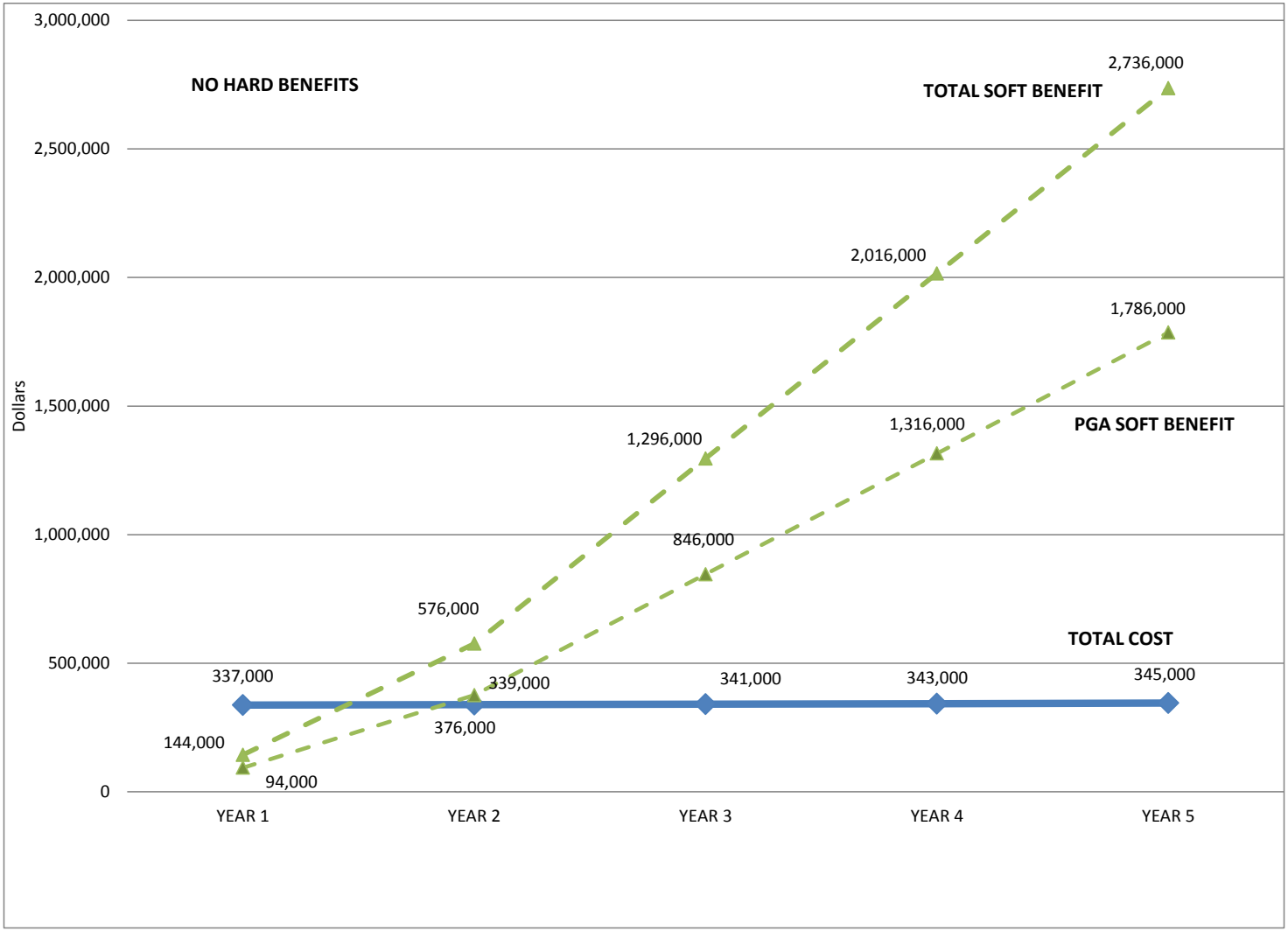

Figure 9: Cumulative Cost and Benefit for Cut Flower Products for PGA and 50 Major Importers Over Five Years

Finally, the major components of each cost and benefit for the PGA and 50 major importers at the end of a five-year period are shown in Figure 10.

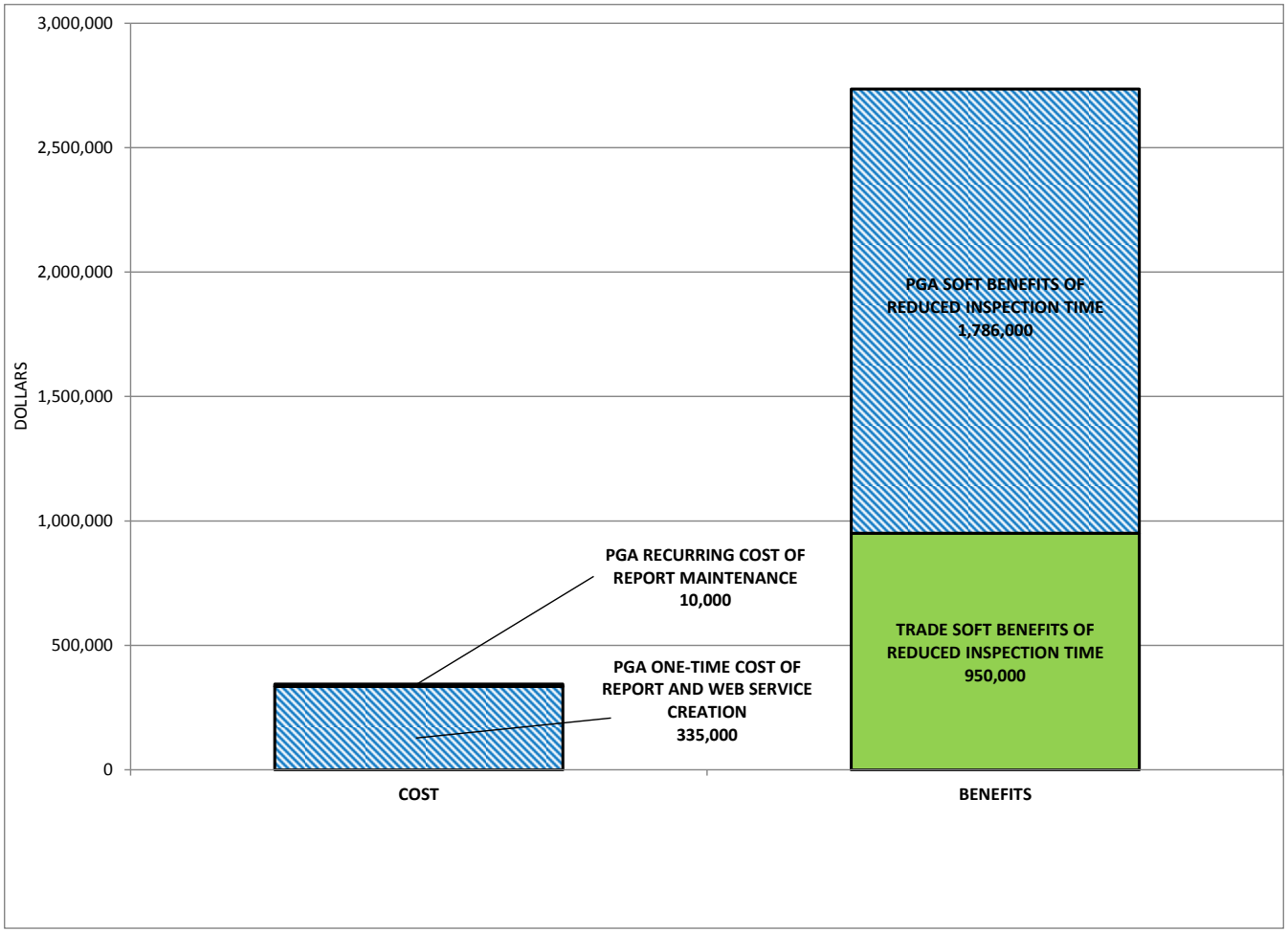

Figure 10: Components of Cost and Benefit for Cut Flower Products for PGA and 50 Major Importers Over Five Years

CONCLUSIONS

The ability to use global flower classification codes to automate time-consuming manual processes and reduce inspection times on average by 50 percent is a compelling reason to proceed with the advancement of this business case. For this reason, the PIC members recommend that the advancement of this business case be given the full support of the ITDS Board, CBP, APHIS, and interested trade members and trade associations.

HIGH-LEVEL NEXT STEPS

Given the positive value projected for this business case, the pilot team recommends that CBP, APHIS, and interested cut flower importers work together to advance the use of this business case in the United States in accordance with the following steps:

1. The government and interested cut flower importers and trade associations should communicate their interest in adopting the proposed business case and provide estimated implementation timelines.

2. Importers should be encouraged to file entry and entry summary data prior to the arrival of the flight in the US. While not a regulatory requirement, the pre-filing of this information will allow CBP to generate the reports in advance of arrival at the inspection site. The "auto-generation" of the sampling plan report is a key benefit.

3. APHIS PPQ and interested importers, with support from ITDS, should review the UNSPSC global product classification codes and propose change requests that will improve the completeness and accuracy of product classification for cut flowers and greenery.

4. CBP and APHIS should create ACE reports to generate the Sampling Breakdown Report and the Cut Flower Data Sheet and train CBPAS in their use.

5. Software providers should revise electronic entry software to support the inclusion of the PGA record set for CBP and APHIS PPQ.

6. Importers should use the updated entry software to generate each PGA record set product line that provides the global product classification code and, as a recommended practice, the product GTIN for each imported product.

Note that in cut flowers, there is a need to quickly promote universal adoption by importers, given that multiple importers normally consolidate shipments onto one flight and that the business case objectives are best accomplished when all products on a single flight are included in the CBP-generated sampling plans and cut flower datasheet reports. However, the common use of only a few software entry systems across the cut flower industry will promote universal adoption, in that once these software entry systems have been modified to support the PG record set, all importers or brokers using one of these entry systems will be able to generate the PG record set.

MEAT AND POULTRY PILOT

OVERVIEW

Product Set Scope: The pilot product set consisted of meat and poultry products typically exported by US suppliers and traders. These products are meats and edible meat offal that have an HTS code from Chapter 2 and processed products with codes from Chapter 16 of the Harmonized Tariff Schedule.

Product Volume: In 2010, about 236,000 export certificates were issued by USDA Food Safety and Inspection Service (FSIS) for US export shipments of meat and poultry valued at over $12.9 billion.

Government Role in Admission: The FSIS is the competent US authority for certifying that US meat, poultry, and processed egg products exported to other countries meet all of the importing country's public health requirements. FSIS does so by issuing an Export Health Certificate for each exported shipment of meat, poultry or processed egg products. FSIS is required by law to certify the wholesomeness and condition of all exported red meat products and optionally for all exported poultry products, and generally accomplishes this through inspection activities required to enable the U.S. mark of inspection. FSIS is in the process of implementing a new information system, the Public Health Information System (PHIS), to manage the domestic and import inspection and export certificate documentation process. Product suppliers use a secure Internet data entry screen to enter 21 product characteristics for each exported product produced at a production location. In FY10, the FSIS had a staff of about 6,500 personnel located in establishments across the country capable of issuing export certificates.

FSIS will issue an Export Certificate of Wholesomeness for all shipments of meat, poultry, and egg products that were produced under federal inspection and comply with U.S. laws and regulations. Many countries accept U.S. meat, poultry and processed egg products produced in federally inspected establishments without additional certification requirements. However, some countries define additional requirements that imported products must meet, including pre-approval of the slaughter, processing and/or storage establishments, and food safety and animal health restrictions on the type of product and how it is produced and labeled, which are published in the export library on the FSIS website. When applying for export certification, U.S. exporters are responsible for ensuring the product is in compliance with the requirements of the importing country.

FSIS inspection personnel verify that all foreign country requirements are satisfied prior to signing the export certificates. Currently, this process is manual, from familiarization of the foreign country's requirements to ensuring product compliance prior to signing the official certificate.

WHAT WE EVALUATED

The pilot evaluated the potential value of using an electronic, global product catalog compliant with GS1 Global Data Synchronization Network (GDSN) standards to access detailed information about commercial meat and poultry products. One pilot objective was to determine if the attributes that FSIS needs to describe exported products in the PHIS system could be populated electronically from the global product catalog. The second pilot objective was to evaluate all the information technology issues involved in creating a data flow between the global product catalog and the PHIS. An overview of the GDSN catalog and PHIS is shown in Figure 11.

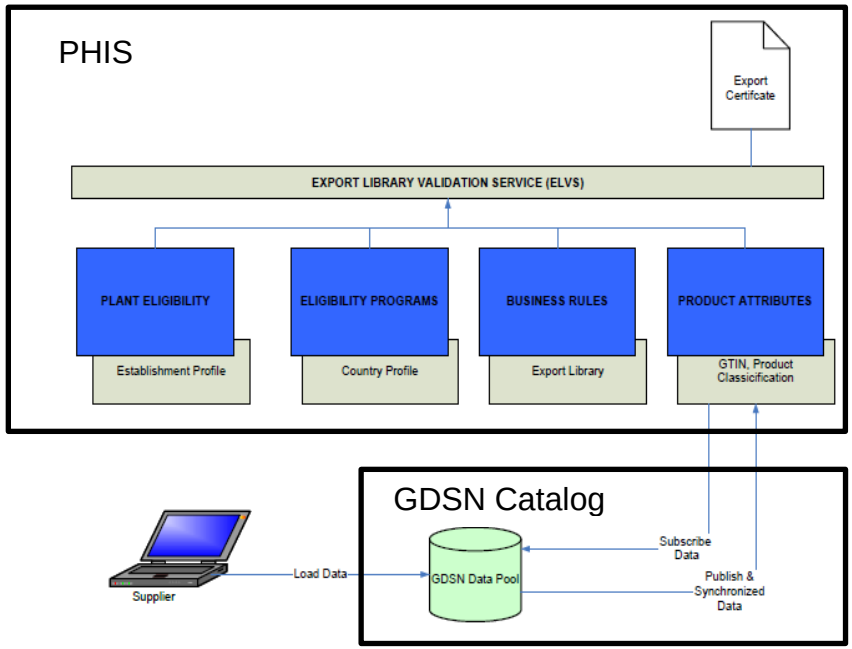

Figure 11: The Relationship between the Product Catalog and the PHIS Data Tables

If successful, the ability to populate the PHIS product data tables from the GDSN catalog will:

- Create time efficiencies for suppliers of exported meat products; and
- Improve the accuracy of the government's PHIS system in documenting the compliance of exported products.

Exporters of meat and poultry products will be able to access the PHIS system and enter information using web-based screens to identify 21 characteristics of each product that they export. Once established, the exporters need to keep the product characteristics updated to reflect changes in existing product descriptions, add new products, and delete products when no longer produced. If the PHIS product characteristics exist or can be deduced from data in the GDSN catalog, the PHIS could receive and automatically create and delete product entries in PHIS and populate the product's characteristics using product information in the GDSN catalog. If successful, meat and poultry product suppliers that publish their product data in GDSN catalogs will not need to use PHIS data entry screens to enter product characterizations in the PHIS. Additionally, the GDSN catalog data subscription process will ensure that all product characterizations are automatically updated in the PHIS whenever product updates are published to the industry-standard catalog.

HOW THE EVALUATIONS WERE PERFORMED

A pilot was conducted by FSIS with a GDSN product catalog service to evaluate the feasibility of using data from the catalog to populate the PHIS product data tables. A competitive contract award was made by FSIS to GS1 US, to evaluate the government's potential use of 1SYNC, a GDSN-compliant product catalog based in the US. A team of FSIS, GS1 US, 1SYNC, and Tyson Foods – a major poultry supplier – was assembled to evaluate the fit of product information available in the catalog with the informational needs of the PHIS. The results of the team's findings were documented in a GS1 US report issued to FSIS in March 2011.[9]

[9] "USDA Food Safety Inspection Service Global Data Synchronization Network Pilot Findings and Recommendations". GS1 US, March 2011. www.itds.gov

WHAT WE OBSERVED

The results of the mapping review of the 21 static PHIS product table data elements to the GDSN product data elements for meat products determined the following:

- Eighteen of the 21 PHIS static product data elements (86 %) can be provided by or deduced from the GDSN catalog;
- Each of the three unmatched static PHIS data elements (second species, third species, anatomical component) can be added to the GDSN catalog through a change request process, which will allow all 21 of the static PHIS elements (100 %) to be populated by the catalog;
- No information technology or security obstacles were identified for the downloading of product information from the industry-standard product catalog to the PHIS, as only standard Internet protocols are used.

The full list of PHIS Product List data elements and their mapping to GDSN catalog data elements is provided in Appendix F.

THE VALUE OF THE BENEFITS

Benefits are created by the efficiency of the data synchronization process used by the catalogs and by the accuracy of the product data, which will improve the accuracy of the export certificates. Benefits are summarized over 5 years for 5 major US suppliers of exported meat and poultry products. The assumptions used to estimate government and trade costs and benefits are summarized in Appendix E.

HARD BENEFITS – Cost Savings Due to Improvements in Export Certificate Documentation:

Improved data accuracy represents the greatest motivation for adopting catalog data synchronization, yet estimating an annual quantitative benefit is a challenge. Although electronic product catalog systems are not error-free, they provide higher quality data than "one-off" data sets maintained manually and independently of the supplier's master product data system. The cost of exporting ineligible product or resolution of documentation errors caused by missing or inaccurate product information in one-off data sets can represent thousands of dollars in losses to exporters for a single shipment and in some cases the commercial value of the entire shipment may be lost when products are refused and alternate markets cannot be found. In worst case scenarios, the shipment of ineligible products can result in the closure of an entire target market to US exports with potential industry impact of

millions of dollars in lost export opportunities. In one past example, the shipment of bone-in product to a country that restricted US meat imports to boneless products only resulted in a temporary ban on imported US red-meat products. To estimate cost savings due to improvements in product information accuracy, the business case will assume that the average cost of resolving a mis-documented shipment is $5,000 per shipment, and that a major exporter has 3 shipments each year that have documentation issues that could be eliminated with accurate product data.

Annual cost savings for trade of eliminating export certificate errors caused by erroneous product characterization for five major exporters:

- 3 [average number of mis-documented shipments per year per exporter] X $5,000 [average cost to remediate trade issue] = $15,000 X 5 [number of exporters] = $ 75,000

FIVE YEAR HARD BENEFIT FOR FIVE EXPORTERS: $75,000 X 5 [recurring] = $ 375,000

SOFT BENEFITS - Efficiencies Created by Data Synchronization with the Electronic Catalog

The efficiency of the data synchronization process allows the government to automatically keep PHIS product information in agreement with the supplier's product information in the electronic catalog. The benefit of this efficiency falls primarily to the supplier, who is the party responsible for populating product information in the PHIS system. The supplier participating in the pilot study, Tyson Foods, has about 100 products that are typically exported, and the time required to manually enter and validate product data for one product in the PHIS product table is estimated to require 30 minutes. Additionally the PHIS product data must be reviewed and validated during the year by suppliers and this process would require an additional 15 minutes throughout the year for each product. Finally, the current PHIS data model requires products to be entered for each production location, so information about the same product produced at three plant locations must be entered three times, once for each plant location. If the average cost of the supplier employee is $25 an hour, then the five-year cost-avoidance benefit for five major suppliers will be:

Annual Cost Avoidance for trade of one-time entry of PHIS product data for five major suppliers:

- 0.5 Hour [average entry time] X 100 [average # of products] X 3 [average number of production locations] X $25/Hour [average hourly wage] = $ 3,750 X 5 [number of exporters] = $ 18,750

Annual Cost Avoidance for trade of avoiding the recurring cost of maintaining PHIS product data for five major suppliers:

- 0.25 Hour [average entry time] X 100 [average # of products] X 3 [average number of production locations] X $25/Hour [average hourly wage] = $ 1,875 X 5 [number of exporters] = $ 9,375

TRADE FIVE YEAR SOFT BENEFIT FOR FIVE EXPORTERS: $18,750 [one-time] + ($9,375 X 5 [recurring]) = $65,625

If the average time for FSIS to research and correct one trade document error is 3 hours of staff time, and the average hourly wage for an FSIS specialist is $58[10] an hour, then the five-year cost-avoidance benefit for the PGA for five major suppliers will be:

Annual Cost Avoidance for PGA of not having to issue corrected trade documentation:

- 3 Hours [average time to correct trade documents] X $58/Hour [average hourly wage] = $174 X 3 [average # of documents to correct] = $522 X 5 [number of exporters] = $ 2,610

PGA FIVE YEAR SOFT BENEFIT FOR FIVE EXPORTERS: $2,610 X 5 [recurring] = $13,050

INTANGIBLE BENEFITS

Leveraging Product Catalog Information to Improve Targeting of US Meat and Poultry Imports: While the scope of this business case is focused on using product catalog information for exported US meat and poultry products, the use of global product classification codes and related product catalog information on imported meat, poultry, and egg products will similarly help to ensure entries are subjected to the required regulatory inspection. FSIS currently relies on the HTS codes and other narrative descriptions, which is often insufficient to determine jurisdiction. The same PHIS data elements leveraged in the export pilot can also be used to improve the targeting efficiency of FSIS regulated imported products.

[10] As of 2011, the pay rate of a GS-13 step 5 FSIS veterinarian stationed in the US is $44.43. With an average benefit cost of 30%, the hourly salary and benefit of a typical FSIS veterinarian with authority to correct documentation would be $57.76.

Protecting Valuable Foreign Markets for US Suppliers: In worst case scenarios, shipment of ineligible meat and poultry products can close an entire foreign target market to US exports with potential industry impact of millions of dollars in lost export opportunities. Although accurate product characterization through the use of industry-standard product catalogs will strengthen US efforts to detect and prevent ineligible product shipments, there was no precise method for quantifying this benefit, so it is left as an intangible benefit for this business case.

THE COST OF CREATING THE BENEFITS

To be able to update the PHIS Product List data with product information in the GDSN catalog, suppliers must first publish their data into the catalog and then FSIS must download the product catalog data and load it into the PHIS Product List. Many major meat and poultry suppliers in the US are already publishing product data into GDSN catalogs. Since companies undertake the publication process for trading partner e-commerce efficiencies, the benefits resulting from the government's use of this data are serendipitous; therefore the supplier's cost of publication is not truly a cost associated with this process, as suppliers will publish product data independently of whether the government utilizes this information.

GOVERNMENT COSTS:

The government's cost of subscribing to a GDSN product catalog and mapping the data into its information system is a cost generated solely to support the creation of this value. Although the cost of subscription to the catalog can be shared with other USDA agencies that have an interest in other catalog information such as product nutritional information, no cost sharing is assumed here. This cost of government implementation is estimated as:

- One-time cost of FSIS programming changes to map data: $50,000
- Recurring Cost of PGA access to product catalogs $40,000

PGA FIVE-YEAR COST FOR CATALOG ACCESS: $50,000 [one-time] + ($40,000 X 5 [recurring]) = $ 250,000

TRADE COSTS:

A review of the 1SYNC catalog shows that all of the top 10 US meat and poultry suppliers and about 75 percent of the top 25 suppliers are publishing product data for their trading partners. Since there is no additional cost to suppliers for allowing governments to download their product data and the trade is not expected to publish product data to a GDSN catalog only for government use, the trade's recurring cost of publishing product information for government use is assumed to be zero. However, the trade may need to incur the one-time cost of populating the values for their GPC brick attributes to the GDSN product catalog for their exported products if they have not already done so. The average cost of entering the brick attribute information to the GDSN product catalog will vary by company, but is estimated to be a one-time cost of $250 [0.1 hour per product * 100 products * $25 = $250].

- One-time Cost of Trade publishing the GPC Attributes to GDSN $250

TRADE COST FOR FIVE EXPORTERS TO PROVIDE BRICK ATTRIBUTE DATA: $ 250 [one-time cost of entering data] X 5 [number of exporters] = $ 1,250

THE COST-BENEFIT ANALYSIS

Cost-benefit is summarized over five years for two implementation scenarios: Six major meat exporters (roughly about 50 % of export volume); and 25 major exporters (roughly about 90 % of export volume) with five of these suppliers implementing every year.

Six major meat exporters (roughly about 50 % of export volume) implementing in Year 1 with an average of 6 problem loads per exporter per year; and the top 25 meat exporters (about 90 % of export volume) with the top 6 exporters implementing the first year and 5 of the next 19 exporters implementing each year from the second year through the fifth year with an average of 2 problem loads per exporter per year.

MEAT AND POULTRY BUSINESS CASE 1: FSIS AND TOP 6 MEAT EXPORTERS USING GLOBAL PRODUCT CATALOG

With six major exporters publishing GPC brick attributes to a GDSN product catalog and PHIS synchronizing that data into the PHIS product table, after five years the total benefit is $1,013,000, the total cost is $251,000, and the net value is $761,000 with a

300% return on investment as shown in Table 17. Cost and benefit distribution is asymmetric, as most of the quantifiable benefit falls to the trade, while most of the cost falls to the PGA. However, the intangible mission delivery benefits for the PGA provide compelling rationale for adoption beyond the immediate benefits defined for the export process.

% of INDUSTRY ADOPTION:	50 %	ROI[11]:	302%	PAYBACK IN:	YEAR 1
TOTAL BENEFIT:	$ 1,013,000	TOTAL COST	$ 251,000	TOTAL NET VALUE	$ 761,000
TRADE:	$ 979,000	TRADE:	$2,000	TRADE	$ 977,000
PGA:	$ 31,000	PGA:	$ 250,000	PGA	$ (219,000)
ANNUAL ROI METRICS	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**
CASH INFLOW (BENEFIT)	221,000	198,000	198,000	198,000	198,000
CASH OUTFLOW (COST)	92,000	40,000	40,000	40,000	40,000
NET VALUE	129,000	158,000	158,000	158,000	158,000
CUM NET VALUE	129,000	287,000	445,000	603,000	761,000
SIMPLE ROI	140%	217%	259%	284%	**302%**

Table 17: Business Case Metrics for 5 Major Meat Exporters Using Product Catalogs to Publish Product Data to FSIS

The hard and soft benefits along with the cost are graphically presented across five years in Figure 12, showing that hard benefit payback occurs in Year 1.

[11] Return on Investment is calculated as an arithmetic return in accordance with $ROI = \frac{(Total\ Benefit - Total\ Cost)}{Total\ Cost}$ and expressed as a percentage.

Figure 12: Cumulative Cost and Benefit for Meat and Poultry Export Products for PGA and Top 6 Exporters Over Five Years

MEAT AND POULTRY BUSINESS CASE 2: FSIS AND TOP 25 MEAT EXPORTERS USING GLOBAL PRODUCT CATALOG

With the top 25 suppliers publishing GPC brick attributes to a GDSN product catalog and PHIS synchronizing that data into the PHIS product table, after five years the total benefit is $1.7 million, the total cost is $256,000, and the net value is $1.4 million with an estimated 560 % return on investment as shown in Table 18.

INDUSTRY ADOPTION:	**90 %**	**ROI:**	**557%**	**PAYBACK IN:**	**YEAR 1**
TOTAL BENEFIT:	**$ 1,681,000**	**TOTAL COST**	**$ 256,000**	**TOTAL NET VALUE**	**$ 1,425,000**
TRADE:	$ 1,633,000	TRADE:	$6,000	TRADE	$ 1,627,000
PGA:	$ 48,000	PGA:	$ 250,000	PGA	$ (202,000)
ANNUAL ROI METRICS	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**
CASH INFLOW (BENEFIT)	220,000	278,000	339,000	399,000	445,000
CASH OUTFLOW (COST)	92,000	41,000	41,000	41,000	41,000
NET VALUE	128,000	237,000	298,000	358,000	404,000
CUM NET VALUE	128,000	365,000	663,000	1,021,000	1,425,000
SIMPLE ROI	139%	274%	381%	475%	**557%**

Table 18: Business Case Metrics for Top 25 Meat Exporters Using Product Catalogs to Publish Product Data to FSIS

Hard benefit payback occurs for the trade in early the first year, but the PGA must recover its cost of investment through intangible benefits of mission effectiveness in protecting foreign markets for US suppliers and the future leveraging of product catalog information to improve targeting efficiency of US meat and poultry imports. The hard and soft benefits along with cost are graphically presented across five years in Table 18.

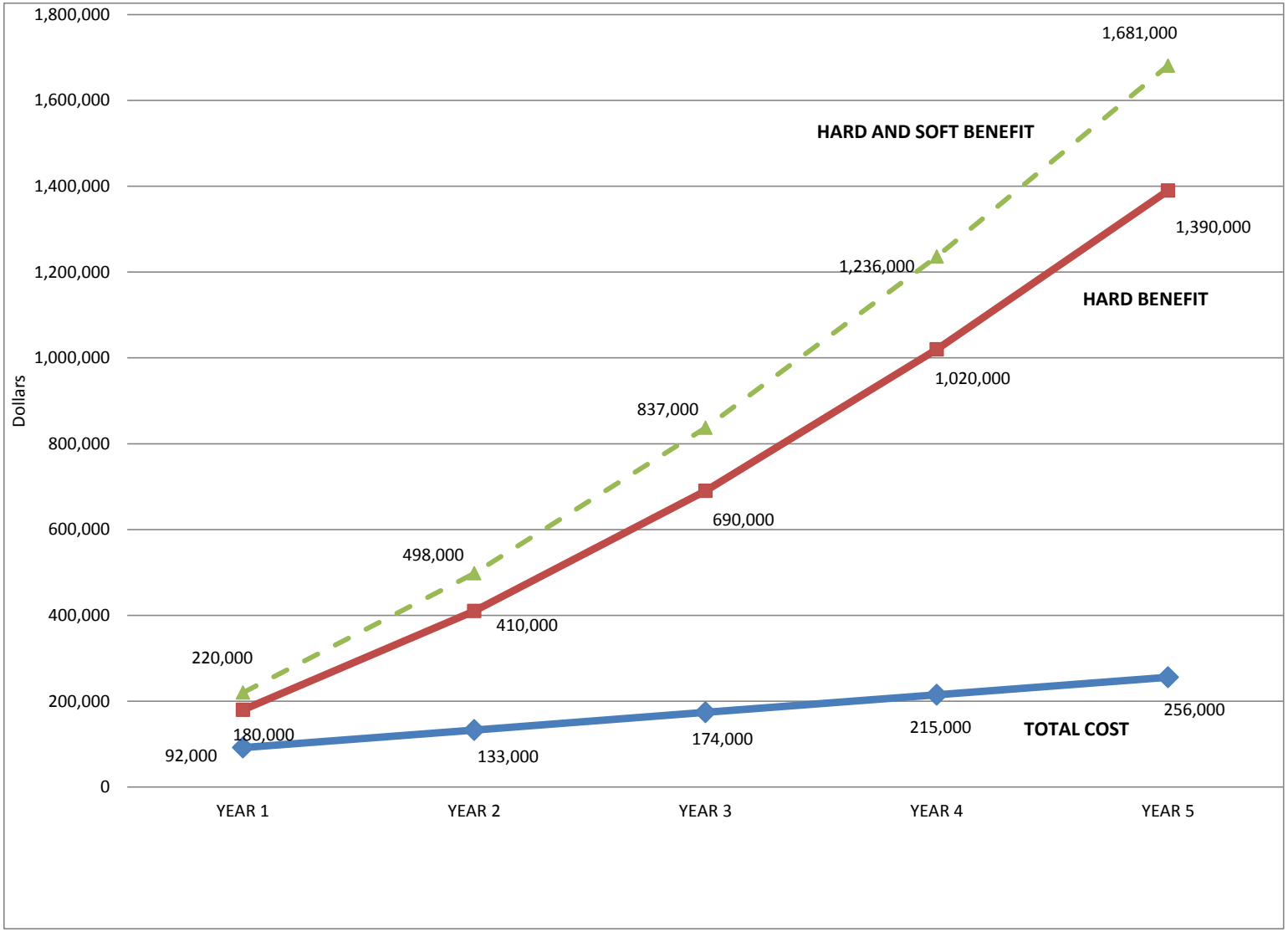

Figure 13: Cumulative Cost and Benefit for Meat and Poultry Export Products for PGA and Top 25 Exporters Over Five Years

Finally, the major components of each cost and benefit for the PGA and the top 25 exporters over a five-year period are shown in Figure 14.

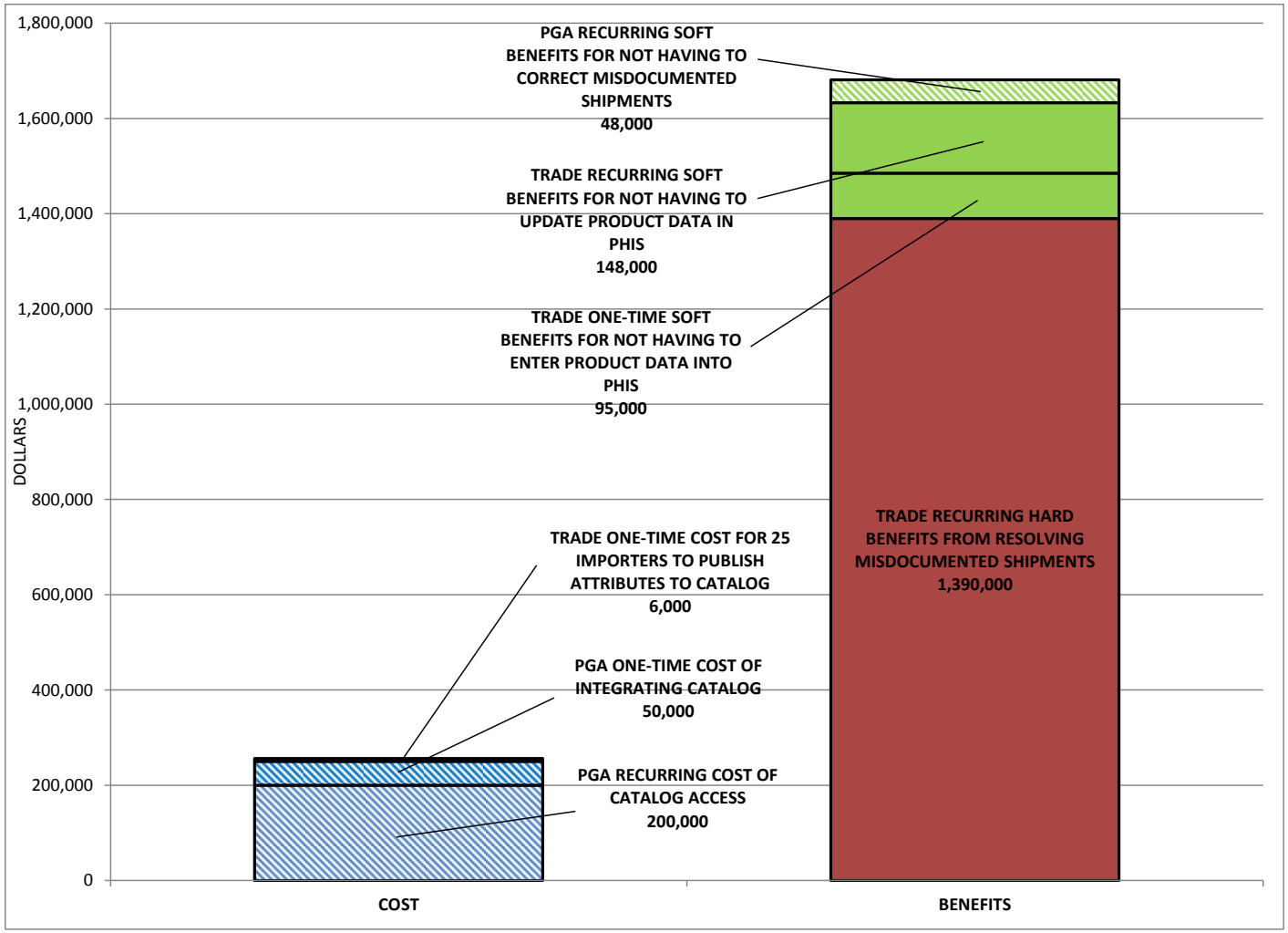

Figure 14: Components of Cost and Benefit for Meat and Poultry Export Products for PGA and Top 25 Exporters Over Five Years

CONCLUSIONS

The estimated 560 percent return on investment, the moderate implementation costs, and the practical experience gained by government in establishing the first government-to-business use of a global product catalog to improve product management at international borders is a potent reason to proceed with the advancement of this business case. For this reason, the PIC members recommend that this business case be given the full support of the ITDS Board, FSIS, and interested trade members and associations.

HIGH-LEVEL NEXT STEPS

Given the projected efficiencies for this business case, the pilot team recommends that FSIS and interested meat and poultry exporters work together to advance the use of this business case in the United States in accordance with the following next steps:

1. FSIS and interested exporters should communicate their interest in adopting the proposed business case and provide estimated implementation timelines.

2. FSIS, with support from interested exporters, should propose change requests regarding the GPC codes and brick attributes that will allow all PHIS static product characteristics to be deduced from published product information in electronic catalogs.

3. FSIS should revise PHIS to support data synchronization with industry-standard, electronic product catalogs and allow the population of PHIS product attributes from electronic product catalog data.

4. Exporters should expand the publication of product information in electronic catalogs to include GPC brick attribute values and ensure that all exported products are published by target market in a GDSN-compliant catalog.

NEXT STEPS FOR THE BUSINESS CASE REPORT

It is clear from the analyses of the pilot studies conducted that the use of e-commerce data will provide value to the government and the private sector. The PIC recommends the following next steps over the coming months to continue the review of these business cases and to raise awareness of potential efficiencies to PGAs, trade communities, and interested national governments:

- Present the final draft business case report to the ITDS Board of Directors – the Board should review and if acceptable, forward to the trade for comment.
- Present the draft report to the ITDS Committee of the Trade Support Network. A conference call should be set up to review the report and answer questions and record comments.
- Present the draft report to the entire Trade Support Network (TSN). The ACE TSN exists to provide private sector comment from all industry sectors.
- Amend the draft report as appropriate after a 45-day comment period to include PGA and trade comments and corrections.
- Approve the final report by the ITDS Board of Directors – the Board should approve the findings and add comments as appropriate.
- Publish the final report by posting it on the ITDS web site and issuing a press release regarding its availability.
- Present the final report to the Border Interagency Executive Council (BIEC). The use of e-commerce data to improve targeting efficiency and generate cost savings for the trade should be of value to the BIEC, which was formed to improve interagency coordination on matters relating to import safety and coordinate priorities for enhancing import safety and trade enforcement.
- Present the final report to CBP for possible inclusion in ACE cargo release requirements.

- Brief interested trade groups and associations on the content of the final report when requested.
- Brief the Information Management Subcommittee of the World Customs Organization Permanent Technical Committee on the content of the final report for the consideration of all interested delegates.

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Robert Berczik, USDA-FSIS
John Blachere, CPSC
Kenneth Bray, Hasbro
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Elsa Cardoso, CBP
Linda Cullen, CBP
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Lela Tripp, Tyson Foods

Douglas Bailey, PIC Chair, USDA-AMS
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APPENDICES

APPENDIX A – PILOT WORKGROUP MEMBERS

The following people served on the PIC pilot workgroups and made key contributions to the establishment and analysis of each pilot business case and the drafting of the pilot report sections:

TOY AND GAME PILOT WORKGROUP

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Douglas Bailey, ITDS

APPENDIX B – LISTING OF ACRONYMS

ABI	Automated Broker Interface
ACE	Automated Commercial Environment
AFIF	Association of Floral Importers of Florida
APHIS	Animal and Plant Health Inspection Service
AQAS	Agriculture Quarantine Activity System
CBP	Customs and Border Protection
CBPAS	Customs and Border Protection Agriculture Specialist
CPSC	Consumer Product Safety Commission
EDI	Electronic Data Interchange
EPA	Environmental Protection Agency
FSIS	Food Safety Inspection Service
HTS	Harmonized Tariff Schedule
GDSN	Global Data Synchronization Network
GPC	Global Product Classification
GTIN	Global Trade Item Number
ITDS	International Trade Data System
MID#	Manufacturer's Identification Number
PGA	Participating Government Agency
PHIS	Public Health Information System
PIC	Product Information Committee
PPQ	Plant Protection and Quarantine
SKU	Stock Keeping Unit
UNSPSC	United Nations Standard Products and Services Code
UPC	Universal Product Code
USDA	United States Department of Agriculture

APPENDIX C – TOY AND GAME COST-BENEFIT ASSUMPTIONS

The assumptions used to develop cost and benefit estimates for the business case for toy and game products are summarized below:

- A top 10 toy importer files on average 49,900 entry invoice lines in a year and a top 50 toy importer files on average 12,200 entry lines in a year.
- The average examination frequency of toy products reviewed by the government is one-half of one percent (0.5 percent).
- The average cost for an importer to have a product examined by CPSC is $1500, including transport to the examination site, devanning, and repacking the container.
- The average hourly wage, including salary and benefits, for a government toy inspector is $46.00 an hour.
- The average time required for a government inspector to examine a toy product is 1.5 hours, including travel time and documentation of results.
- The one-time government cost to revise targeting reports to use global classification codes and GTINs is $250,000.
- The one-time government cost to revise targeting business processes to use global classification codes and GTINs, including training of inspectors, is $250,000.
- The importer cost to update their Automated Broker Interface software to support the generation of the ABI PGA record set is an existing cost and considered to be zero for this business case, as trade-wide changes to the CBP entry record are released by the software providers through normal software maintenance contracts already in place with brokers.
- The average one-time cost of program changes for an importer to include GTINs and GPC brick codes in the entry record is $25,000.

- The increase in low-risk products eligible for paperless release has intangible value to importers.
- The revised targeting reports and procedures have the same recurring maintenance costs as existing reports and targeting business processes.

APPENDIX D – CUT FLOWER COST-BENEFIT ASSUMPTIONS

The assumptions used to develop cost and benefit estimates for the business case for cut flower products are summarized below:

- A major importer averages about 4 inspections a week, with higher numbers of inspections during the 7 weeks of holiday seasons. An inspection represents one site visit by CBPAS to inspect all entries consolidated by multiple importers onto one incoming flight.
- The average time for a CBP agriculture specialist to review the trade documentation at the inspection site to validate the Sampling Breakdown Worksheet and Cut Flower Data Sheet is 1 hour.
- The average time for a CBP agriculture specialist to conduct a cut flower inspection, including validation of the Sampling Breakdown Worksheet and Cut Flower Data Sheet, is 2 hours.
- The average time for a carrier employee to prepare the Sampling Breakdown Worksheet and Cut Flower Data Sheet is 1 hour.
- The average time for a CBP technician to enter the cut flower data from the Cut Flower Data Sheet into the APHIS information system 5 minutes and there are an average of 42 cut flower data sheets to be entered every business day.
- The cost to the trade for inspections ranges from no charge for inspections conducted during regular hours for a specialist, to double the hourly salary of the CBPAS conducting the inspection when that inspector works outside of his or her regular hours.
- The average hourly wage, including salary and benefits, for a government cut flower inspector is $43 an hour.
- The average hourly wage, including salary and benefits, for a government data entry technician is $29 an hour.
- The average hourly wage, including salary and benefits, for a carrier employee is $12 an hour.
- The one-time government cost to create an ACE report to generate the Sampling Breakdown Worksheet or the Cut Flower Data Sheet data is $250,000 each.

- The cost of creating a web service to share cut flower data with the APHIS AQAS system is included in the cost of creating the ACE report.
- The recurring government cost to maintain an ACE report is $1,000 a year.
- The one-time government cost to revise targeting business processes to use the ACE-generated reports, including training of inspectors, is $50,000.
- The importer cost to update their Automated Broker Interface software to support the generation of the ABI PGA record set is zero, as trade-wide changes to the CBP entry record are released by the software providers through normal software maintenance contracts already in place with brokers.

APPENDIX E – MEAT AND POULTRY COST-BENEFIT ASSUMPTIONS

The assumptions used to develop cost and benefit estimates for the business case of using a global product catalog for meat and poultry products are summarized below:

- A typical major exporter has about 100 (possibly ranging from 100 to 300) products (including product styles and packaging variations) depending in part on the number of commodities (e.g., beef, pork, chicken, turkey) exported.
- Average number of production locations for a product is three.
- The average time for a supplier to enter all 21 PHIS product characteristics for one product using the PHIS web interface is about 30 minutes.
- The average time for a supplier to review and validate PHIS product characteristics for one product during the year is about 15 minutes.
- The average hourly salary and benefit cost of a supplier employee that maintains product data is $25.
- The average cost of publishing product data, particularly the brick attributes, to the GDSN product catalog will vary by company, but is estimated to be a one-time cost of $250. (Typically, suppliers will review each product GTIN to determine the attribute values and then populate the values, taking 6 [5 to 7] minutes per GTIN to populate – 6 min X 100 products / 60 X $25 = $250.)
- The average cost savings to trade by eliminating incorrect export documentation per shipment is $5,000.
- The average number of shipments with documentation issues that could be avoided by using catalog product data during one year for one of the top 6 exporters is six and for one of the next 19 top exporters is two.
- The average cost to FSIS to correct one trade document is 3 hours of staff time at $58/hour, or $174.
- The one-time cost of FSIS programming changes to map GDSN data into the PHIS product table is $50,000.

- The annual cost of FSIS accessing a GDSN product catalog is $40,000.

APPENDIX F – PHIS PRODUCT LIST DATA ELEMENT MAPPING TO GDSN CATALOG DATA ELEMENTS

PHIS Product List Data Element	TYPE	MATCH?	GDSN Catalog Data Element
Producing Code	STATIC	YES	Global Trade Item Number
Product as Labeled	STATIC	YES	Trade Item Description
Date Effective	STATIC	YES	Effective Date
Production Facility	STATIC	YES	Production Facility GLN
First Species	STATIC	YES	Map from GPC Brick Code
Second Species	STATIC	YES (w/ CR)	No matching GDSN attribute
Third Species	STATIC	YES (w/ CR)	No matching GDSN attribute
Finished Product Category	STATIC	YES	Map based on GPC brick and brick descriptors
Product Cut	STATIC	YES	GPC Brick Attribute Product Cut
Boneless Claim	STATIC	YES	GPC Brick Attribute Boneless Claim
Level of Cooking	STATIC	YES	GPC Brick Attribute Level of Cooking
Mechanical Processing	STATIC	YES	GPC Brick Attribute Mechanical Processing
Meat Form	STATIC	YES	GPC Brick Attribute Meat Form
Meat Shape	STATIC	YES	GPC Brick Attribute Meat Shape
Non-Thermal Preservation	STATIC	YES	GPC Brick Attribute Non-Thermal Preservation

Primary Additive	STATIC	YES	GPC Brick Attribute Primary Additive
Refrigeration State	STATIC	YES	GPC Brick Attribute Refrigeration State
Anatomical Component	STATIC	YES (w/ CR)	Map from GPC Brick Attribute, Meat Cut, and Meat Form (with change request for missing form values)
Standard Product Package Weight	STATIC	YES	netWeight
Product Weight UOM	STATIC	YES	netWeight UoM
Package Type	STATIC	YES	packagingTypeCode
Export Verification	PROCESS	N/A	Process data element; must be updated once a product has gone through the USDA export verification process
Maturity	TRANS-ACTIONAL	N/A	Maturity of animals
Country of Slaughter	TRANS-ACTIONAL	N/A	Country where animals are slaughtered for processing
Country of Origin	TRANS-ACTIONAL	N/A	Country where animals are born
Foreign Processing Country	TRANS-ACTIONAL	N/A	Country where animals are processed if not the USA

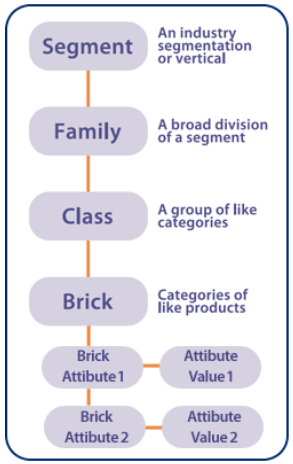
APPENDIX G – OVERVIEW OF GLOBAL PRODUCT CLASSIFICATION AND IDENTIFICATION

GS1

GS1 is the not-for-profit organization that manages and promotes the use of the GS1 standards which are used globally to identify products and locations in a standardized format.

GS1 Global Product Classification (GPC)

GS1 Global Product Classification (GPC) provides a classification system that gives buyers and sellers a common language for grouping products in the same way, everywhere in the world. The foundation of GPC is called a "Brick;" GPC bricks define categories of similar products. Bricks can be further characterized by detailed Brick Attributes as shown below:



Global Trade Item Number® (GTIN)

A globally unique 8, 12, 13, or 14-digit number that uniquely identifies products based on the GS1 Standards. A GTIN is composed of a unique company identifier, an item reference number and a check digit. The Universal Product Code (UPC) is a 12-digit GTIN used at the retail item level for point-of-sale product scanning.

GS1 Global Data Synchronization Network ® (GDSN)

The GS1 Global Data Synchronization Network is a secure, global network that uses industry standards to enable suppliers to share and continuously update the product information used by their customers to accurately order and ship products through the supply chain.

United Nations Standard Products and Services Code® (UNSPSC®)

The United Nations Standard Products and Services Code® (UNSPSC®) provides an open, global, multi-sector standard for efficient, accurate classification of products and services. UNSPSC utilizes a four level classification hierarchy of Segment, Family, Class and Commodity.

APPENDIX H – DETAILED EXAMPLE OF THE CUT FLOWER ABI PG RECORD SET

PGA:	Customs and Border Protection Agriculture Specialists and the Animal and Plant Health Inspection Service	**REPLACES MANUAL GENERATION OF SAMPLING BREAKDOWN / CUT FLOWER DATA SHEET**	**CBP/APHIS**
PRODUCT:	**ADMISSIBLE CUT FLOWERS AND GREENERY**		
BUSINESS CASE:	Imported cut floral products are subject to inspection for live pests by CBP Agriculture Specialists (CBPAS) before entering the domestic supply chain.		
SHIPMENT CHARACTERISTICS:	By reporting the non-mixed products and components of the mixed products using global classification codes in advance of arrival, the tariff rates can be accurately calculated and the Sampling Breakdown Worksheet and the Cut Flower Data Sheet can be generated as a report by the CBPAS, reducing the time required for inspection of the product upon arrival.		
REMARKS:	The example shows an entry for 126 boxes of rose bouquets with rose, pom-pom chrysanthemum, and alstroemeria blooms and 525 boxes of snapdragons. The PGA records for each of the four HTS codes are shown to illustrate how global classification codes are used to indicate how to report the type and number of boxes for each product and the type of flower and number of stems for each product component.		

PGA RECORD SET OVERVIEW:

The essential purpose of each PGA record for the shipment is described below:

PG Record	Description
H	Provides the HTS code of the product or component.
OI	Provides the commercial description of the product.
PG01	Designates APHIS as the recipient, provides the product's commercial global trade item number (SRV = 10123450000191) and provides the intended use code for products intended for consumer use as a non-food product after repackaging (130.000-000). CPBAS will use the information in the PGA record set to clear cut flower shipments on APHIS' behalf.
PG02	Indicates whether the records that immediately follow describe the product (P) or one of its components (C) and provides the global classification code of the product or component (UNS 8-digit code for bouquet type at the product level or

	flower type at the component level). For components, provide a PG02 record showing the global classification code at the product level (rose bouquet = 10341500) and a second PG02 record immediately after the first showing the global classification code of the component (pom-pom chrysanthemum = 10312700).
PG04	Provides the number of stems present in each unmixed product or component of a mixed product with two decimal places (e.g., Snapdragon stems total 52,500.00 and alstroemeria stems in bouquets total 600.00). *NOTE: Report number of stems at the component level and NOT at the product level when components are present. Otherwise the stems will be double-counted.*
PG26	Provides the packaging information at the product level with two decimal places. In the case of the first line item (PG01001), PG26 at level 6 (PG266) represents the amount of product in the smallest container, the box (100.00 stems), and the PG26 at level 5 (PG265) represents the total number of boxes in the entry for that product (126.00 boxes). *NOTE: Report packaging always at the product level and NEVER at the component level.*

PGA RECORD SET EXAMPLE:

The PGA records and values for each record that describe the shipment are detailed below:

```
12345678901234567890123456789012345678901234567890123456789012345678901234567890
H5002CO603110060
OI        ROSE BOUQUET WITH POM POM CHRYSANTHEMUMS, ALSTROEMERIA
PG01001AP   SRV 10123450000191     130.000-000
PG02PUNS 10341500
PG265000000012600BX
PG266000000010000NO
PG02CUNS 10300000
PG04 ROSES                                               000001000000NO

H5002CO603127000
OI        ROSE BOUQUET WITH POM POM CHRYSANTHEMUMS, ALSTROEMERIA
PG01001AP   SRV 10123450000191     130.000-000
PG02PUNS 10341500
PG02CUNS 10312700
PG04 POM POM CHRYSANTHEMUMS                              000000200000NO

H5002CO603190010
OI        ROSE BOUQUET WITH POM POM CHRYSANTHEMUMS, ALSTROEMERIA
PG01001AP   SRV 10123450000191     130.000-000
PG02PUNS 10341500
PG02CUNS 10311700
PG04 ALSTROEMERIA                                        000000060000NO

H5002CO603190040
OI        SNAPDRAGONS
PG01001AP   SRV 10123450099999     130.000-000
PG02PUNS 10316700
PG04 SNAPDRAGONS                                         000005250000NO
PG265000000052500BX
PG266000000010000NO

```

CONTACT INFORMATION:

RESPONSIBLE PROGRAM	Contact Office	Phone Number
CBPAS	APTL	(202) 344-1307
APHIS	PPQ QPAS	(301) 734-8295

APPENDIX I – SUMMARY OF TRADE FEEDBACK ON PIC BUSINESS CASE REPORT

1) **Comment:** Consider using preferred partner programs such as the C-TPAT and ISA to "shrink the size of the haystack" rather than the global product identification and classification codes proposed in the PIC reports.

   Response: C-TPAT and ISA can provide some assurance about the parties to the transaction but do not provide commodity-specific information that the global product identification and classification codes do. In terms of risk assessment and risk management, the two concepts complement each other and both could be used to "shrink the haystack" and "find the needle."

2) **Comment:** Initiatives that improve data for risk assessment should come from Congress rather than from voluntary industry initiatives.

   Response: Congress, as the ultimate authority, will periodically provide direction thru legislation, but there is also value in voluntary, collaborative government-trade initiatives that validate new approaches for improving government efficiency.

3) **Comment:** Although companies use global product information for their general business, no companies are using this information for import purposes and a process would need to be created to support the use of this information in the admissions process.

   Response: The PIC recommendations are proposing for the first time that the product information available in general business transaction systems be used by government in the import process. A smart and efficient supply chain is one where all entities are well informed about the identity and characteristics of the products and parties involved in each shipment.

4) **Comment:** PIC e-commerce data is typically not used by companies to describe raw materials.

   Response: This is an accurate observation noted previously in the PIC reports. However, the fact that e-commerce data is not used universally to identify all products in trade does not diminish its utility for the finished products that it is used for. Efficiency gains made by the government in the admission of finished products will ultimately benefit all importers.

5) **Comment:** Which is the right system to support the PIC e-commerce data, the Automated Broker Interface (ABI) or the Automated Commercial Environment (ACE)?

   Response: The PGA message set is being built for ACE but will use the existing ABI pathway. The Product Information Committee has worked extensively with ITDS and CBP to ensure that ACE will fully support the use of e-commerce data electronically submitted by the trade.

6) **Comment:** Business case estimates are based on a small sample that may not be representative of all trade.

   Response: This is an accurate observation, and the limitations on the extrapolation of business case results to other product sets were carefully noted in the report. All trade and government parties are encouraged to evaluate their own business case using the best information available before committing to an implementation plan.

7) **Comment:** One trade association summarized member survey results regarding the use of e-commerce data with three observations; The trade community is open to the idea of using PIC; U.S. government agencies must demonstrate a commitment to reduce data submissions, clearance times and costs to induce importers to adopt PIC; and U.S. government agencies must promise to use PIC data only for admissibility.

   Response: The PIC agrees that government efficiencies created through the use of e-commerce data need to create a compelling, high-value business case for trade in order to promote broad-scale adoption. The design of the PGA record set ensures that PIC e-commerce data is delivered only to the specified PGA that needs it for product admission.

8) **Comment:** The PIC recommendations distract PGAs and the trade community from the primary goal of ITDS - to minimize the number of data elements submitted to the government for admissibility decisions, which are authorized for collection either by statute or regulation.

   Response: ITDS seeks to implement a single window approach for trade in order to improve government and trade efficiency and minimize unnecessary disruptions to product flow. The PIC recommendations enable these objectives through the strategic use of two data elements defined in the World Customs Organization data model and which, if fully adopted, could reduce the total number of data elements reported.

9) **Comment:** In the era of increasing globalization, government and the trade should be looking more to global standards and programs for increased harmonization.

   Response: All e-commerce data elements proposed by the PIC are global standards in the public domain that are actively used by global trading companies throughout the world.

10) **Comment:** Implementation of PIC recommendations may divert precious resources from critical automation projects, like the cargo release function of the ACE.

    Response: The PIC recommendations are designed to complement automation projects underway or planned and to enhance the overall efficiency of cargo release functions.

11) **Comment:** Could the GTIN for individual products be used as a reference to detailed product information in a catalog that government agencies could use to address specific risk criteria related to the admissions decision? If so, it seems that each participating agency would then need only that GTIN and no other product data.

    Response: Yes, the use of industry-standard product catalogs and product classification attributes would provide this capability as described in the report's meat and poultry business case. The provision of a GTIN for products published in these catalogs should reduce or eliminate the need for other transactional product data, since government can download information about the product's risk factors, including pictures of the product, from the catalog.