

GAO

Testimony

Before the Subcommittee on Economic  
Development, Public Buildings, and Emergency  
Management, Committee on Transportation and  
Infrastructure, House of Representatives

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FEDERAL COURTHOUSE  
CONSTRUCTION

Preliminary Results Show  
Better Planning, Oversight,  
and Courtroom Sharing  
Could Help Control Future  
Costs

Statement of Mark L. Goldstein, Director  
Physical Infrastructure Issues



GAO

Accountability \* Integrity \* Reliability

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Highlights of [GAO-10-753T](#), a testimony before the Subcommittee on Economic Development, Public Buildings, and Emergency Management, Committee on Transportation and Infrastructure, House of Representatives

## Why GAO Did This Study

The federal judiciary and the General Services Administration (GSA) are in the midst of a multibillion-dollar courthouse construction initiative, which began in the early 1990s and has since faced rising construction costs. As requested, for 33 federal courthouses completed since 2000, GAO examined (1) whether they contain extra space and any costs related to it, (2) how their actual size compares with the congressionally authorized size, (3) how their space based on the judiciary's 10-year estimates of judges compares with the actual number of judges, and (4) whether the level of courtroom sharing supported by the judiciary's data could have changed the amount of space needed in these courthouses. GAO analyzed courthouse planning and use data, visited courthouses, modeled courtroom sharing scenarios, and interviewed judges, GSA officials, and other experts. The findings in this testimony are preliminary because the federal judiciary and GSA are still in the process of commenting on GAO's draft report and did not provide comments on this testimony.

## What GAO Recommends

GAO developed draft recommendations related to GSA's oversight of construction projects and the judiciary's planning and sharing of courtrooms that GAO plans to finalize in its forthcoming report after fully considering agency comments.

View [GAO-10-753T](#) or [key components](#). For more information, contact Mark L. Goldstein at (202) 512-2834 or [goldsteinm@gao.gov](mailto:goldsteinm@gao.gov).

# FEDERAL COURTHOUSE CONSTRUCTION

## Preliminary Results Show Better Planning, Oversight, and Courtroom Sharing Could Help Control Future Costs

### What GAO Found

The 33 federal courthouses completed since 2000 include 3.56 million square feet of extra space—28 percent of the total 12.76 million square feet constructed. The extra square footage consists of space that was constructed (1) above the congressionally authorized size, (2) due to overestimating the number of judges the courthouses would have, and (3) without planning for courtroom sharing among judges. Overall, this space represents about 9 average-sized courthouses. The estimated cost to construct this extra space, when adjusted to 2010 dollars, is \$835 million, and the annual cost to rent, operate and maintain it is \$51 million.

Twenty seven of the 33 courthouses completed since 2000 exceed their congressionally authorized size by a total of 1.7 million square feet. Fifteen exceed their congressionally authorized size by more than 10 percent, and 12 of these 15 also had total project costs that exceeded the estimates provided to congressional committees—8 by less than 10 percent and 4 by 10 to 21 percent. There is no requirement to notify congressional committees about size overages, as is required for cost overages of more than 10 percent. A lack of oversight by GSA, including a lack of focus on not exceeding the congressionally authorized size, contributed to these size overages.

The judiciary overestimated the number of judges that would be located in 23 of 28 courthouses whose space planning occurred at least 10 years ago, causing them to be larger and costlier than necessary. Overall, the judiciary has 119, or approximately 26 percent, fewer judges than the 461 it estimated it would have. This leaves the 23 courthouses with extra courtrooms and chamber suites that, together, total approximately 887,000 square feet. A variety of factors contributed to the judiciary's overestimates, including inaccurate caseload projections and long-standing difficulties in obtaining new authorizations. However, the degree to which inaccurate caseload projections contributed to inaccurate judge estimates cannot be measured because the judiciary did not retain the historic caseload projections used in planning the courthouses.

Using the judiciary's data, GAO designed a model for courtroom sharing, which shows that there is enough unscheduled time for substantial courtroom sharing. Sharing could have reduced the number of courtrooms needed in courthouses built since 2000 by 126 courtrooms—about 40 percent of the total number—covering about 946,000 square feet. Some judges GAO consulted raised potential challenges to courtroom sharing, such as uncertainty about courtroom availability, but others indicated they overcame those challenges when necessary, and no trials were postponed. The judiciary has adopted policies for future sharing for senior and magistrate judges, but GAO's analysis shows that additional sharing opportunities are available. For example, GAO's courtroom sharing model shows that there is sufficient unscheduled time for 3 district judges to share 2 courtrooms and 3 senior judges to share 1 courtroom.

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Madam Chairwoman, Ranking Member, and Members of the Subcommittee:

Thank you for the opportunity to testify before you today on the preliminary findings from our work related to the federal courthouse construction program. Since the early 1990s, the General Services Administration (GSA) and the federal judiciary (judiciary) have undertaken a multibillion-dollar courthouse construction initiative that has resulted in 66 new courthouses or annexes,<sup>1</sup> with 29 additional projects in various stages of development. However, rising costs and other federal budget priorities threaten to stall the initiative. Over the last 15 years, we have raised concerns about GSA's and the judiciary's process for planning new courthouses, including concerns over limited controls and oversight over courthouse construction costs.<sup>2</sup> We have also raised questions about the accuracy of the judiciary's long-term caseload projections—projections used to estimate the number of judges that will be located in new courthouses in 10 years, often under a policy that provided one courtroom for each estimated judge. Furthermore, we and some members of Congress have raised concerns that some courtrooms are underutilized; that more courtrooms than needed have been, and continue to be, constructed; and that increased courtroom sharing by judges—an option that the judiciary studied for district courtrooms in 2008<sup>3</sup>—could reduce the number of new courtrooms needed and therefore the size and cost of new courthouse projects. As a result of this study, the judiciary recently established some new policies that incorporate more sharing of courtrooms for senior judges<sup>4</sup> and magistrate judges.

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<sup>1</sup>An annex is an addition to an existing building.

<sup>2</sup>See, for example, GAO, *Federal Courthouse Construction: More Disciplined Approach Would Reduce Costs and Provide for Better Decision-making*, [GAO/T-GGD-96-19](#) (Washington, D.C.: Nov. 19, 1995) and GAO, *Courthouse Construction: Information on Project Cost and Size Changes Would Help to Enhance Oversight*, [GAO-05-673](#) (Washington, D.C., June, 30, 2005).

<sup>3</sup>An independent and comprehensive study of courtroom use in district courts was conducted by the Federal Judicial Center (FJC) at the request of the Judicial Conference of the United States, which, after the study was completed, issued a report on the study. See Judicial Conference of the United States, *Report on the Usage of Federal District Court Courtrooms*, September 16, 2008. The study served as a basis for the Judicial Conference's adoption of several policy changes related to the sharing of courtrooms by judges, which are described later in this report.

<sup>4</sup>District judges who are eligible to retire may continue to hear cases on a full- or part-time basis as senior judges.

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Today, my testimony will provide, for the 33 federal courthouses completed since 2000, preliminary results of our review of: (1) whether the courthouses contain extra space and any costs related to it, (2) how the actual size of the courthouses compares with the congressionally authorized size, (3) how courthouse space based on the judiciary's 10-year estimates of judges compares with the actual number of judges, and (4) whether the level of courtroom sharing supported by data from the judiciary's 2008 study of district courtroom sharing could have changed the amount of space needed in these courthouses. My statement is based on a draft report that is currently out for agency comment and scheduled to be released in June 2010. To address these objectives, we analyzed planning, construction, and budget documents associated with all 33 federal courthouses or major annexes completed from 2000 through March 2010. (See table 5 in appendix I.) In addition, we selected seven of the federal courthouses in our scope to analyze more closely as case studies.<sup>5</sup>

To estimate the cost of any extra courthouse space, we added together any extra square footage we found through our analysis in objectives (2) through (4). We then calculated the extra cost to construct, and rent or operate and maintain this space based on a methodology we validated with outside construction experts. To determine how the size of courthouses compares with the authorized size, we compared each courthouse's congressionally authorized gross square footage<sup>6</sup> with the gross square footage of the courthouse as measured by GSA's space measurement program. To learn how the judiciary's 10-year judge estimates compared with the actual number of authorized judges, we compared the number of judges the judiciary estimated it would have in

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<sup>5</sup>The seven case study courthouses include the Bryant U.S. Courthouse Annex in Washington, D.C.; the Coyle U.S. Courthouse in Fresno, California; the D'Amato U.S. Courthouse in Central Islip, New York; the DeConcini U.S. Courthouse in Tucson, Arizona; the Eagleton U.S. Courthouse in St. Louis, Missouri; the Ferguson U.S. Courthouse in Miami, Florida; and the Limbaugh, Sr. U.S. Courthouse in Cape Girardeau, Missouri.

<sup>6</sup>Before Congress makes an appropriation for a proposed project, GSA submits to the House Committee on Transportation and Infrastructure and the Senate Committee on Environment and Public Works detailed project descriptions, called prospectuses, for authorization by these committees when the proposed construction, alteration, or acquisition of a building to be used as a public building exceeds a specified threshold. For purposes of this testimony, we refer to these committees as "authorizing committees" when discussing the submission of the prospectuses and providing additional information relating to prospectuses to these committees. Furthermore, for purposes of this report, we refer to approval of these projects by these committees as "congressional authorization." See 40 U.S.C. § 3307.

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each courthouse in 10 years to judiciary data showing the number of judges or authorized vacancies located there. To learn more about the level of courtroom sharing that the judiciary's data support, we used the judiciary's 2008 district courtroom scheduling and use data to model courtroom sharing scenarios and convened a panel of judicial experts and judges about the challenges and opportunities related to courtroom sharing. We conducted this performance audit from September 2008 to May 2010 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. A detailed discussion of our scope and methodology appears in appendix I. Our findings are preliminary because the federal judiciary and GSA are still in the process of commenting on GAO's draft report and did not provide comments on this testimony.

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## Background

Federal courthouses vary in size and scope. While typically, one to five district court judges are located in small- to medium-sized courthouses, in several large metropolitan areas, 15 or more district judges are located in a single courthouse. Courthouses may also include space for appellate, bankruptcy, and magistrate judges, as well as other tenants. There are 94 federal judicial districts—at least 1 for each state—organized into 12 regional circuits.<sup>7</sup>

The Administrative Office of the U.S. Courts is an agency within the judicial branch and serves as the central support entity for federal courts under the supervision of the Judicial Conference. The Judicial Conference of the United States, which serves as the judiciary's principal policy-making body, periodically assesses the need for additional judgeships for the nation's appellate, district, and bankruptcy courts and recommends additional judgeships to Congress, specifying the circuit or district for which the additional judgeship is requested.

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<sup>7</sup>Each district has a court of appeals whose jurisdiction includes appeals from the district courts located within the circuit, as well as appeals from decisions of federal administrative agencies.

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GSA and the judiciary plan new federal courthouses based on the judiciary's estimated 10-year space requirements, which are based on projections of each location's weighted filings.<sup>8</sup> It then uses this information to determine how many judges to plan for. Except for appeals court judges, who sit on panels of three or more, the judiciary requested one courtroom per estimated judge for courthouses built from 2000 through 2009, although it occasionally planned for senior judges to share courtrooms. The U.S. Courts Design Guide (Design Guide) specifies the judiciary's space and design standards for court-related elements of courthouse construction. In 1993, the judiciary also developed a space planning program called AnyCourt to determine the amount of court-related space the court will request for a new courthouse based on Design Guide standards and estimated staffing levels.

For courthouses that are selected for construction, GSA typically submits two detailed project descriptions, or prospectuses, for congressional authorization: one for site and design and the other for construction. These prospectuses outline the scope, size, and estimated costs of the project at each of the two project phases, and typically request authorization and funding to purchase the site and design the building in the site and design prospectus—and to construct the courthouse in the construction prospectus. Typically, the total gross square footage of the courthouses depicted in the construction prospectus or fact sheet is based on factors that include the judiciary's projected need for space, developed from 10-year judge estimates, and the gross square footage reserved for building common and other space, such as public lobbies and hallways, atriums, elevators, and mechanical rooms. The amount of gross square footage estimated for this space is based on GSA's specification that a courthouse should be 67 percent efficient, meaning that 67 percent of the total gross square footage, excluding parking, should consist of tenant

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<sup>8</sup>Weighted filings statistics account for the different amounts of time district judges take to resolve various types of civil and criminal actions. Types of civil cases or criminal defendants that typically take an average amount of time to resolve each receive a weight of approximately 1.0; for more time-consuming cases, higher weights are assigned (e.g., a death-penalty habeas corpus case is assigned a weight of 12.89); and cases demanding relatively little time from judges receive lower weights (e.g., overpayment and recovery cases, such as a defaulted student loan case, are assigned a weight of 0.10).

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space (space assigned to the courts and other tenants<sup>9</sup>) and the rest should be building common and other space.<sup>10</sup>

Congressional committees authorize and Congress appropriates funds for courthouse projects, often at both the design and construction phases. Congressional authorizations of courthouse projects typically include the gross square footage of the planned courthouse as described in the prospectus and the funding requested. After funds have been appropriated, GSA selects private-sector firms for the design and construction work through a competitive procurement process. GSA also manages the construction contract and oversees the work of the construction contractor.

After courthouses are occupied, GSA charges each tenant agency, including the judiciary, rent for the space it occupies and for its respective share of common areas, including mechanical spaces. GSA considers some space in buildings, such as vertical penetrations, including the upper floors of atriums, non-rentable space. In fiscal year 2009, the judiciary's rent payments totaled over \$970 million. The judiciary has sought to reduce the payments through requests for rent exemptions from GSA and Congress and internal policy changes, such as annually capping rent growth and validating rental rates.

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<sup>9</sup>For the purposes of this report, we are referring to space assigned both to a specific tenant and to joint use as tenant space.

<sup>10</sup>In line with GSA's method of calculating efficiency, this category includes the space GSA categorizes as building common, floor common, and unmarketable space.

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## Extra Space in Courthouses Cost an Estimated \$835 Million in Constant 2010 Dollars to Construct and \$51 Million Annually to Rent, Operate, and Maintain

The 33 federal courthouses completed since 2000 include 3.56 million square feet of extra space—28 percent of the total 12.76 million square feet constructed. The extra square footage consists of space that was constructed above the congressionally authorized size, due to overestimating the number of judges the courthouses would have, and without planning for courtroom sharing among judges.<sup>11</sup> Overall, this space represents about 9 average-sized courthouses. The estimated cost to construct this extra space, when adjusted to 2010 dollars, is \$835 million,<sup>12</sup> and the annual cost to rent, operate, and maintain it is \$51 million (see fig. 1). More specifically, the extra space and its causes are as follows:

- 1.7 million square feet caused by construction in excess of congressional authorizations;
- 887,000 extra square feet caused by the judiciary overestimating the number of judges the courthouses would have in 10 years; and
- 946,000 extra square feet caused by district and magistrate judges not sharing courtrooms.

Thirty-two of the 33 courthouses include extra space attributable to at least one of these three causes and 19 have extra space attributable to all three causes.

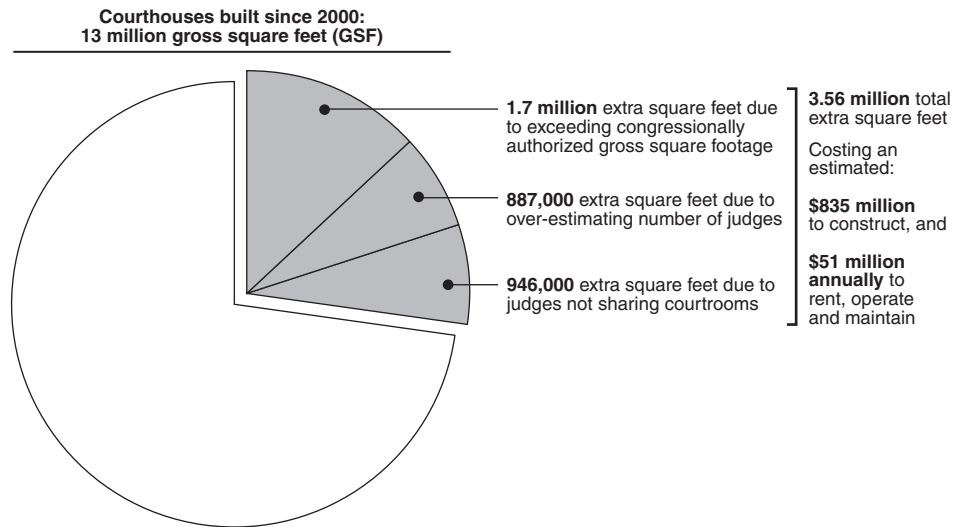
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<sup>11</sup>We did not evaluate how much of the extra space was unused.

<sup>12</sup>The estimated construction cost of the extra space was \$640 million in nominal (unadjusted) dollars. We adjusted for inflation using a price index for construction costs from the Bureau of Economic Analysis and Global Insights. We adjusted expenditures to 2010 constant dollars.



**Figure 1: Extra Federal Courthouse Space Constructed Since 2000 and the Estimated Construction and Annual Costs**



Sources: GAO analysis of GSA data.

Note: Numbers in figure 1 do not add up to the total due to rounding.

In addition to the one-time construction cost increase, the extra square footage in these 32 courthouses causes higher annual operations and maintenance costs, which are largely passed on to the judiciary and other tenants as rent. According to our analysis of the judiciary's rent payments to GSA for these courthouses at fiscal year 2009 rental rates, the extra courtrooms and other judiciary space increase the judiciary's annual rent payments by \$40 million. In addition, our analysis indicates that other extra space cost \$11 million in fiscal year 2009 to operate and maintain.<sup>13</sup> Typically, operations and maintenance costs represent from 60 to 85 percent of the costs of a facility over its lifetime, while design and construction costs represent about 5 to 10 percent of these costs.<sup>14</sup>

<sup>13</sup>We did not attempt to calculate the rent attributable to the extra square footage due to exceeding congressionally authorized gross square footage because some of this extra square footage is for tenants other than the judiciary or occurs in building common or other space, the costs of which are not directly passed on to the judiciary in rent. We therefore calculated the annual operations and maintenance costs for all extra space due to exceeding congressionally authorized gross square footage and for the extra building common and other space due to overestimating the number of judges and judges not sharing courtrooms.

<sup>14</sup>The remaining lifetime costs include land acquisition, planning, renewal/revitalizations, and disposal.

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Therefore, the ongoing operations and maintenance costs for the extra square footage are likely to total considerably more in the long run than the construction costs for this extra square footage.

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## Most Courthouses Exceed Congressionally Authorized Size Due to a Lack of Oversight by GSA

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### Most Courthouses Constructed Since 2000 Exceed Authorized Size, Some by Substantial Amounts

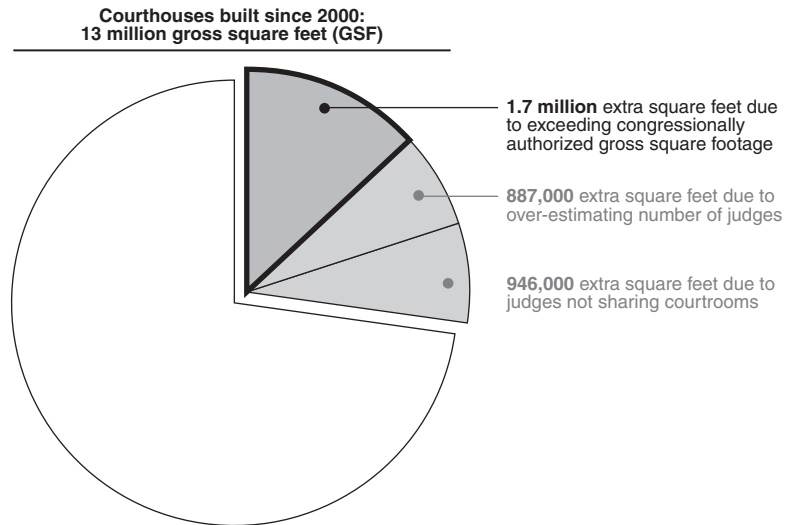
Twenty seven of the 33 federal courthouses constructed since 2000 exceed their congressionally authorized size,<sup>15</sup> and 15 of the 33 courthouses exceed their congressionally authorized size by 10 percent or more. For example, the O'Connor Courthouse in Phoenix was congressionally authorized at 555,810 gross square feet but is 831,604 gross square feet, an increase of 50 percent. As shown in figure 2, altogether, these 27 courthouses have about 1.7 million more square feet than authorized.

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<sup>15</sup>For all 33 courthouses in our scope, we used the congressionally authorized gross square footage for the construction of the courthouse. We compared the authorized gross square footage, including inside parking, with the actual gross square footage, including inside parking.

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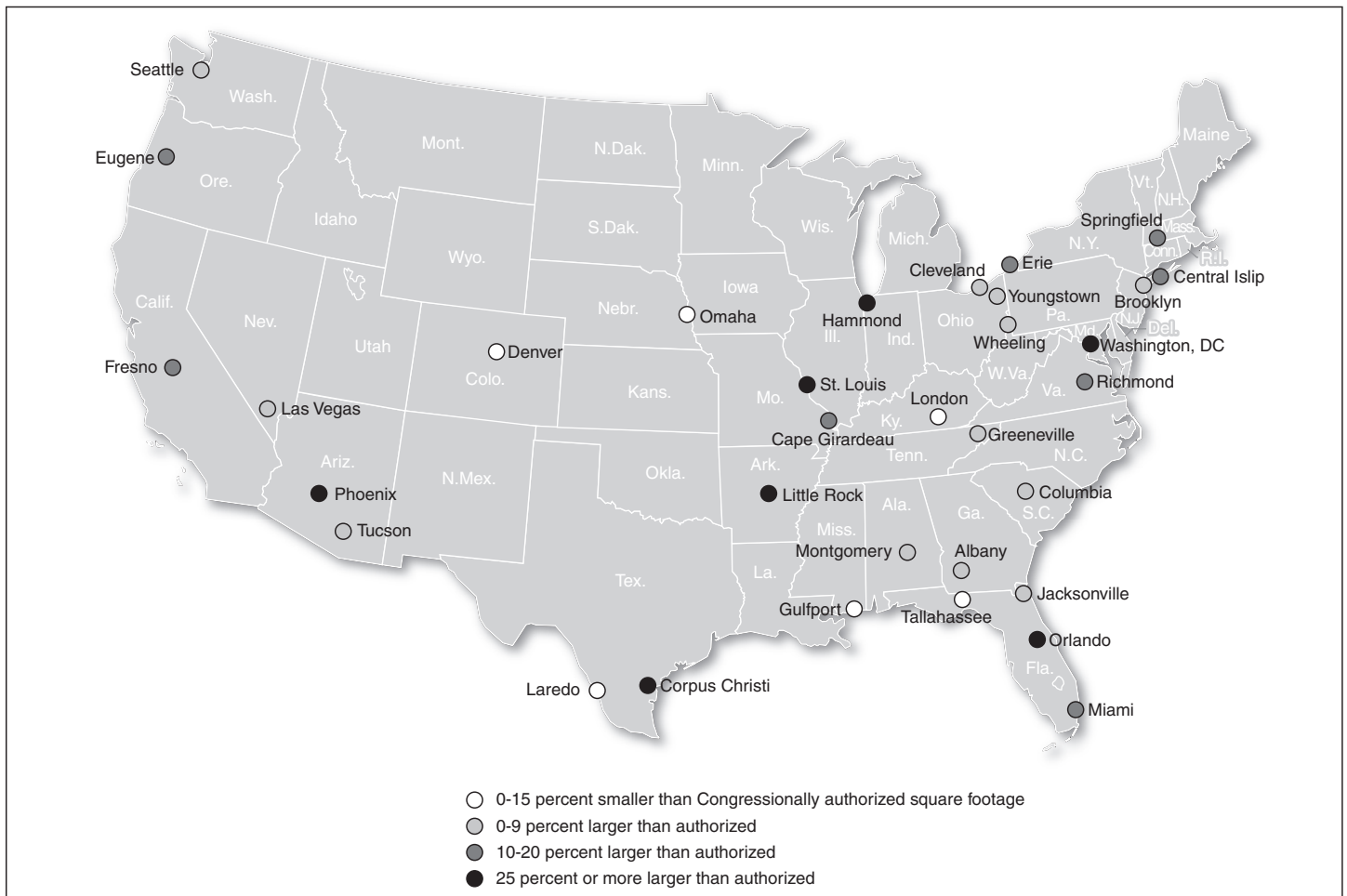
**Figure 2: Extra Federal Courthouse Space Constructed Since 2000 Due to Exceeding Congressionally Authorized Square Footage**



Sources: GAO analysis of GSA data.

On the other hand, as shown in figure 3, 6 of the 33 courthouses are smaller than congressionally authorized.

**Figure 3: Percentage Difference in Size of Federal Courthouses as Congressionally Authorized and as Built**



Source: GAO presentation of GSA data; Map Resources (map).

Twelve of the 15 courthouses that exceeded the congressionally authorized gross square footage by 10 percent or more also had total project costs that exceeded the total project cost estimate provided to congressional authorizing committees.<sup>16</sup> The total project costs for 8 of these 12 courthouses increased by between 1 and 9 percent over the cost estimate

<sup>16</sup>Three of these 15 courthouses had total project costs that were at or slightly under the total project cost estimate provided to congressional authorizing committees at the construction phase.

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provided to congressional authorizing committees at the construction phase, while the total project costs for four of these courthouses increased by between 10 and 21 percent over the cost estimate provided to congressional authorizing committees at the construction phase. While there is a statutory requirement that GSA obtain advance approval from the Committees on Appropriations if the expenditures for a project exceed the amount included in an approved prospectus by more than 10 percent,<sup>17</sup> there is no statutory requirement for GSA to notify congressional authorizing or appropriations committees if the size exceeds the congressionally authorized square footage. While GSA sought approval from the appropriations committees for the cost increases incurred for the 4 courthouses whose size and costs increased by about 10 percent or more, GSA did not explain to these committees that the courthouses were larger than authorized and therefore did not attribute any of the cost increase to this difference. For example, the total project cost of the Coyle U.S. Courthouse in Fresno, California, (about \$133 million) was about \$13 million over the estimate provided to congressional authorizing committees before construction (an increase of 11 percent), while the courthouse is about 16 percent larger than its authorized gross square footage. In requesting approval from the appropriations committees for additional funds for the Coyle U.S. Courthouse, GSA stated that, among other things, additional funds were needed for fireproofing and electrical and sewer line revisions—but did not mention that the courthouse was 16 percent larger than authorized. Because the construction costs of a building increase when its gross square footage increases, the cost overruns for this courthouse would have been smaller or might have been eliminated if GSA had built the courthouse to meet the authorized square footage.

All seven courthouses we examined as case studies had increases in size made up, at least in part, of increases in building common and other space.<sup>18</sup> Five of the seven courthouses also had increases in tenant space.

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<sup>17</sup>See GSA's 2010 Fiscal Year Appropriations Act, Pub. L. No. 111-117, Div. C. Title V, 123 Stat. 3034, 3187-3188 (2009). Every year from fiscal year 1995 through fiscal year 2010, the GSA appropriations act has contained this requirement except for fiscal year 1998, when no appropriation was made for new construction or acquisition. For fiscal years 1990 through 1994, the GSA appropriations acts stated that these projects could not exceed their authorized cost by more than 10 percent.

<sup>18</sup>For the purposes of this report, we are using the term *building common and other space* to include GSA's categories of building common, floor common, and unmarketable space and the term *tenant space* to include GSA's categories of tenant space, joint use space, and vacant space.

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In all seven of the case study courthouses, the increases in building common and other space were proportionally larger than the increases in tenant space, leading to a lower efficiency than GSA's target of 67 percent.<sup>19</sup> According to GSA officials, a building's efficiency is important because, as it declines, less of the building's space directly contributes to the tenants' mission-related activities.<sup>20</sup> In addition, for a given amount of tenant space, meeting the efficiency target helps control a courthouse's gross square footage and therefore its costs.<sup>21</sup> See table 1.

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<sup>19</sup>In a building with 67 percent efficiency, 67 percent of the total gross square footage, excluding parking, consists of tenant space and the remainder consists of building common and other space.

<sup>20</sup>GSA defines the gross square footage of a building as the total constructed area of a building, which includes tenant spaces and building common and other spaces, such as lobbies and mechanical rooms—as well as indoor parking.

<sup>21</sup>According to GSA, the 67 percent efficiency target is intended for application to stand-alone new courthouses, and application to an annex is impractical because of the need for connections between the courthouse and the annex. However, we consider the efficiency of the Bryant Annex to be relevant because in the plans for this annex provided to congressional committees for authorization, GSA based its request for total gross square footage on an annex that would be 67 percent efficient.

**Table 1: Square Footage Over Authorized and Efficiency of Seven Courthouses**

	Bryant U.S. Courthouse Annex, Washington, D.C.	Coyle U.S. Courthouse, Fresno, Calif.	D'Amato U.S. Courthouse, Central Islip, N.Y.	DeConcini U.S. Courthouse, Tucson, Ariz.	Eagleton U.S. Courthouse, St. Louis, Mo.	Ferguson, Jr., U.S. Courthouse, Miami, Fla.	Limbaugh, Sr., U.S. Courthouse, Cape Girardeau, Mo.
Gross square footage over authorized	82,374	67,536	156,031	20,075	273,244	97,477	18,982
Actual gross square footage, including parking	409,974	495,912	1,014,031	439,817	1,310,876	605,800	173,392
Authorized gross square footage for construction, including parking	327,600	428,376	858,000	419,742	1,037,632	508,323	154,410
Actual tenant space square footage <sup>a</sup>	188,955 (38,722 over planned) <sup>b</sup>	278,654 (21,658 over planned)	416,827 (33,173 under planned)	255,225 (2,285 over planned)	671,050 (73,696 over planned)	366,924 (46,924 over planned)	96,025 (998 under planned)
Actual building common and other space square footage <sup>a</sup>	149,628 (75,633 over planned) <sup>b</sup>	173,157 (46,577 over planned)	468,411 (185,411 over planned)	148,015 (23,433 over planned)	518,006 (224,865 over planned)	188,766 (44,443 over planned)	68,008 (20,221 over planned)
Actual Efficiency	56 %	62 %	47 %	63 %	56 %	66 %	59 %

Source: GAO.

<sup>a</sup>The square footage for tenant space and building common and other space does not include indoor parking and thus does not add up to the actual gross square footage, which includes indoor parking.

<sup>b</sup>While the square footage to be used for tenant space and building common and other space is not specifically congressionally authorized, GSA provides congressional committees with plans it has developed with the judiciary that show how much of the gross square footage not including parking (which is congressionally authorized) is to be used for tenant space, with the rest of the square footage planned for building common and other space.

### GSA Lacked Sufficient Oversight and Controls to Ensure That Courthouses Were Planned and Built According to Authorized Size

GSA lacked sufficient control activities to ensure that the 33 courthouses were constructed within the congressionally authorized gross square footage, initially because it had not established a consistent policy for how to measure gross square footage. GSA established a policy for measuring gross square footage by 2000, but has not ensured that this space measurement policy was understood and followed. Moreover, GSA has not demonstrated it is enforcing this policy because all 6 courthouses completed since 2007 exceed their congressionally authorized size. According to GSA officials, the agency did not focus on ensuring that the authorized gross square footage was met in the design and construction of

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**Lack of GSA Oversight  
Contributed to More Building  
Common Space Than Planned**

the courthouse until 2007, even though, according to GSA officials, controlling the gross square footage of a building is important to controlling its construction costs.

All seven of the courthouses we examined in our case studies had increases in building common and other space—such as mechanical spaces and atriums—as compared with the square footage planned for these spaces within the congressionally authorized gross square footage. The percent increases over the planned space ranged from 19 percent to 102 percent. According to a GSA official, at times, courthouses were designed to meet various design goals without an attempt to limit the size of the building common or other space to the square footage allotted in the plans provided to congressional authorizing committees—and these spaces may have become larger to serve a design goal as a result. For example, the building common and other space in the Eagleton U.S. Courthouse in St. Louis is 77 percent larger than planned, and the courthouse has an efficiency of 56 percent. While we could not determine the cause of all of this additional space, all courtroom floors of the St. Louis courthouse have mechanical rooms near the courtrooms, and in total, the mechanical space in the St. Louis courthouse takes up proportionally more space than it does in the DeConcini U.S. Courthouse in Tucson, Arizona. In addition, the Eagleton U.S. Courthouse in St. Louis has two empty elevator shafts—rising all 33 floors—that were built but are not used. Together, the mechanical space and the elevator shafts bring the efficiency of the Eagleton U.S. Courthouse well below GSA’s target of 67 percent and limit the proportion of the building’s total space that contributes to mission-related activities. Moreover, regional GSA officials stated that they were unaware until we told them that the courthouse was larger and less efficient than authorized.

Another element of GSA’s lack of oversight in this area was that GSA did not ensure that the architect followed GSA’s policies for how to measure certain commonly included spaces, such as atriums. According to GSA officials, a primary reason why the Limbaugh, Sr., U.S. Courthouse in Cape Girardeau, Missouri, and the Bryant U.S. Courthouse Annex in Washington, D.C., exceeded their congressionally authorized square footage is that the architect did not consider the upper atrium levels as part of the gross square footage of the courthouse—in conflict with GSA’s standards for measuring atrium space. In GSA’s policy for determining a building’s gross square footage, the atrium space is counted on all floors because multifloor atriums increase a building’s volume and gross square footage and thus its costs. However, according to GSA officials, GSA’s practice in the early 2000s—when the Limbaugh, Sr., and Bryant



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A Lack of GSA Oversight  
Contributed to Some  
Courthouses Being Built with  
Larger Tenant Spaces

Courthouses were under design—was to rely on the architect to measure and validate the plans for the courthouse, and GSA did not expect its regional or headquarters officials to monitor or check whether the architect was following GSA’s policies. Although GSA officials emphasized that open space for atriums would not cost as much as space completely built out with floors, these officials also agreed that there are costs associated with constructing and operating atrium space. In fact, the 2007 edition of the Design Guide, which reflects an effort to impose tighter constraints on future space and facilities costs, emphasizes that courthouses should have no more than one atrium.

GSA’s lack of focus on meeting authorized square footage also contributed to increases in the size of tenant spaces in five of our seven case study courthouses. For example, the Ferguson, Jr., U.S. Courthouse in Miami has about 46,924 more square feet of tenant space than planned. The district court has about 20,768 more square feet of space in this courthouse than planned. Among other things, the 14 regular district courtrooms built in this courthouse are each about 2,800 square feet—17 percent larger than the Design Guide standard of 2,400 square feet—while the two special proceedings courtrooms on the 13th floor are each about 3,200 square feet, about 7 percent larger than the Design Guide standard of 3,000 square feet. GSA officials stated that courtroom space is among the most expensive of courthouse spaces to construct and the Design Guide’s criteria are in part meant to help ensure that courthouses are built to be cost-effective as well as functional.

In addition, some courthouses encompass more courtroom space than planned because during the planning stages, neither the judiciary nor GSA took into account the possibility that the design of the courthouse could double the square footage attributable to each courtroom.<sup>22</sup> Courthouses have been designed in various ways to address the height requirement for courtroom ceilings. For example, in a collegial floor plan, courtroom floors alternate with floors for judicial chambers and other spaces that do not need higher ceilings, so that each floor can be built to a height that is suitable for the rooms it contains. However, because federal courthouses have typically been built with judges’ chambers on the same floors as the

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<sup>22</sup>Under the Design Guide standards in effect when these courthouses were designed, courtroom ceilings were to be at least 16 feet high, while judges’ chambers and other court-related spaces did not have ceiling height requirements. The ceilings of special proceedings courtrooms and appellate *en banc* courtrooms (in which all the circuit’s judges sit together on a panel and decide a case) were to be 18 feet high.

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courtrooms, some courthouses have courtrooms on floors designed to hold rooms with 10-foot ceilings, and the ceiling of each courtroom is cut out so that each courtroom takes up two floors. For example, the Eagleton U.S. Courthouse in St. Louis and the Bryant U.S. Courthouse Annex in Washington, D.C., were constructed with courtrooms that span two floors. According to GSA's policy, when a courthouse is designed so that a courtroom takes up two floors, the space on the second floor—referred to as a tenant floor cut—is considered part of the gross square footage of the building and—if it would otherwise be usable space—is also considered to be court-occupied space. Therefore, in this type of courthouse, each courtroom is counted as having double the square footage of the courtroom floor. Although the extra square footage in this type of courtroom is multistory space, like the extra square footage in atriums, and therefore, according to GSA, costs less than square footage that is completely built out, nevertheless there are costs associated with this space.

Judiciary officials said that space planning is done well before they know if they will need to incorporate additional space for tenant floor cuts in courtrooms. Under the judiciary's current automated space planning tool, AnyCourt, which the judiciary uses to determine how much court-related space to request for a new courthouse, the Design Guide's standard of 2,400 square feet is provided for each district courtroom planned for a new courthouse. However, because the gross square footage requirements that GSA identifies in the prospectus to congressional committees are based on AnyCourt's output for the amount of space needed by the courts, for courthouses designed with district courtrooms that have tenant floor cuts, the AnyCourt program identifies only half of the square footage attributable to the courtroom when calculating the courthouse's gross square footage following GSA's standards. If GSA requests court space based on the AnyCourt model, it therefore may not be requesting sufficient space for courtrooms to account for courtrooms that are designed with tenant floor cuts.

### Recently, GSA Has Taken Some Steps to Improve Oversight of Courthouse Size

Recently, GSA has taken some steps to improve its oversight of the courthouse construction process. In May 2009, GSA published a revised space assignment policy to clarify and emphasize its policies on counting the square footage of atriums and tenant floor cuts, among other things. In addition, according to GSA officials, GSA established a collaborative effort in 2008 between its Office of Design and Construction and its Real Estate Portfolio Management to, among other things, use data management software to ensure that GSA's space guidelines are followed in the early planning phases of courthouse projects. It is not yet clear whether these

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steps will establish sufficient oversight to ensure that courthouses are planned and constructed within the congressionally authorized square footage.

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## Estimated Space Needs Exceeded Actual Space Needs, Resulting in Courthouses That Were Larger than Necessary

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### Because the Judiciary Overestimated the Number of Judges, Courthouses Have Much Extra Space After 10 Years

Our analysis of construction plans for the 33 courthouses built since 2000 shows that 28 have reached or passed their 10-year planning period<sup>23</sup> and 23 of those 28 courthouses have fewer judges than estimated.<sup>24</sup> Overall, the judiciary has 119, or approximately 26 percent, fewer judges than the 461 it estimated it would have. As a result, these 23 courthouses have extra courtrooms, chamber suites, and related support, building common, and other spaces covering approximately 887,000 square feet (see fig. 4).

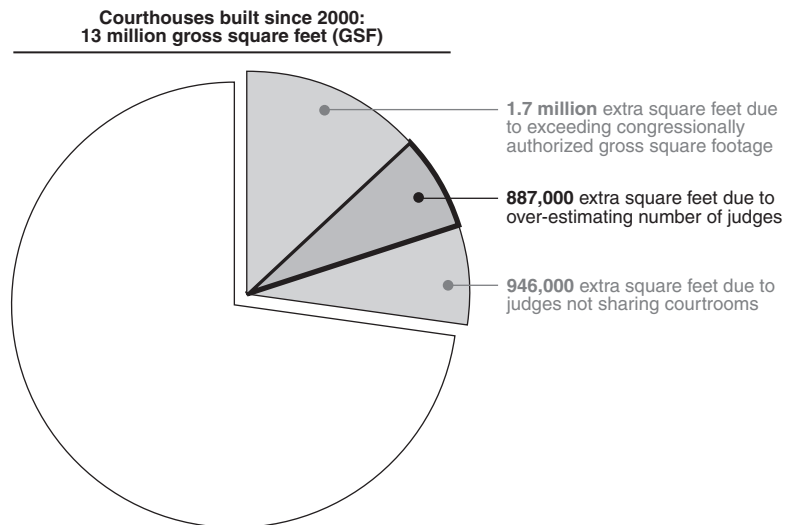
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<sup>23</sup>The judiciary makes the 10-year estimates during the planning stages of new courthouses and major annexes. We did not include 5 courthouses in this section because they have not yet reached the end of their 10-year planning period.

<sup>24</sup>Each of the five courthouses that met or exceeded their 10-year estimates for judges projected increases of zero or one judge for planning periods ending from 2004 to 2006.

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**Figure 4: Extra Federal Courthouse Space Constructed Since 2000 Due to Overestimating the Number of Judges**



Sources: GAO analysis of GSA data.

Six of the seven case study courthouses we reviewed have reached the end of their 10-year planning period and were designed for more judges than they actually have.<sup>25</sup> Table 2 compares the estimated and actual numbers of judges for each of these courthouses and the space consequences of overestimating the number of judges.<sup>26</sup>

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<sup>25</sup>The Limbaugh, Sr., Courthouse in Cape Girardeau, Missouri, is not included as a case study in this analysis because it has not reached the end of its 10-year planning period.

<sup>26</sup>Extra space includes courtroom suites, ranging in size from 3,500 to 5,000 square feet, and chamber suites, ranging in size from 1,500 to 2,400 square feet, as specified in the Design Guide. Courtroom space calculations include square footage for spaces that are necessary for courtroom use, such as soundlocks (an entryway designed to reduce sound), audiovisual storage space, and public waiting areas. Additional spaces associated with courtrooms vary by courtroom type and may include, among other things, coat closets, judges' conference rooms, judges' robing rooms, exhibit storage spaces, and offices for court reporters. In addition to the court space, these spaces require a proportional allocation of additional public and mechanical spaces, and judges are generally provided with secure, inside parking space in new courthouses. These additional spaces are also not needed if estimates exceed authorized judges.

**Table 2: Comparison of 10-Year Judge Estimates and the Actual Number of Judges After 10 Years or More for Case Study Courthouse Locations and Related Space Consequences**

	Bryant U.S. Courthouse, Washington, D.C.	Coyle U.S. Courthouse, Fresno, Calif.	D'Amato U.S. Courthouse, Central Islip, N.Y.	DeConcini U.S. Courthouse, Tucson, Ariz.	Eagleton U.S. Courthouse, St. Louis, Mo.	Ferguson, Jr., U.S. Courthouse, Miami, Fla.
Year estimate was made	2000	2000	1995	1995	1994	2000
Ten-year judge estimate	49	18	25	15	29	33
Current judges including vacancies	39	10	15	12	20	27
Judges short of estimate	10	8	10	3	9	6
Estimated extra square footage built because of incorrect judge estimates	62,000	52,000	89,000	25,000	76,000	57,000

Source: GAO.

Note: Our analysis includes judges who are located in the new courthouse and authorized vacancies not covered by recalled judges.

Figure 5 illustrates two unassigned chamber suites in the Coyle Courthouse in Fresno, California.

**Figure 5: Unassigned Chamber Suites in the Coyle Courthouse in Fresno, California**



Source: GAO.

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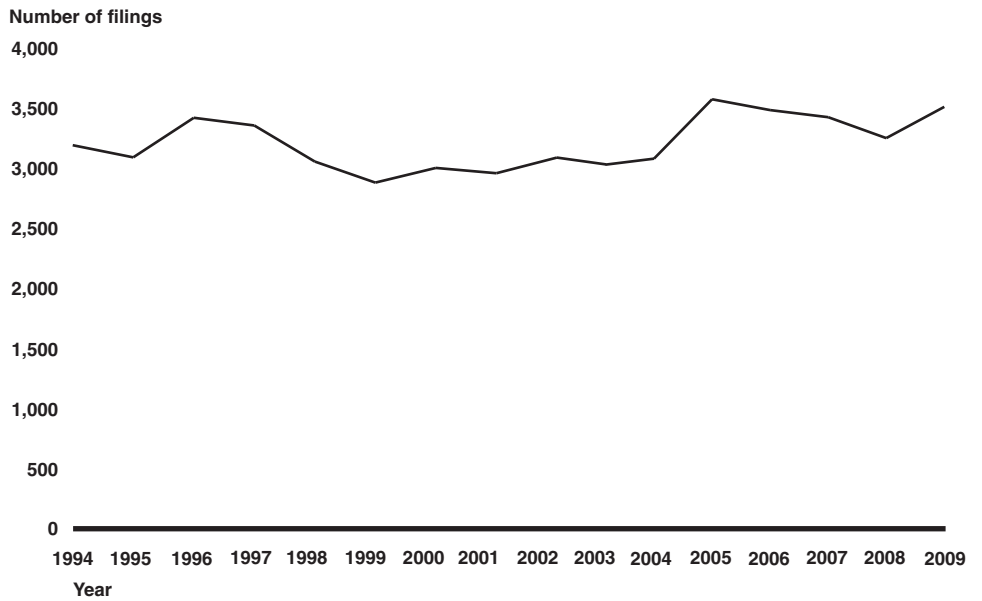
## Judiciary Planning Overstated the Need for Space through Inaccurate Caseload Projections

Inaccurate caseload growth projections led the judiciary to estimate a need for more judges and subsequently overestimate the need for space for some courthouse projects. In a 1993 report, we questioned the reliability of the caseload projection process the judiciary used.<sup>27</sup> For this report, we were not able to determine the degree to which inaccurate caseload projections contributed to inaccurate judge estimates because the judiciary did not retain the historic caseload projections used in planning the courthouses. However, judiciary officials at three of our site visit courthouses indicated that the estimates used in planning for these courthouses inadvertently overstated the growth in district case filings and, hence, the need for additional judges. For example, for the Eagleton Courthouse in St. Louis, judiciary officials said the district estimated that it would need four additional district judges by 2004 to handle a high level of estimated growth in case filings; however, that case filing growth never materialized and the Eagleton Courthouse has the same number of authorized judges that it had in 1994 when the estimates were made. Specifically, the Eastern District of Missouri, in which the Eagleton Courthouse is located, had 3,182 case filings in 1994 and 3,241 case filings in 2008 (see fig. 6).

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<sup>27</sup>GAO, *Federal Judiciary Space: Long-Range Planning Process Needs Revision*, GAO/GGD-93-132 (Washington, D.C.: Sept. 28, 1993).

**Figure 6: Total District Court Case Filings for the Eastern District of Missouri**



Source: Administrative Office of the U.S. Courts.

### The Judiciary’s Method of Estimating Judges Does Not Account for Uncertainty in How Many New Judgeships Will Be Authorized

Limitations of the judiciary’s 10-year judge estimates are also due, in part, to the challenges associated with predicting how many judges will be located in a courthouse in 10 years leading the judiciary to overestimate how many judges it would have in courthouses after 10 years or more. Determining how many requested judgeships will be authorized is also challenging for several reasons. First, Congress has authorized fewer positions than the judiciary has requested over the years. It has been 20 years since Congress passed comprehensive judgeship legislation. Yet the judiciary did not incorporate historic trends into its planning for new courthouses. Instead, it requested new courthouses that could accommodate the number of judges it would have if all of its estimated judgeships were approved, and some of the excess space in new courthouses reflects the judiciary’s receipt of fewer judgeships than it requested. Problems with the reliability of the weighted caseload data—the workload indicator that the judiciary uses to decide when a new judge is needed—can undermine the credibility of the judiciary’s requests for new judgeships. For example, in a 2009 hearing, a member of Congress cited a lack of reliability in weighted caseload to question if all of the

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requested judgeships are necessary. In a 2008 report, we found that weighted caseload is not reliable because its accuracy for district and appeals courts cannot be tested.<sup>28</sup>

A second challenge the judiciary faces in estimating how many judges it will need for specific courthouses is that judgeships are requested and thus authorized at the district or circuit levels as a whole, rather than for a specific courthouse. Hence, it is hard to predict which courthouses the additional judgeships requested in the Federal Judgeship Act of 2009,<sup>29</sup> if enacted, would be assigned to if the positions were authorized. However, the judiciary's estimation process does not take this uncertainty into account. For example, in 2009, the judiciary requested 18 judgeships for districts that contain courthouses built since 2000, but not all of the judges for these requested judgeships, if approved by Congress, would necessarily be placed in those courthouses.

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## Low Levels of Use Show That Judges Could Share Courtrooms, Reducing the Need for Future Courtrooms by More Than a Third

Most courthouses constructed since 2000 have enough courtrooms for all of the district and magistrate judges to have their own courtrooms. Using the judiciary's data,<sup>30</sup> we designed a model for courtroom sharing that shows that judges could share courtrooms at a high enough level to reduce the number of courtrooms needed in 27 of the 33 district courthouses built since 2000 by a total of 126 courtrooms—about 40 percent of the total number of district and magistrate courtrooms constructed since 2000.<sup>31</sup> In total, not building these courtrooms and their associated support, building common, and other spaces would have reduced construction by approximately 946,000 square feet<sup>32</sup> (see fig. 7).

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<sup>28</sup>GAO, *Federal Judgeships: General Accuracy of District and Appellate Judgeship Case-Related Workload Measures*, [GAO-08-928T](#) (Washington, D.C.: June 17, 2008).

<sup>29</sup>H.R. 3662, 111th Cong. (2009) and S. 1653, 111th Cong. (2009).

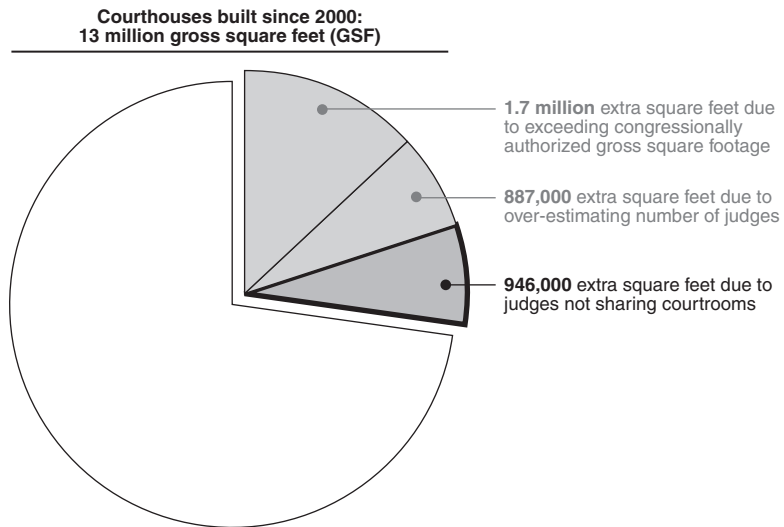
<sup>30</sup>Federal Judicial Center, *The Use of Courtrooms in U.S. District Courts: A Report to the Judicial Conference Committee on Court Administration & Case Management* (Washington, D.C.: July 18, 2008).

<sup>31</sup>Our model does not reduce the number of courtrooms in six courthouses for the following reasons: four already had sharing between judges and the model did not find increased sharing possibilities and therefore imposed no reduction in courtrooms; one has only one district and one magistrate judge; and one courthouse has only bankruptcy judges and is out of our scope for district and magistrate sharing opportunities.

<sup>32</sup>This number also includes the support spaces directly related to a courtroom as applicable, such as jury rooms, evidence closets, and lawyer conference rooms.



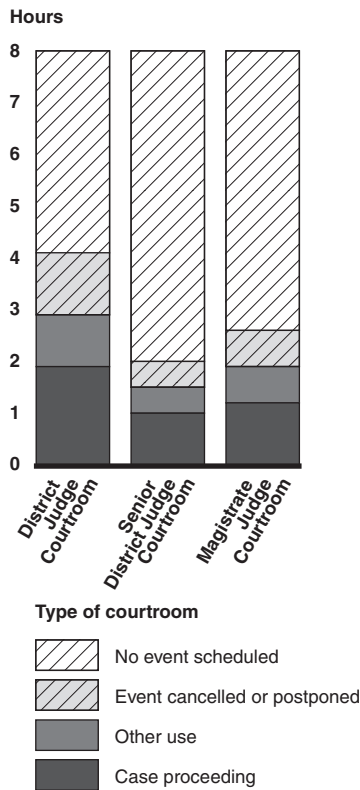
**Figure 7: Extra Federal Courthouse Space Constructed Since 2000 Due to Judges Not Sharing Courtrooms**



Sources: GAO analysis of GSA data.

According to the judiciary's data, courtrooms are used for case-related proceedings only a quarter of the available time or less, on average. Furthermore, no event was scheduled in courtrooms for half the time or more, on average. Figure 8 illustrates the average daily uses of courtrooms assigned to single district, senior district, or magistrate judges.

**Figure 8: Representation of an Average 8-Hour Day for a Courtroom by Type of Judge as of July 2007**



Source: GAO analysis of Judiciary data.

These low levels of courtroom usage are consistent across courthouses regardless of case filings. Specifically, the judiciary’s data showed no correlation between the number of weighted and unweighted cases filed in a courthouse and the amount of time courtrooms are in use. Although the judiciary uses weighed case filings as the measurement criteria for requesting additional judgeships, this representation of higher levels of activity does not translate into higher courtroom usage rates, according to the judiciary’s courtroom use data. According to the data, courthouses located on the nation’s border and those with higher pending caseloads do make greater-than-average use of their courtrooms, but other courthouses in the same districts offset that higher use for district and senior district judges’ courtrooms.

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Based on the low levels of use indicated by the judiciary's data, we found that sharing is feasible in 27 of the 33 district courthouses built since 2000 and could have resulted in the construction of 126 fewer courtrooms—40 percent of all district and magistrate courtrooms in those courthouses.<sup>33</sup> The Design Guide in place when these courthouses were built encouraged judicial circuits to adopt courtroom-sharing policies for senior judges. However, most of the courthouses constructed since 2000 provided enough courtrooms for all district and magistrate judges to have their own courtrooms.

The 2008 study by the judiciary states that the data collected during the study could be used with computer modeling to determine how levels of use might translate into potential sharing opportunities for judges, but that such a determination was outside the scope of the study. As a result, we applied generally accepted modeling techniques to the judiciary's data to develop a computer model for sharing courtrooms. The model ensures sufficient courtroom time for (1) all case-related activities; (2) all time allotted to non-case-related activities, such as preparation time, ceremonies, and educational purposes; and (3) all events cancelled or postponed within a week of the event.

Under our model, the remainder of time remains unscheduled—approximately 18 percent of the time for district courtrooms and 22 percent of the time for magistrate courtrooms on average. In this way, our model includes substantial time when the courtroom is not in use for case proceedings. Some non-case related events could be held outside of normal business hours, and 60 percent of events are cancelled or postponed within 1 week of the event's original date, according to the judiciary's data. Not allocating time in the model for these purposes would create even more opportunity for sharing; however, we chose to include these data, keep the model conservative, and allow for unpredictability.

The judiciary's report also included a section of case studies based on in-depth interviews with judges at courthouses where judges share courtrooms. These interviews suggested that courtrooms can be shared in two ways: (1) dedicated sharing, in which judges are assigned to share specific courtrooms, and (2) centralized sharing, in which all courtrooms are available for assignment to any judge based on need. Our model shows

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<sup>33</sup>Sharing was not possible in some courthouses because there were only one or two district and/or magistrate judges.

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the following possibilities for dedicated courtroom sharing, with additional unscheduled time to spare. See table 3.

**Table 3: Dedicated Courtroom-Sharing Possibilities Based on GAO Model**

<b>Judges</b>	<b>Dedicated courtrooms needed</b>
3 district judges	2 district courtrooms
3 senior district judges	1 district courtroom
1 district and 1 senior judge	1 district courtroom
2 magistrate judges	1 magistrate courtroom

Source: GAO.

Our model shows that centralized sharing further improves efficiency by increasing the number of courtrooms each judge can access, whereas in dedicated sharing judges only use the shared courtroom assigned to them. We used the model to estimate how the courtrooms in one courthouse could be shared both ways. Specifically, to illustrate the increased efficiency of centralized sharing over dedicated sharing, we applied the two types of sharing to the current district and magistrate judges in the Ferguson Courthouse in Miami, Florida. Currently, the Ferguson Courthouse has 26 courtrooms for 26 judges, including 12 district judges, 3 senior district judges and 11 magistrate judges (two of whom are recalled). Under a dedicated sharing model, the Ferguson Courthouse could accommodate these judges in 15 courtrooms. Under a centralized sharing model, in which all district judges have access to all district judge courtrooms and all magistrate judges have access to all magistrate courtrooms, the number of needed courtrooms is reduced to 14. Table 4 shows the levels of sharing possible and the amount of space that could be eliminated for all of our seven case study courthouses through centralized sharing.

**Table 4: District, Senior, and Magistrate Judge Courtroom Sharing That Could Occur in Selected Courthouses Based on the Judiciary’s Data**

<b>Courthouses</b>	<b>Current number of courtrooms by type with one courtroom per judge</b>	<b>Number of courtrooms needed under centralized sharing</b>	<b>Number of extra courtrooms under centralized sharing</b>	<b>Square footage of extra courtroom and associated support and public spaces</b>
Bryant Courthouse Annex, Washington, D.C.	District: 20 Magistrate: 3	District: 11 Magistrate: 2	10	74,000
Coyle Courthouse, Fresno, Calif.	District: 3 Magistrate: 4a	District: 2 Magistrate: 2	3	20,000
D’Amato Courthouse, Islip, N.Y.	Active District: 7 Magistrate: 4	District: 4 Magistrate: 2	5	35,000
DeConcini Courthouse, Tucson, Ariz.	Active District: 5 Magistrate: 7	District: 4 Magistrate: 3	5	33,000
Eagleton Courthouse, St. Louis, Mo.	Active District: 9 Magistrate: 6	District: 5 Magistrate: 3	7	49,000
Ferguson Courthouse, Miami, Fla.	Active District: 15 Magistrate: 11	District: 9 Magistrate: 5	12	83,000
Limbaugh, Sr., Courthouse, Cape Girardeau, Mo.	Active District: 2 Magistrate: 1	District: 1 Magistrate: 1	1	7,500

Source: GAO analysis of the judiciary’s data.

<sup>a</sup>There are 5 magistrate judges in the Coyle Courthouse, including 1 vacancy, but only 4 courtrooms. The model was run for 5 magistrate judges, and the result was that there would need to be 2 magistrate courtrooms—eliminating the need for 2 magistrate courtrooms.

## Some Judges Said They Could Overcome the Challenges to Courtroom Sharing

We solicited expert views on the challenges related to courtroom sharing through interviews with judges and court administrators on site visits to courts with sharing experience and assistance from the National Academy of Sciences in assembling a panel of judicial experts.<sup>34</sup> While some judges remained skeptical that courtroom sharing among district judges could work on a permanent basis, judges with experience in sharing courtrooms said that they overcame the challenges when necessary and trials were never postponed because of sharing.

The primary concern judges cited was the possibility that a courtroom might not be available. They stated that the certainty of having a courtroom available encourages involved parties to resolve cases more

<sup>34</sup>The panel consisted primarily of judges and included other judicial experts with experience in or knowledge of courtroom sharing. Judges who were chosen for the panel but were unable to take part in the live discussion were contacted separately, and semistructured interviews were conducted with them via telephone or in person.

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quickly. They further noted that courtroom sharing could be a disservice to the public if it meant that an event had to be rescheduled for lack of a courtroom; in that case, defendants, attorneys, families and witnesses would also have to reschedule, costing the public time and money. To address the concern that a courtroom would not be available when needed, we programmed our model to provide more courtroom time than necessary to conduct court business. Most judges with experience sharing courtrooms agreed that court staff must work harder than in nonsharing arrangements to coordinate with judges and all involved parties to ensure that everyone is in the correct courtroom at the correct time, but that such coordination is possible as long as people remain flexible and the lines of communication remain open.

Another concern about sharing courtrooms was how the court would manage when judges have long trials. Judges noted that long trials present logistical challenges requiring substantial coordination and continuity, which could be difficult when sharing courtrooms. However, when the number of total trials is averaged across the total number of judges, each judge has approximately 15 trials per year, with the median trial lasting 1 or 2 days. Hence, it is highly unlikely that all judges in a courthouse will simultaneously have long trials. Also, a centralized sharing arrangement would allow for those who need a courtroom for multiple days to reserve one.

To address panelists' concern about sharing courtrooms between district and magistrate judges, which stems in part from differences in responsibilities that can affect courtroom design and could make formal courtroom sharing inappropriate, our model separated district and magistrate judges for sharing purposes, reducing the potential for sharing that could occur through cross scheduling in courthouses with both district and magistrate judges.

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## The Judiciary Has Taken Some Steps to Increase Sharing in Future Courthouse Projects

In 2008 and 2009, the Judicial Conference adopted sharing policies for future courthouses under which senior district and magistrate judges will share courtrooms at a rate of two judges per courtroom plus one additional duty courtroom for courthouses with more than two magistrate judges. Additionally, the conference recognized the greater efficiencies available in courthouses with many courtrooms and recommended that in courthouses with more than ten district judges, district judges also share. Our model's application of the judiciary's data shows that more sharing opportunities are available. Specifically, sharing between district judges could be increased by one-third in all but the largest courthouses by

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having three district judges share two courtrooms in all-sized courthouses. Sharing between senior district judges could also be increased by having three senior judges—instead of two—share one courtroom. If implemented, these opportunities could further reduce the need for courtrooms, thereby decreasing the size of future courthouses.

To date, the Judicial Conference has made no recommendations for bankruptcy judges to share courtrooms. However, the judiciary is conducting a study for bankruptcy courtrooms similar to the 2008 district court study and expects to complete it in 2010.

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## Concluding Observations

While it is too late to reduce the extra space in the 33 courthouses constructed since 2000, for at least some of the 29 additional courthouse projects underway and for all future courthouse construction projects not yet begun, GSA and the judiciary have an opportunity to align their courthouse planning and construction with the judiciary's real need for space. Such changes would greatly reduce construction, operations and maintenance, and rent costs. We have draft recommendations related to GSA's oversight of courthouse construction projects and the judiciary's planning and sharing of courtrooms that we plan to finalize in our forthcoming report after fully considering agency comments.

Madam Chairwoman and members of the Subcommittee, this concludes my prepared statement. I would be pleased to respond to any questions that you or the other Members of the subcommittee may have.

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If you or your staff have any questions concerning this report, please contact me on (202) 512-2834 or [goldsteinm@gao.gov](mailto:goldsteinm@gao.gov). Contact points for our offices of Congressional Relations and Public Affairs may be found on the last page of this testimony.

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## Contact and Acknowledgments

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# Appendix I: Objectives, Scope, and Methodology

For the 33 federal courthouses completed since 2000, we examined (1) whether the courthouses contain extra space and any costs related to it, (2) how the actual size of the courthouses compares with the congressionally authorized size, (3) how courthouse space based on the judiciary’s 10-year estimates of judges compares with the actual number of judges; and (4) whether the level of courtroom sharing supported by data from the judiciary’s 2008 study of district courtroom sharing could have changed the amount of space needed in these courthouses. The 33 courthouses in our scope included the courthouses in table 5.

**Table 5: The 33 Courthouses Completed from 2000 through March 2010**

Year completed	Courthouse
2000	<ol style="list-style-type: none"> <li>1. George U.S. Courthouse, Las Vegas, Nevada</li> <li>2. Eagleton U.S. Courthouse, St. Louis, Missouri</li> <li>3. D’Amato U.S. Courthouse, Central Islip, New York</li> <li>4. DeConcini U.S. Courthouse, Tucson, Arizona</li> <li>5. Hruska U.S. Courthouse, Omaha, Nebraska</li> <li>6. U.S. Courthouse Annex, Tallahassee, Florida</li> <li>7. O’Connor U.S. Courthouse, Phoenix, Arizona</li> </ol>
2001	<ol style="list-style-type: none"> <li>8. U.S. Courthouse, Corpus Christi, Texas</li> <li>9. Johnson U.S. Courthouse Annex, Montgomery, Alabama</li> <li>10. Quillen U.S. Courthouse, Greeneville, Tennessee</li> </ol>
2002	<ol style="list-style-type: none"> <li>11. U.S. Courthouse Annex, London, Kentucky</li> <li>12. U.S. Courthouse, Hammond, Indiana</li> <li>13. King U.S. Courthouse, Albany, Georgia</li> <li>14. Stokes U.S. Courthouse, Cleveland, Ohio</li> <li>15. Jones Federal Building &amp; U.S. Courthouse, Youngstown, Ohio</li> <li>16. Simpson U.S. Courthouse, Jacksonville, Florida</li> </ol>
2003	<ol style="list-style-type: none"> <li>17. Arraj U.S. Courthouse, Denver, Colorado</li> <li>18. Perry, Jr., U.S. Courthouse, Columbia, South Carolina</li> </ol>
2004	<ol style="list-style-type: none"> <li>19. Russell, Jr., U.S. Courthouse, Gulfport, Mississippi</li> <li>20. Federal Building &amp; U.S. Courthouse, Wheeling, West Virginia</li> <li>21. U.S. Courthouse Annex, Erie, Pennsylvania</li> <li>22. U.S. Courthouse, Laredo, Texas</li> <li>23. U.S. Courthouse, Seattle, Washington</li> </ol>
2005	<ol style="list-style-type: none"> <li>24. Coyle U.S. Courthouse, Fresno, California</li> </ol>
2006	<ol style="list-style-type: none"> <li>25. Bryant U.S. Courthouse Annex, Washington, D.C.</li> <li>26. Roosevelt U.S. Courthouse Annex, Brooklyn, New York</li> <li>27. Morse U.S. Courthouse, Eugene, Oregon</li> </ol>



Year completed	Courthouse
2007	28. Arnold U.S. Courthouse Annex, Little Rock, Arkansas 29. U.S. Courthouse Annex, Orlando, Florida 30. Ferguson, Jr., U.S. Courthouse, Miami, Florida 31. Limbaugh, Sr., U.S. Courthouse, Cape Girardeau, Missouri
2008	32. Robinson, III, and Merhige, Jr., U.S. Courthouse, Richmond, Virginia 33. U.S. Courthouse, Springfield, Massachusetts

Source: GSA.

To meet all four objectives, for each of the 33 courthouses in our scope, we reviewed the site and design prospectuses, construction prospectus, and other relevant fact sheets and housing plans provided during the General Services Administration (GSA) to congressional authorizing committees to support the request, as well as the congressional authorizations provided at the construction phase of the project. To understand how much square footage is allocated to different types of courthouse space and the process for determining how much space is requested for a new courthouse, we reviewed the 1997 and 2007 editions of the judiciary’s Design Guide and examples of the judiciary’s space program model, AnyCourt, for those courthouse projects in our scope for which an AnyCourt model had been developed. We discussed verbally and in writing with GSA officials GSA’s and the judiciary’s processes for planning and constructing courthouses, and we requested and received written responses to questions related to the judiciary’s process for determining its space needs. We also reviewed prior GAO work on courthouse construction and rent paid by the judiciary to GSA, and we researched relevant laws. Furthermore, to inform all four objectives, we selected 7 federal courthouses in our scope to analyze more closely as case studies. We chose the 7 case studies because they provided examples of courthouses that are larger than congressionally authorized. In addition, we chose these sites to represent a wide distribution of courthouse sizes, dates of completion, and geographical locations. Our analysis of courthouse size and cost is based on data for all courthouses and major annexes completed from 2000 through March 2010. The information specifically from our site visits cannot be generalized to that population. These case studies included the following courthouses: (1) Bryant U.S. Courthouse Annex in Washington, D.C.; (2) Coyle U.S. Courthouse in Fresno, California; (3) D’Amato U.S. Courthouse in Central Islip, New York; (4) DeConcini U.S. Courthouse in Tucson, Arizona; (5) Eagleton U.S. Courthouse in St. Louis, Missouri; (6) Ferguson, Jr., U.S. Courthouse in Miami, Florida; and (7) Limbaugh, Sr., U.S. Courthouse in Cape Girardeau, Missouri. For these courthouses, we analyzed blueprints labeled with size

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and tenant allocations for each space, which we requested and received from GSA. For all of these courthouses except the DeConcini Courthouse in Tucson, we visited the courthouse, where we toured the facility and met with court officials, including judges, circuit executives, and others involved in planning for judicial space needs and requesting and using courthouse space; and we met with GSA officials involved in planning, constructing, and operating the courthouse. For the DeConcini Courthouse, we reviewed workpapers from a prior GAO engagement that included a December 2005 visit to the Tucson courthouse that involved a tour of the courthouse and discussions with court and GSA staff. During our meetings with court officials, we discussed issues pertaining to all four of our objectives, including the process for determining the size needed for the courthouse, the planning and construction of the courthouse, and the current uses of courthouse space, including courtrooms and chambers. We also sought the officials' views on the potential for more than one judge to share a courtroom.

In addition to these activities, we performed the following work related to each specific objective:

To determine whether the courthouses contain extra space and any costs related to it, we added together any extra square footage due to an increase in the courthouse's gross square footage over the congressional authorization, inaccurate judge estimates, and less sharing than is supported by the judiciary's data, as described below in the methodology for the other objectives. We consider the sum of the extra space as calculated according to the method described in our discussion of the following objectives to be the extra space for each courthouse. We then discussed how to calculate an order of magnitude estimate for the cost of increasing a courthouse's square footage with construction experts within GAO, at the Construction Institute of America, and at a private sector firm that specializes in developing cost estimates for the construction of buildings. Based on these conversations, we estimated the cost per square foot through the following method:

- To determine the total construction cost of each courthouse, we obtained from GSA the total net obligations, excluding claims, for each of the 33 courthouses through September 11, 2009, and determined that these data, which equal the total cost of each project as of September 11, 2009, were sufficiently reliable for our purposes through discussions with GSA officials and by reviewing information related to the reliability of these data from a previous GAO engagement. GSA officials told us that GSA could not break out the construction costs from the total costs of

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courthouse projects. Therefore, except for most annexes, we then subtracted from the total project costs the estimates GSA had provided for site, design, and management and inspection costs in its construction prospectuses to congressional authorizing committees. We consider the resulting figure to be an estimate for the total construction cost for each courthouse.

- We then calculated the construction cost per square foot by dividing the construction cost of each courthouse, as calculated above, by the gross square footage, as measured using GSA's measurement program, ESmart, and reported by GSA, for each courthouse. For annex projects that involved substantial work on older buildings, we used a different method to determine the construction cost per square foot. GSA officials told us that for those annexes that involved substantial costs both to renovate an older building and to construct a new annex, they could not separate the costs of work done on the annex from the costs of any work done on the older building. Therefore, we used GSA's estimated cost per square foot for constructing the annex, which was reported in the construction prospectus, as our figure for the construction cost per square foot.
- We then reduced the construction cost per square foot of each courthouse or annex by 10 percent based on discussions with construction experts to account for the economies of scale that cause the construction cost per square foot to decrease slightly in larger buildings.
- We removed the effect of inflation from the estimates by applying two sources of information on annual increases in construction costs—the Bureau of Economic Analysis's Office Construction Series for years up through 2008 and the Global Insight Projections on Commercial Construction Costs for 2009 to the present based on each courthouse's completion date.
- Then, we multiplied the sum of the extra square footage by the construction cost per square foot for each courthouse to estimate the total construction cost implications for each courthouse.

To estimate the annual cost to rent or operate and maintain the extra space, we took the following steps. To the extent practical, we determined whether the cost of the extra space is directly passed on to the judiciary as rent. If the cost of the space is passed on to the judiciary as rent, such as for extra courtrooms, we calculated the annual rental costs for the space to the judiciary. To do so, we obtained information on the rent payments that the judiciary made to GSA for fiscal year 2009, which we determined was reliable for our purposes. Then, we multiplied the annual rent per

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square foot for each courthouse by any extra square footage. If the costs of the space are not directly passed on to the judiciary as rent (including the costs of all the extra space, if any, due to construction above the congressional authorization, which we did not attempt to allocate between the judiciary, other tenants, and GSA), we calculated the annual operations and maintenance costs of the space. To do so, we obtained from GSA the total operations and maintenance costs for each of the 33 courthouses for fiscal year 2009 and determined that these data were sufficiently reliable for our purposes. For each courthouse, we divided these costs by the actual gross square footage to come up with an operations and maintenance cost per square foot. We then multiplied the cost per square foot by any extra square feet. Finally, we summed the extra operations and maintenance costs with the extra rent costs for all 33 courthouses built since 2000.

To determine how the actual size of the courthouses compares with the congressionally authorized size, we compared the congressionally authorized gross square footage of each courthouse with the gross square footage of the courthouse as measured by GSA's space measurement program, ESmart. We determined that these data were sufficiently reliable for our purposes through discussions with GSA officials on practices and procedures for entering data into ESmart, including GSA's efforts to ensure the reliability of these data. To determine the extent to which a courthouse that exceeded its authorized size by 10 percent or more had total project costs that exceeded the total project cost estimate provided to the congressional authorizing committees, we used the same information obtained from GSA on the total net obligations (i.e., total project costs), excluding claims, for each of these courthouses through September 11, 2009, as described above. We compared the total project cost for each courthouse to the total project cost estimate provided to the congressional authorizing committees in the construction prospectus or related fact sheets. We also examined GSA's communications to the committees on appropriations for four courthouses that we found exceeded the authorized size and estimated total budget by about 10 percent or more. To increase our understanding of how and why courthouse size exceeds congressional authorized size, we reviewed GSA's space measurement policy and guidance and discussed these documents with GSA officials. We also discussed the reasons that some courthouses are larger than congressionally authorized with GSA headquarters and regional officials and reviewed written comments on the size and space allocations for some of our case study courthouses. In addition, for two of the case study courthouses, we contracted with an engineer and architect to advise us on analyzing the extra space in these courthouses.

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To determine how courthouse space based on the judiciary's 10-year estimates of number of judges compares with the actual number of judges, we used courthouse planning documents to determine how many judges the judiciary estimated it would have in each courthouse in 10 years. We then compared that estimate with the judiciary's data showing how many judges are located there including authorized vacancies identified for specific courthouses and interviewed judiciary officials. We determined that these data were sufficiently reliable for our purposes. To determine the effects of any differences, we calculated how much excess space exists in courthouses that were estimated to have more judges than are currently seated there at least 10 years after the 10-year estimates were made. We also discussed challenges associated with accurately estimating the number of judges in a courthouse with judicial officials and analyzed judiciary data where available.

To determine whether the level of courtroom sharing supported by data from the judiciary's 2008 study of district courtroom sharing could have changed the amount of space needed in these courthouses, we also took the following steps: We created a simulation model to determine the level of courtroom sharing supported by the data. The data used to create the simulation model for courtroom usage were collected by the Federal Judicial Center (FJC)—the research arm of the federal judiciary—for its *Report on the Usage of Federal District Court Courtrooms*, published in 2008. The data collected by FJC were a stratified random sample of federal court districts to ensure a nationally representative sample of courthouses—that is, FJC sampled from small, medium, and large districts, as well as districts with low, medium, and high weighted filings. Altogether, there were 23 randomly selected districts and 3 case study districts, which included 91 courthouses, 602 courtrooms, and every circuit except that of the District of Columbia. The data sample was taken in 3-month increments over a 6-month period in 2007 for a total of 63 federal workdays, by trained court staff who recorded all courtroom usage, including scheduled but unused time. These data were then verified against three independently recorded sources of data about courtroom usage. Specifically, the sample data were compared with JS-10 data routinely recorded for courtroom events conducted by district judges, MJSTAR data routinely recorded for courtroom events conducted by magistrate judges, and data collected by independent observers in a randomly selected subset of districts in the sample. We verified that these methods were reliable and empirically sound for use in simulation modeling.

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To create a simulation model, we contracted for the services of a firm with expertise in discrete event simulations modeling. This engineering services and technology consulting firm uses advanced computer modeling and visualization as well as other techniques to maximize throughput, improve system flow, and reduce capital and operating expenses. Working with the contractor, we discussed assumptions made for the inputs of the model and verified the output with in-house data experts. We designed this sharing model in conjunction with a specialist in discrete event simulation and the company that designed the simulation software to ensure that the model conformed to generally accepted simulation modeling standards and was reasonable for the federal court system. The model was also verified with the creator of the software to ensure proper use and model specification. Simulation is widely used in modeling any system where there is competition for scarce resources. The goal of the model was to determine how many courtrooms are required for courtroom utilization rates similar to that recorded by FJC. This determination is based on data for all courtroom use time collected by FJC, including time when the courtroom was scheduled to be used but the event was cancelled within one week of the scheduled date.

The completed model allows, for each courthouse, user input of the number and types of judges and courtrooms, and the output states whether the utilization of the courtrooms exceeds the availability of the courtrooms in the long run. When using the model to determine the level of sharing possible at each courthouse based on scheduled courtroom availability on weekdays from 8 a.m. to 6 p.m., we established a baseline of one courtroom per judge to the extent that this sharing level exists at the 33 courthouses built since 2000. Then we inputted the number of judges from each courthouse and determined the smallest number of courtrooms needed for no backlog in court proceedings.

To understand judges' views on the potential for, and problems associated with, courtroom sharing, we contracted with the National Academy of Sciences to convene a panel of judicial experts. This panel, which consisted of seven federal judges, three state judges, one judicial officer, one attorney, and one law professor and scholar, discussed the challenges and limitations to courtroom sharing. Not all panelists invited were able to attend the live panel, and these panelists were individually contacted and interviewed separately. We also conducted structured interviews either in person or via telephone with 14 federal judges, 1 court staff member, 1 state judge, 2 D.C. Superior Court judges, 1 lawyer, and 1 academic, during which we discussed issues related to the challenges and opportunities associated with courtroom sharing. Additionally, we used

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district courtroom scheduling and use data to model courtroom sharing scenarios. We determined that these courtroom data were sufficiently reliable for our purposes by analyzing the data, reviewing the data collection and validation methods, and interviewing staff who collected and analyzed the data. Besides the 7 courthouses we selected as case studies, we visited 2 district courthouses where courtroom sharing has been used—the Moynihan U.S. Courthouse in Manhattan, New York, and the Byrne U.S. Courthouse in Philadelphia, Pennsylvania. In addition, we visited the Roosevelt U.S. Courthouse Annex in Brooklyn, New York, as an example of a courthouse with a collegial floor plan.

We conducted this performance audit from September 2008 to May 2010 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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