

In the
United States Court of Appeals
For the Seventh Circuit

No. 23-3366

UNITED STATES OF AMERICA,

Plaintiff-Appellee,

v.

TANGTANG ZHAO,

Defendant-Appellant.

Appeal from the United States District Court for the
Northern District of Illinois, Eastern Division.
No. 1:21-cr-00505-1 — **Manish S. Shah**, Judge.

ARGUED NOVEMBER 8, 2024 — DECIDED JUNE 23, 2025

Before RIPPLE, HAMILTON, and KIRSCH, *Circuit Judges*.

HAMILTON, *Circuit Judge*. In late 2020, the federal government implemented a vaccination program to immunize the public against the novel coronavirus, COVID-19. The government supplied private entities with vaccine doses and ancillary supplies at no cost, so long as the entities agreed to comply with the terms of a provider agreement. Among the items the government provided were COVID-19 vaccination record cards to be completed and given to each vaccine recipient.

During the pandemic, defendant-appellant Tangtang Zhao, a pharmacist employed at Walgreens, took blank vaccination cards from his workplace and sold them on eBay.com for his personal benefit. Zhao was charged with and convicted on twelve counts of theft of government property in violation of 18 U.S.C. § 641. On appeal, he argues that the government presented insufficient evidence to prove that the vaccination cards were government property when he took them from his workplace. He also challenges the trial judge's response to the jury's question about the definition of government property and parts of the jury instructions.

We affirm. To secure a conviction under section 641, the government had to prove that it maintained sufficient "supervision and control" over the vaccination cards in Walgreens' possession. See *United States v. Wheadon*, 794 F.2d 1277, 1283–84 (7th Cir. 1986). The government presented evidence that it controlled the use and distribution of the cards, retained access to the cards for quality assurance purposes, and could terminate Walgreens' participation in the vaccination program for failure to comply with the provider agreement. From that evidence, the jury could find that the government's supervision and control over the vaccination cards was sufficient to retain their federal character. The trial court also did not err in denying Zhao's motions for judgment of acquittal, in answering the jury's question, or in instructing the jury.

I. *Factual and Procedural Background*

A. *The COVID-19 Vaccination Program*

The evidence presented at trial established the facts as follows. On January 31, 2020, the Secretary of the Department of Health and Human Services (HHS) declared a national public

health emergency due to the spread of a novel coronavirus known as COVID-19. On March 13, 2020, the President declared a national emergency. During the ensuing months, the federal government worked with pharmaceutical and biotechnology companies to develop effective vaccines for COVID-19 with unprecedented speed. The 2023 Nobel Prize in Physiology or Medicine was awarded to Katalin Karikó and Drew Weissman for their discoveries that enabled the development of effective vaccines using messenger RNA molecules.

The federal government raced to distribute the new vaccines as widely and quickly as possible. The government distributed the new vaccines at no cost to providers that enrolled in the Centers for Disease Control and Prevention's (CDC) COVID-19 vaccination program. At the same time, the federal government contracted with a private company to procure and distribute "ancillary kits" that contained supplies needed to administer the vaccines. The ancillary kits were also provided at no cost to providers authorized to distribute COVID-19 vaccine doses. The kits included COVID-19 vaccination record cards. The CDC provided a template for the cards' design specifying their dimensions and contents. The cards featured both HHS's and the CDC's official symbols. After the kits were assembled, they were shipped to authorized providers. Pursuant to the procurement contract, the kits, including the vaccination cards, became the federal government's property after the government was invoiced, and they remained government property throughout the shipping process.

CDC entered into agreements to distribute the vaccine with certain large retail pharmacy corporations, including Walgreens. In January 2021, Walgreens began providing in-

store vaccinations pursuant to its agreement with the CDC. The agreement prohibited Walgreens from selling or seeking reimbursement for the vaccine and ancillary supplies. It required Walgreens to give each vaccine recipient or his or her legal representative a completed vaccination card. The agreement also included a hyperlink to a page on the CDC's website that provided updated guidance and required providers to "monitor such identified guidance for updates and comply with such updates."

B. Defendant's Thefts and Sales of COVID-19 Vaccination Cards

Between March 24 and April 13, 2021, defendant Zhao was employed as a pharmacist at a Walgreens administering the COVID-19 vaccines. During this period, he listed 658 COVID-19 vaccination cards for sale on eBay. He sold 630 of those cards, raising the cards' price over time from \$7.99 each to a high of \$10.99 per card. Zhao received at least \$5,600 from selling vaccination cards. Some of the people who bought a vaccination card reported doing so out of fear that unvaccinated people might be arrested or that the vaccination cards might be necessary to obtain food. In the title of the eBay listings and in communications with potential purchasers, Zhao emphasized the cards' authenticity.

eBay sent Zhao five notices that it had removed his listings because they violated eBay's government items policy. Zhao's account was eventually placed on a 10-day selling restriction. After a reporter contacted Zhao through his eBay account, Zhao stopped selling vaccination cards and told eBay users inquiring about additional vaccination cards that his account had been hacked.

C. Criminal Proceedings

A grand jury charged Zhao with twelve counts of theft of government property in violation of 18 U.S.C. § 641.¹ The case was tried to a jury. At the close of the government's case, Zhao moved for a judgment of acquittal on all counts. He argued primarily that the government had not shown that the vaccination cards were government property at the time he took them. The district court denied the motion, and the jury found Zhao guilty on all counts.

After trial, Zhao renewed his motion for judgment of acquittal. The district court denied his motion. The court sentenced Zhao to a one-year term of probation and imposed a

¹ 18 U.S.C. § 641 reads as follows:

Whoever embezzles, steals, purloins, or knowingly converts to his use or the use of another, or without authority, sells, conveys or disposes of any record, voucher, money, or thing of value of the United States or of any department or agency thereof, or any property made or being made under contract for the United States or any department or agency thereof; or

Whoever receives, conceals, or retains the same with intent to convert it to his use or gain, knowing it to have been embezzled, stolen, purloined or converted —

Shall be fined under this title or imprisoned not more than ten years, or both; but if the value of such property in the aggregate, combining amounts from all the counts for which the defendant is convicted in a single case, does not exceed the sum of \$1,000, he shall be fined under this title or imprisoned not more than one year, or both.

The word "value" means face, par, or market value, or cost price, either wholesale or retail, whichever is greater.

\$5,600 fine. Zhao has appealed. He challenges the denial of his motion for a judgment of acquittal on the ground that the government failed to produce evidence sufficient to prove that the vaccination cards remained government property at the time of the theft. He also challenges the district court's response to the jury's request for clarification regarding the definition of government property. Finally, he challenges the district court's jury instruction defining "value" and its instruction about Zhao's knowledge.

II. Discussion

A. Sufficiency of the Evidence

Zhao argues primarily that there was insufficient evidence to prove the vaccination cards were government property when he stole them from Walgreens. "We review de novo a district court's denial of a motion for a judgment of acquittal for insufficient evidence." *United States v. Godinez*, 7 F.4th 628, 638 (7th Cir. 2021). We construe the evidence in the light most favorable to the government, and we affirm the jury's verdict if any rational trier of fact could have found the offense's elements satisfied beyond a reasonable doubt. *Id.*, citing *Jackson v. Virginia*, 443 U.S. 307, 319 (1979). "This is usually a high hurdle for a defendant to clear, but 'the height of the hurdle depends directly on the strength of the government's evidence.'" *United States v. Kelerchian*, 937 F.3d 895, 907 (7th Cir. 2019), quoting *United States v. Garcia*, 919 F.3d 489, 496–97 (7th Cir. 2019).

To establish a violation of 18 U.S.C. § 641, the government had to prove that Zhao stole or knowingly converted a "thing of value of the United States"—i.e., government property. *United States v. Kristofic*, 847 F.2d 1295, 1296 (7th Cir. 1988).

The key question here under section 641 is whether the government maintained a property interest in the vaccination cards at the time of theft or conversion. See *United States v. Maxwell*, 588 F.2d 568, 573 (7th Cir. 1978). To answer that question in this case, both parties cite a line of cases involving funds stolen after the government distributed them to third parties. Those cases establish that legal title is not dispositive. Rather, property distributed to a third party remains government property within the meaning of section 641 if “the federal government still maintained supervision and control over the funds at the point when the funds were converted.” *United States v. Wheadon*, 794 F.2d 1277, 1283–84 (7th Cir. 1986).

Although money is not perfectly analogous to tangible items like the vaccination cards in this case, the federal funding cases provide a useful starting point for our analysis. In each case, the defendants were involved in administering federally funded programs from which they misappropriated money. See *Kristofic*, 847 F.2d at 1299. In *Wheadon*, for example, we affirmed the convictions of the executive director of a local housing authority who had been siphoning federal funds allocated for low-income housing projects. 794 F.2d at 1279–80. Regardless of the federal program at issue, we applied “the supervision and control test to determine ownership as between the federal government and an organizational ‘conduit’ for federal funds.” *Kristofic*, 847 F.2d at 1299 (footnote omitted).

This case involves the same basic inquiry. The vaccination cards indisputably belonged to the federal government before they were delivered to Walgreens. At that point, Walgreens took possession of the cards as an organizational conduit for

the government's vaccination program. If the government maintained enough supervision and control over the vaccination cards in Walgreens' possession to retain the cards' "federal character," *id.* at 1297–98 (internal quotation marks omitted), the cards were government property for purposes of section 641 at the time Zhao stole them from his workplace.

Determining whether the government maintained sufficient supervision and control over stolen property in a third party's possession requires a fact-intensive inquiry. Case law in this circuit and others has identified several categories of evidence that may be relevant and probative, including: whether the government retained a reversionary interest; whether the government restricted the use of the property; whether the government imposed internal controls; whether the government had the right to inspect or access the private entity's records; statutory or regulatory provisions governing the property; and whether the government had the right to terminate the contract or cut off funding to the private entity. See *Wheadon*, 794 F.2d at 1284–85; *United States v. Scott*, 784 F.2d 787, 790–91 (7th Cir. 1986); *Maxwell*, 588 F.2d at 571–72; see also *United States v. Osborne*, 886 F.3d 604, 611–12 (6th Cir. 2018) (summarizing relevant factors identified by Sixth Circuit and other circuits' case law). But courts "have not explicitly indicated the relative importance or weight of the various factors," *Osborne*, 886 F.3d at 612, and other factors may be relevant depending on the case.

After taking a fresh look at the evidence presented at trial, we agree with the district court's analysis. The vaccination cards were distributed to private entities like Walgreens as part of a government-led program to develop and distribute vaccines for COVID-19 as rapidly as possible. The

government presented evidence that the participants in the vaccination program shared a collective understanding that the cards were government property until given to a vaccinated patient. Most revealing, Walgreens' Director of Immunizations testified that he understood the vaccines and ancillary kits to be property of the federal government because they were provided free of charge.

That understanding is corroborated by the CDC's June 11, 2021 announcement that "all USG-furnished ancillary materials, including COVID-19 Vaccination Record Cards, have remained property of the United States Government for exclusive use in the CDC COVID-19 Vaccination Program since the program's inception." Upon announcement, that language was expressly incorporated into the provider agreement. Although all of Zhao's sales occurred before that June 2021 announcement, a jury could reasonably infer that the announcement was an accurate statement of the cards' status since the inception of the vaccination program—especially since in February 2021, before defendant's charged conduct, the CDC posted an update on its website saying that the COVID-19 vaccines remained government property until administered to the vaccine recipient. The vaccines and ancillary kits were distributed for the same purpose and governed by the same agreements, so the status of the vaccines could fairly be imputed to the vaccination cards as well.

The government also placed restrictions on how the vaccination cards were to be used. The provider agreement prohibited Walgreens from selling the vaccination cards. The agreement also required Walgreens to issue completed cards to each vaccine recipient or her legal representative. As the district court explained, a jury could have inferred from this

condition that Walgreens was prohibited from handing out blank vaccination cards. The government also had the right to inspect the vaccination cards in the custody of the pharmacies. It could also terminate participation in the vaccination program for non-compliance with the terms of the provider agreement, including those pertaining to the vaccination cards. The government's use restrictions, right to access vaccination cards in Walgreens' custody, and right to terminate provider agreements together signaled that the government maintained sufficient supervision and control over the cards for them to retain their federal character.

Zhao emphasizes that the government did not retain a reversionary interest in the vaccination cards and that certain aspects of the vaccination program were not tightly controlled. For example, the government did not impose record-keeping requirements to track unused vaccination cards or issue guidance about how to store or secure blank cards.

If the government has a revisionary interest in the property in question, that is a "particularly compelling" piece of evidence of control and supervision, though a reversionary interest is not necessary to establish control and supervision. *Wheadon*, 794 F.2d at 1285; see also *Osborne*, 886 F.3d at 617 ("Although failing to retain a reversionary interest alone may not be fatal, it does require showing a greater exercise of supervision or control via other means"). Many of our cases upholding section 641 convictions rely, in part, on the government's right to demand repayment of surplus funds. See, e.g., *Scott*, 784 F.2d at 790–91; *United States v. Mitchell*, 625 F.2d 158, 161 (7th Cir. 1980); *Maxwell*, 588 F.2d at 572. In the absence of a reversionary interest, we have upheld a section 641 conviction based on evidence of more onerous use and tracking

restrictions than those shown by the evidence in this case. See, e.g., *Wheadon*, 794 F.2d at 1284–85 (upholding conviction based on evidence that federal government retained control through quarterly reports; access to all records of third party; imposing duty to maintain and keep accurate records on third party; right to terminate any contract; right to cut off funding and to approve any disbursements; right of prior approval on all contracts, proposals, and appropriations; and right to conduct on-site inspections).

We need not decide whether the extent of supervision and control shown here would be sufficient in a case of money stolen or embezzled from a recipient of federal funds. On the facts of this case, with the stolen vaccination cards, the absence of more onerous conditions of participation in the vaccination program does not undermine the jury’s verdict. The purpose of the supervision-and-control test is to resolve “the jurisdictional question whether the crime committed had been against the federal government.” *Kristofic*, 847 F.2d at 1299. Federal jurisdiction is satisfied by the federal government’s “continuing responsibility to see that the federal funds are spent as Congress intended.” *United States v. Hamilton*, 726 F.2d 317, 321 (7th Cir. 1984) (analogous crime under 18 U.S.C. § 665), cited with approval by *United States v. Brown*, 742 F.2d 359, 362 (7th Cir. 1984) (affirming section 641 convictions).

A reasonable jury could conclude that, under the circumstances of the vaccination cards’ distribution, the absence of a reversionary interest in the cards did not diminish or eliminate the government’s responsibility to see that the vaccination cards were used only as intended. A procurement official testified that the government’s decision not to seek the return of unused ancillary supplies was motivated by concern about

storage conditions and COVID-19 transmission. The jury could have credited this testimony and concluded that the government's cautious approach to disposing of excess vaccination cards promoted the goals of the vaccination program without diminishing the federal character of the vaccination cards.

Further, even though the provider agreement did not include a mechanism for returning surplus vaccination cards, Walgreens did not act as if it had the right to use or dispose of excess cards as it pleased. Rather than find another use for excess cards, Walgreens worked with the CDC to shred and destroy them, ensuring that the cards would be used only as intended in the vaccination program. The cooperation between the CDC and Walgreens on the disposal of excess cards is further evidence that the federal government had and exercised a continuing responsibility to see that the vaccination cards were used pursuant to the provider agreement.

The other aspects of the vaccination program on which Zhao relies are not dispositive of the jurisdictional question either. The supervision-and-control test is fact-sensitive, *Osborne*, 886 F.3d at 609, so both the nature of the stolen property and the emergency context in which the vaccination program took place are highly relevant to our analysis. As far as record-keeping requirements and other internal controls go, we might expect the government to treat vaccination cards differently than federal grant money. Federal grants are fungible with other sources of funding, and they carry an obvious risk of misappropriation. Evidence that the government required a third party to keep federal funds separate and traceable and/or to maintain accurate records is important to show that

the funds retained their federal identity. Once a grant “is paid over to the end recipient, utilized, commingled or otherwise loses its identity,” the money ceases to be federal. *United States v. Harris*, 729 F.2d 441, 447 (7th Cir. 1984) (analogous offense under 18 U.S.C. § 657), quoting *United States v. Smith*, 596 F.2d 662, 664 (5th Cir. 1979), cited with approval by *Brown*, 742 F.2d at 362 (affirming section 641 convictions).

Unlike money, the vaccination cards, which were designed and printed pursuant to federal specifications, were not fungible with other property in the hands of authorized vaccine providers. Because vaccination cards are not fungible with non-federal property, they do not present the tracing problems created by federal grants. Cf., e.g., *Harris*, 729 F.2d at 446–47 (explaining that government would lose its interest in federal funds if those funds became untraceable). And at the beginning of the vaccination program, the cards’ potential for misappropriation was not obvious. In light of these differences between grant money and vaccination cards, the lack of evidence of extensive recordkeeping and tracking requirements does not undermine the jury’s verdict, at least as a matter of law. The government did not need to impose such restrictions—which may have been reasonably rejected as burdensome and unnecessary to accomplish the goals of the vaccination program—to retain the cards’ federal character.

Finally, the jury could reasonably conclude that the government exercised less supervision and control than it might have otherwise due to the magnitude of the public health emergency and the speed at which the government moved to address it. As witnesses testified, the pandemic presented a fluid and constantly evolving situation, requiring the government and vaccine providers to adjust quickly to new

information, sometimes on a day-to-day basis. The jury could have reasonably taken emergency conditions into account when determining how much supervision and control the government needed to exercise to maintain the federal character of the cards in Walgreens' possession.²

Applying the deference owed to a jury's verdict of conviction, we conclude that a reasonable jury could find that the vaccination cards were government property at the time of conversion. While the government's control over the vaccination cards was not airtight, it was sufficient to retain the cards' "federal character," *Kristofic*, 847 F.2d at 1298 (internal quotation marks omitted), in the context of a public health emergency and a vaccination program executed at an unprecedented pace.

² Zhao also argued to the jury that the government abandoned the vaccination cards once they were distributed to Walgreens. Abandoned property cannot be converted. See *Morissette v. United States*, 342 U.S. 246, 271 (1952). The supervision-and-control test is not intended to resolve whether a theft occurred at all. See *Kristofic*, 847 F.2d at 1298. But our analysis above shows that a jury could have easily rejected Zhao's alternative theory. "[P]roperty is considered to be abandoned when the owner, intending to relinquish all rights to the property, leaves it free to be appropriated by any other person." *Toll Processing Services, LLC v. Kastalon, Inc.*, 880 F.3d 820, 824 (7th Cir. 2018), quoting *Bell Leasing Brokerage, LLC v. Roger Auto Service, Inc.*, 865 N.E.2d 558, 564 (Ill. App. 2007). The vaccination cards were clearly not intended to be appropriated by "any other person." They were distributed only to authorized pharmacies pursuant to an agreement that specified their intended use, and Walgreens worked with CDC to destroy cards that were not used for that purpose. The weakness of Zhao's alternative theory reinforces the reasonableness of the jury's verdict.

B. *Response to the Jury's Question*

Zhao also argues that the district court plainly erred in responding to the jury's request for clarification on the definition of government property. The court's final instructions told the jury that an "item or thing of value belongs to the United States if the federal government maintains sufficient supervision and control over the property after the property was distributed to some other entity." During deliberations, the jury sent a note to the court asking: "What defines sufficient supervision and control?" The court responded: "There is no additional definition of sufficient supervision and control. That is an issue for you to decide."

Plain-error review is not available when the defendant waives his objection in an "intentional relinquishment or abandonment of a known right." *United States v. Olano*, 507 U.S. 725, 732–33 (1993), quoting *Johnson v. Zerbst*, 304 U.S. 458, 464 (1938). Because Zhao expressly approved the district court's proposed response to the jury's question, he has waived this argument. See *United States v. Prothro*, 41 F.4th 812, 832 (7th Cir. 2022) (defendant waived challenge to response to jury question by approving response's proposed language); *United States v. Harden*, 893 F.3d 434, 452 n.3 (7th Cir. 2018) (same).

Even if plain-error review were available, reversal would not be warranted because the district judge did not err in responding to the jury's question. See *Puckett v. United States*, 556 U.S. 129, 135 (2009) (reversal appropriate only if a plain error affected defendant's substantial rights and seriously affected the fairness, integrity, or public reputation of judicial proceedings). District judges have considerable discretion on both whether and how to answer a jury's question. E.g.,

Prothro, 41 F.4th at 831; *United States v. Sims*, 329 F.3d 937, 943 (7th Cir. 2003). We consider three factors when reviewing the language of a supplemental instruction or answer to a jury question: “1) whether the instruction as a whole fairly and adequately treated the issue; 2) whether the supplemental instruction was a correct statement of law; and 3) whether the district court answered the jury’s question specifically.” *Sims*, 329 F.3d at 943.

Because the supervision-and-control test is a clear and correct statement of when property distributed to third parties remains a “thing of value of the United States” under section 641, the district court did not err by repeating it. See *United States v. Durham*, 645 F.3d 883, 894 (7th Cir. 2011); see also *Republic Technologies (NA), LLC v. BBK Tobacco & Foods, LLP*, 135 F.4th 572, 580 (7th Cir. 2025) (“It is rare for us to vacate a judgment based on a district court’s decision not to issue a clarifying response when the initial instruction was a correct statement of law.”). Zhao contends that the court should have provided the jury with additional guidance in the form of factors that appellate decisions have considered when applying the supervision-and-control test.

In some cases, it may be appropriate to supplement a jury instruction by identifying specific factors for the jury’s consideration. The utility of a multi-factor approach likely depends on the legal context, the clarity of applicable case law, and the phrasing of the instruction. See *United States v. Brown*, 726 F.3d 993, 1004 (7th Cir. 2013) (explaining, in context of buyer-seller instructions in drug conspiracy cases, that our cases “do not prohibit a multi-factor approach *per se*” but do require careful attention to how a multi-factor instruction is formulated), overruled on other grounds by *United States v.*

Page, 123 F.4th 851, 862 (7th Cir. 2024) (en banc). The district court has substantial discretion to decide whether supplementing jury instructions with specific factors is appropriate. See *United States v. Papia*, 560 F.2d 827, 843 (7th Cir. 1977) (“Generally, the necessity, extent and character of supplementary instructions on the law requested by a jury are matters within the sound discretion of the trial court”).

Reasonable minds could disagree about the utility of a multi-factor approach to defining government property on the facts of this case. Even experienced jurists and attorneys can find multi-factor tests difficult to apply, especially when the factors are unweighted. See *Marrs v. Motorola, Inc.*, 577 F.3d 783, 788 (7th Cir. 2009). The factors that Zhao identifies from our case law are not only unweighted but adapted from a different factual context involving funds instead of tangible items. As we indicated above, some of the factors identified by our case law are tailored to the characteristics of financial instruments. Although those factors provided a good starting point for us to apply the supervision-and-control test to the government’s conduct in this case, they were not necessarily ideal guideposts for a jury composed of laypersons.

In light of these features of our section 641 case law, it is far from clear whether further guidance about the supervision-and-control test would have been more likely to help the jurors or confuse them. The district court was best situated to decide which outcome was more likely given Zhao’s offense conduct, the evidence presented, and the parties’ closing arguments. Judge Shah acted well within his substantial discretion by reiterating the legal standard and leaving the jury to rely on its “intuition and common sense” to evaluate whether the vaccination cards were government property. *United*

States v. Johnson, 916 F.3d 579, 586 (7th Cir. 2019) (encouraging district courts to use “simple and succinct instructions [that] invite the jury to rely on its own intuition and common sense in resolving the cases”; affirming jury instructions listing the *Duran* factors for determining a dealer’s purpose for carrying a weapon).

C. Jury Instructions

Finally, Zhao challenges the district court’s instructions on the value of the stolen property and Zhao’s knowledge about the stolen property. Because he failed to object to either instruction on the grounds raised on appeal, we review his challenges only for plain error. Fed. R. Crim. P. 30(d); *United States v. Gan*, 54 F.4th 467, 478 (7th Cir. 2022); *United States v. Wheeler*, 540 F.3d 683, 689 (7th Cir. 2008) (raising substantively different objection is not sufficient to preserve new argument for appeal). Zhao argues that the jury instructions were erroneous in two respects.

First, Zhao takes issue with the court’s instruction about the time at which value is established. Section 641 requires the jury to determine whether the value of the stolen property at issue exceeded \$1,000. Consistent with the pattern instructions for this circuit, the district court instructed the jury as follows: “‘Value’ means face value, market value, or a price actually paid for the item in question, whichever is greater. Market value is the price someone would be willing to pay for the item to someone else willing to sell it.” See The William J. Bauer Pattern Criminal Jury Instructions of the Seventh Circuit, at 291 (Instruction for 18 U.S.C. § 641, “Definition of Value”). The court further instructed the jury: “Value is established at the time of possession rather than at the time of theft.” Zhao argues that the court’s instruction about the time

when value is established misstated the law as set forth in *United States v. Brookins*, 52 F.3d 615 (7th Cir. 1995).

The district court did not err, much less plainly so, by instructing the jury to consider the value of the vaccination cards while they were in Zhao's possession. The last paragraph of section 641 permits "a number of different methods of valuation for the purposes of determining whether a violation should be classified and sentenced as a misdemeanor or as a felony." *United States v. Oberhardt*, 887 F.2d 790, 792 (7th Cir. 1989). Measuring value at the time of the defendant's possession reflects the value that the stolen property fetches on the "thieves' market," which may be substantially higher than other measures of value. See *United States v. Ditata*, 469 F.2d 1270, 1272 (7th Cir. 1972). Our case law, including *Brookins*, has long held that the price stolen property fetches on the "thieves' market" is a permissible measure of value under section 641. See *Brookins*, 52 F.3d at 619–20 ("Furthermore, the Court allows the use of a 'thieves' market' as 'an appropriate method for determining the "market value" of [stolen] goods'" (quoting *Oberhardt*, 887 F.2d at 792)); see also *Ditata*, 469 F.2d at 1272–73 (district court properly instructed jury to determine value of stolen items as of dates of defendant's possession of them instead of date they were stolen; citing cases reviewing section 641 convictions). Determining value at the time of possession was particularly appropriate in this case because the cards' value on eBay was substantially higher than the per-unit cost the government paid to produce the cards, which it provided for free to Walgreens and other distributors.

Second, Zhao argues that the value instruction and the possession-of-stolen-property instruction were erroneous

because they presupposed that a theft necessarily occurred. This argument is meritless. We “consider the jury instructions in their entirety, rather than in ‘artificial isolation.’” *United States v. Webber*, 536 F.3d 584, 599 (7th Cir. 2008), quoting *United States v. Westmoreland*, 122 F.3d 431, 434 (7th Cir. 1997). The value instruction’s reference to the time of theft followed earlier instructions that required the jury to find first whether Zhao stole the property. The possession-of-stolen-property instruction informed the jury that it could infer that Zhao knew the property was stolen only “[i]f” it found that he “was in possession of property that recently had been stolen.” The instruction was worded conditionally and permissively, so it did not assume that a theft occurred.

In any event, Zhao cannot establish that any error affected his substantial rights. See *Puckett*, 556 U.S. at 135. At trial, Zhao did not meaningfully contest the value of the vaccination cards or whether he stole them from Walgreens. On appeal, he does not argue that the cards’ price on eBay did not accurately reflect their market value. And although Zhao suggests that the government failed to prove that he stole the blank vaccination cards from Walgreens, he does not actually challenge the sufficiency of the evidence for that element of section 641. Regardless, the government presented sufficient evidence at trial for a jury to conclude beyond a reasonable doubt that Zhao knowingly stole vaccination cards from his workplace.

AFFIRMED.