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Abortion service delivery in clinics by state policy climate in 2017

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ABSTRACT

Objective: The objective was to examine service delivery in clinics that provided abortions in 2017, including differences by abortion policy climate.

Study design: Using data from the Guttmacher Institute's 2017 Abortion Provider Census, we examine amount charged for abortion care, pregnancy gestation at which abortions were offered, number of days per week that clinics provided abortions and types of nonabortion services offered. Our analysis focuses on the 808 clinic facilities that provided 95% of abortions that year. Measures were calculated nationally and according to whether the clinic was in a state we categorized as hostile, middle ground or supportive of abortion rights.

Results: In 2017, 64% of clinics offered abortion at 11 weeks pregnancy gestation, and 22% did so at 20 weeks gestation. Supportive states had a higher density of clinics that provide abortion for every measured gestation than hostile states. Clinics charged an average of \$549 for a surgical abortion at 10 weeks and \$551 for medication abortion. Some 46% of clinics in supportive states offered abortion care 5 or more days per week compared to 29% in hostile states. Most clinics offered standalone contraception and family planning (87%) and gynecological care (85%), but the proportion of clinics that provided these services was higher in supportive states (93% and 90%) than in hostile states (75% and 73%).

Conclusions: A substantial proportion of abortion facilities provide a range of other health care services. Aspects of service delivery, such as number of days abortions are provided, may vary according to abortion policy climate. *Implications statement:* Onerous policies in states hostile to abortion rights may inhibit some facilities from providing abortion more days per week, and if so, could further burden patients obtaining abortion care in these states.

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1. Introduction

Access to abortion is often measured by the distance one must travel to obtain abortion care [1–3]. However, other dimensions of access, such as cost, gestational parameters and the frequency and schedule by which services are provided can also facilitate or inhibit use of abortion care [3]. For example, the cost of abortion is a well-documented barrier to obtaining services [4–6]. This is unsurprising given that 75% of abortion patients are poor or low income and many are uninsured or have insurance that does not cover abortion [7]. The majority of abortion patients pay out of pocket for care [7], and in 2014, clinics charged an average of \$508 for first-trimester surgical abortions and \$535 for medication abortions [8]. Pregnancy gestational parameters can also be barriers to care. While the majority of abortions occur in the first trimester, approximately 12% occur later in pregnancy [9]. The majority of clinics offered second-trimester abortion services in 2014, but availability decreased steeply after 15 weeks [8].

Some clinics only offer abortions a few days a week [10–12]. White

et al. interviewed abortion patients traveling to an Alabama clinic that only provided abortions 1 day a week [13]. For some individuals, the state's mandatory waiting period and the clinic's adherence to inperson visits to share state-mandated information led to delays in care and additional costs. However, little is known about this aspect of provision at clinics nationwide.

Research has demonstrated that some individuals would prefer to obtain abortion care in settings where they obtain other kinds of health services [14–17]. In 2017, the majority of clinics providing abortion care were nonspecialized, meaning more than half of patients were seen for other health care services [1]. Most specialized abortion clinics provide postabortion contraceptive services [18,19], and 23% of clinics providing abortions offer transgender care [20]. But little else is known about the types of nonabortion services offered by abortion facilities.

Finally, the state abortion policy climate may affect multiple dimensions of abortion access. In 2014, 57% of US women of reproductive age resided in states considered hostile to abortion rights, yet these states combined had fewer clinics than supportive states and were less likely to offer both very early and later abortion care [8].

We use data from all known US clinics that provided abortions in 2017 to examine abortion cost, pregnancy gestations at which abortions were provided, number of days of provision per week and availability of nonabortion services. We describe differences by whether states were

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E. Witwer, R.K. Jones, L. Fuentes et al. Contraception: X 2 (2020) 100043

characterized as hostile, middle ground or supportive of abortion rights. In turn, we add context to the number and distribution of clinics to offer a more nuanced understanding of abortion access in the United States.

2. Materials and methods

Data are from the Guttmacher Institute's 2017 Abortion Provider Census (APC). We obtained study approval from Guttmacher Institute's federally registered institutional review board. The methodology for the APC is detailed elsewhere [1], but we briefly outline the methods here.

In January 2018, we surveyed all clinics, physicians' offices and hospitals ($n\!=\!2227$) known or believed to have provided abortions in 2016 or 2017. The survey administered to nonhospital facilities included questions on the number of abortions provided in 2016 and 2017, type of abortion services available (medication abortion, surgical abortion² or both), minimum and maximum pregnancy gestation at which abortions were offered and amount charged for abortion at 10 and 20 weeks gestation. We asked nonhospital facilities: "In a typical week in 2017, how many days per week did this facility provide abortion procedures?" We also asked nonhospital facilities: "Please indicate which of the following types of care this facility offered in 2017." Response options included contraception or family planning (excluding postabortion contraception), gynecological care (including sexually transmitted infection testing and treatment, and sexual health care), prenatal and/or obstetric care, transgender-specific health services and general health care.

We collected abortion caseload data directly from 59% of facilities, including 85% of clinics. Because the majority (95%) of abortions were provided by clinics in 2017 [1], our analyses focus on these facilities.

We acquired at least some information (including instances where information was obtained from websites) on pregnancy gestational parameters from 80% of clinics, number of days abortions were provided from 73%, cost of services from 70% and types of nonabortion services offered from 69%. We constructed weights for these measures based on facility type and abortion caseload; our weighting assumes that nonresponding facilities resembled those that provided the relevant data on abortion caseload and type of facility.

We multiplied amount charged for first-trimester surgical and medication abortion by facility caseload to reflect the caseload-adjusted amount clinics charged for care; in turn, we report mean amount paid by individuals. (We outline our decision not to incorporate a cost of living adjustment in Appendix A.) Because abortions at 20 weeks gestation are less common, we report the median amount charged rather than a facility caseload-weighted average.

We use analyses from the Guttmacher Institute to classify states as having abortion policy contexts that were supportive, middle ground or hostile to abortion rights [22]. In 2017, 29 states were classified as hostile, 9 states as middle ground and 12 states as supportive [23] (Table 1). The District of Columbia is excluded from this framework, and our climate-specific analyses, because it is more comparable to a city than a state [22].

We distinguish between two types of abortion-providing clinic facilities. Specialized abortion clinics ("specialized clinics") are nonhospital facilities in which half or more of patient visits were for abortion services. Nonspecialized clinics are nonhospital facilities in which fewer than half of visits were for abortion.

We first examine the distribution of abortion facilities and number of abortions by facility type and policy climate. We then provide weighted estimates of gestational parameters, (unweighted) density of clinics that provide abortion at different gestations, average amount charged for abortion services, number of days per week of abortion provision and types of nonabortion services offered at clinics. We examined all

Table 1US states categorized according to abortion policy climate in 2017

Hostile	
Alabama	North Carolina
Arizona	North Dakota
Arkansas	Ohio
Florida	Oklahoma
Georgia	Pennsylvania
Idaho	Rhode Island
Indiana	South Carolina
Iowa	South Dakota
Kansas	Tennessee
Kentucky	Texas
Louisiana	Utah
Michigan	Virginia
Mississippi	West Virginia
Missouri	Wisconsin
Nebraska	
Middle ground	
Alaska	Minnesota
Colorado	Nevada
Delaware	New Hampshi
Illinois	Wyoming
Massachusetts	
Supportive	
California	New Jersey
Connecticut	New Mexico
Hawaii	New York
Maine	Oregon
Maryland	Vermont
Montana	Washington
Note: District of Columbia is excluded.	

outcomes except gestational parameters by clinic type; gestational parameters were examined for all clinics to allow for more stable estimates as numbers are small at later gestations. We did not perform significance testing for this descriptive study.

3. Results

Of the 1587 health care facilities known to provide abortion care in 2017, the majority, 63%, were in states supportive of abortion rights and 26% were in hostile states (Table 2). Clinics made up the majority of facilities providing abortion care in hostile states (61%) compared to 46% in supportive states, where a substantial minority of providers were hospitals (33%) and physicians' offices (21%). Still, there were fewer clinics in hostile states than in supportive ones (255 vs. 459). And while approximately the same proportion of total abortions in 2017 occurred in supportive states and hostile states (43% and 45%, respectively), 58% of women of reproductive age lived in hostile states [24].

Despite the uneven distribution of provider types, clinics provided the majority of abortions in all three policy climates, ranging from 99% in hostile states to 92% in supportive ones. Specialized clinics provided 79% of abortions in hostile states, while in supportive states, abortions were most commonly provided by nonspecialized clinics (50%).

3.1. Pregnancy gestation parameters

Almost all clinics provided abortions between 6 and 9 weeks of pregnancy gestation (99%–100%), and nearly half (49%) offered abortions at 4 weeks (Table 3). While the majority of clinics provided abortion at 10 weeks gestation (95%), only 64% did at 11 weeks, reflecting that 30% of clinics only provided medication abortion [1]. Less than a quarter of all clinics offered abortions at 20 weeks gestation (22%).

Pregnancy gestation parameters varied by policy context. Abortions at 4 weeks gestation were offered by a greater proportion of clinics in supportive (53%) and hostile states (48%) than in middle-ground states

² The authors recognize that some publications are intentionally shifting the language used to describe abortion, including utilizing the term "procedural" instead of "surgical" abortion [21]. In this paper, we refer to "surgical" abortion in order to accurately reflect the language that was used on our survey instrument in 2018.

E. Witwer, R.K. Jones, L. Fuentes et al. Contraception: X 2 (2020) 100043

Table 2Number and distribution of US abortion-providing facilities, abortions and women aged 15–44, all by policy climate in 2017

	Total	Supportive	Middle ground	Hostile
	N (%)	N (%)	N (%)	N (%)
Number and distribution of providers	1587 (100)	996 (63)	167 (11)	416 (26)
Facility type				
Total clinics	808 (51)	459 (46)	90 (54)	255 (61)
Specialized abortion clinic	253 (16)	75 (8)	29 (17)	146 (35)
Nonspecialized clinic	555 (35)	384 (39)	61 (37)	109 (26)
Hospitals	518 (33)	332 (33)	45 (27)	137 (33)
Physicians' offices	261 (16)	205 (21)	32 (19)	24 (6)
Number and distribution	862,320	367,990	99,000	389,700
of abortions	(100)	(43)	(12)	(45)
Facility type				
Total clinics	822,040 (95)	338,720 (92)	94,210 (95)	384,530 (99)
Specialized abortion clinic	519,180	155,280	52,910	309,780
	(60)	(42)	(53)	(79)
Nonspecialized clinic	302,860	183,430	41,300	74,750
	(35)	(50)	(42)	(19)
Hospitals	28,760 (3)	20,590 (6)	3250 (3)	3890 (1)
Physicians' offices	11,510 (1)	8690(2)	1540 (2)	1280 (0.3)
Distribution of all US women aged 15–44	63,958,243 (100)	19,158,884 (30)	7,383,040 (12)	37,229,855 (58)

Note: Numbers of abortions are rounded to the nearest 10, and percentages may not add to 100 because of rounding. National figures include District of Columbia; policy climate figures exclude District of Columbia. Sources: number of providers and abortions, 2017-2017 Guttmacher Abortion Provider Census, reference 1; population data, 2017-V intage 2017 postcensal estimates of the resident population of the United States, reference 24.

(32%). A higher proportion of clinics in hostile (33%) and middle-ground (26%) states provided abortion at 20 weeks compared to clinics in supportive states (13%). However, when examining the number of clinics that offer abortion by gestation for every 100,000 women of reproductive age, supportive states had a higher density of clinics that provide abortion for every measured gestation than hostile states.

3.2. Amount charged for abortion

In 2017, clinics charged an average of \$549 for a first-trimester surgical abortion (Table 4). When adjusted for inflation, this was approximately \$20 more than 2014 [8]. Nonspecialized clinics charged more than specialized clinics for first-trimester surgical abortion, \$578 compared to \$534. The average amount charged for this service was highest in middle-ground states (\$592) and lowest in hostile states (\$534). The average amount clinics charged for a medication abortion at 10 weeks was \$551; the cost was \$568 at nonspecialized clinics and \$541 at specialized clinics. Nationally, the median amount charged by clinics for an abortion at 20 weeks gestation was \$1670 (range \$410–\$5386) (data not shown).

3.3. Days of abortion provision

More than one third of all clinics provided abortions 5 or more days a week (39%), and this proportion was slightly higher for specialized clinics (44%) than nonspecialized ones (36%) (Table 5). More than one quarter (28%) of nonspecialized clinics provided abortion care 1 day per week or less; this was the case for 5% of specialized clinics.

In all three policy climates, less than 10% of specialized clinics provided abortions 1 day a week. This varied more for nonspecialized clinics, where 16% in supportive states provided abortion 1 day per week compared to 61% in hostile states. Of nonspecialized clinics, 46% in supportive states provided abortions 5 or more days a week compared to 8% in hostile states.

3.4. Nonabortion services

In 2017, 87% of clinics offered contraception or family planning and 85% offered gynecological care (Table 6). About a quarter (27%) offered general health care, 23% offered transgender-specific health services, and 18% offered prenatal or obstetric care. While 100% of nonspecialized clinics offered standalone contraceptive services, 65% of specialized clinics did so. Indeed, nonspecialized clinics were more likely to provide all types of nonabortion care compared to specialized clinics.

A higher proportion of clinics in supportive states (93%) provided

Table 3Weighted percent and unweighted number of US abortion clinics, and unweighted ratio of clinics per 100,000 women of reproductive age, by weeks of pregnancy gestation and by policy climate, 2017

		National			Supportive states Middle-ground states		Hostile states					
Weeks	% of clinics	No. of clinics (unweighted)	Clinics per 100,000 women aged 15–44 (unweighted)	% of clinics	No. of clinics (unweighted)	Clinics per 100,000 women aged 15–44 (unweighted)	% of clinics	No. of clinics (unweighted)	Clinics per 100,000 women aged 15–44 (unweighted)	% of clinics	No. of clinics (unweighted)	Clinics per 100,000 women aged 15-44 (unweighted)
4	49	323	0.51	53	187	0.98	32	26	0.35	48	107	0.29
5	86	561	0.88	91	311	1.62	67	56	0.76	87	191	0.51
6	99	639	1.00	100	341	1.78	95	78	1.06	98	216	0.58
7	100	646	1.01	100	341	1.78	100	83	1.12	99	218	0.59
8	99	642	1.00	99	338	1.76	99	82	1.11	99	218	0.59
9	99	641	1.00	98	337	1.76	99	82	1.11	99	218	0.59
10	95	618	0.97	95	324	1.69	98	81	1.10	95	209	0.56
11	64	413	0.65	52	175	0.91	62	52	0.70	83	182	0.49
12	64	412	0.64	51	173	0.90	62	52	0.70	84	183	0.49
13	59	384	0.60	46	159	0.83	58	49	0.66	79	172	0.46
14	50	324	0.51	38	131	0.68	54	46	0.62	66	143	0.38
15	43	280	0.44	28	99	0.52	52	45	0.61	61	133	0.36
16	36	237	0.37	24	83	0.43	43	37	0.50	53	114	0.31
17	31	204	0.32	20	67	0.35	40	35	0.47	46	99	0.27
18	28	184	0.29	18	61	0.32	33	29	0.39	42	91	0.24
19	26	169	0.26	15	53	0.28	31	27	0.37	40	86	0.23
20	22	138	0.22	13	43	0.22	26	22	0.30	33	71	0.19
21	18	118	0.18	12	40	0.21	21	17	0.23	27	59	0.16
22	13	81	0.13	11	37	0.19	18	15	0.20	13	27	0.07
23	10	63	0.10	10	34	0.18	15	12	0.16	7	15	0.04
24	6	34	0.05	7	24	0.13	3	2	0.03	3	6	0.02

Sources: population data, 2017 - Vintage 2017 postcensal estimates of the resident population of the United States, reference 24.

E. Witwer, R.K. Jones, L. Fuentes et al. Contraception: X 2 (2020) 100043

Table 4Caseload-adjusted average charge and range for surgical abortion at 10 weeks pregnancy gestation and for medication abortion, nationally, by US clinic type and by policy climate, unadjusted for cost of living, 2017

Clinic type	Surgical abortion (US \$)	Range (min-max)	Medication abortion (US \$)	Range (min-max)
Total	549	(250-4594)	551	(250-2000)
Specialized abortion clinic	534	(250-1800)	541	(325-1400)
Nonspecialized clinic	578	(250-4594)	568	(250-2000)
Supportive states	560	(320–4594)	564	(250–2000)
Specialized abortion clinic	498	(360-1600)	515	(335–1400)
Nonspecialized clinic	609	(320-4594)	600	(250-2000)
Middle-ground states	592	(378–1500)	570	(390–1250)
Specialized abortion clinic	645	(450-1500)	619	(440-1250)
Nonspecialized clinic	525	(378-1099)	508	(390-800)
Hostile states	534	(250-870)	538	(325-800)
Specialized abortion clinic	530	(250-870)	538	(325-750)
Nonspecialized clinic	553	(250-870)	540	(350-800)

contraception or family planning care than in hostile states (75%); figures were similar for gynecological care (90% and 73%). A comparable proportion of specialized clinics in hostile and supportive states offered contraceptive services (62% and 61%) and gynecological care (58% and 50%), and these services were provided by 99%–100% of nonspecialized clinics regardless of policy context.

About a third of nonspecialized clinics across all three policy climates offered transgender-specific health services (31%–39%). A higher proportion of specialized clinics in hostile states (11%) provided these services than in supportive ones (6%).

4. Discussion

This study suggests that a substantial proportion of abortion facilities provide a range of other health care services and that other aspects of service delivery, such as number of days abortions are provided, may vary according to abortion policy climate.

Unsurprisingly, specialized abortion clinics were more likely to provide abortion care on more days than nonspecialized clinics, with little variation between specialized clinics in hostile and supportive states. Notably, the majority (61%) of nonspecialized clinics in hostile states provided abortion only 1 day a week (or less), whereas a minority in

supportive states (16%) did so. The number of days a clinic provides abortion care is contingent upon numerous factors, including clinician availability, facility capacity and level of patient need; our survey did not distinguish between clinics that only offered abortion on specified days each week and those that reported the average number of days abortions were provided given patient demand. However, research has documented that abortion facilities must expend considerable financial and human capital in order to comply with restrictions such as targeted regulations of abortion provider laws [12,25,26], in-person visits for state-mandated counseling [27] and other onerous administrative requirements [28]. These laws and regulations can require institutional and personnel adaptations that may divert financial resources and staff time away from providing care. Therefore, the higher proportion of nonspecialized clinics in hostile states that only provided abortions 1 day per week could mean that restrictions inhibit some facilities from providing abortion more days per week. Health systems research documenting constraints to offering abortion care at the convenience and request of patients is needed.

While over 90% of clinics in supportive states offered standalone contraceptive care and gynecological services, this figure was lower, 73%-75%, in hostile states. Virtually all nonspecialized clinics offered these services regardless of policy climate, and the overall difference between supportive and hostile states is due to the fact that a higher proportion of clinics in hostile states specialize in abortion care. These findings suggest that specialized abortion clinics in hostile states which make up the majority of abortion clinics in that context might have difficulty sustaining operations if they are subject to laws or other circumstances that even temporarily disrupt abortion provision [29]. What remains unknown is if specialized clinics face barriers to offering additional standalone services to meet different patient needs. A study of administrators at independent abortion clinics found that navigating insurance agreements and reimbursement inhibits integration of contraceptive care at abortion clinics [30]; it is likely that barriers to insurance reimbursement extends to other types of services as well.

The proportion of clinics offering abortions at 20 weeks pregnancy gestation was higher in hostile states than supportive ones. This difference is due, in part, to the higher proportion of clinics in supportive states offering only medication abortion [8]. However, the higher proportion of clinics that offer abortion at 20 weeks in hostile compared to supportive states does not necessarily equate to greater availability of services to those seeking care. There was a higher density of clinics in supportive states than hostile providing abortion at every gestation measured, suggesting individuals needing later abortion services in hos-

Table 5Weighted percent of US abortion clinics by number of days per week providing abortion care, by clinic type and policy climate, 2017

Clinic type	No. of clinics	Number of days per week providing abortion care						
		≤1 day %	2 days %	3 days %	4 days %	5 days %	6+ days %	
Total	808	21	15	13	12	25	14	
Specialized abortion clinic	253	5	12	22	17	26	18	
Nonspecialized clinic	555	28	17	9	10	24	13	
Supportive states	459	15	16	11	12	31	16	
Specialized abortion clinic	75	6	11	19	14	29	21	
Nonspecialized clinic	384	16	17	9	11	31	15	
Middle-ground states	90	31	15	15	10	19	10	
Specialized abortion clinic	29	8	12	33	14	19	14	
Nonspecialized clinic	61	40	16	8	8	19	9	
Hostile states	255	27	14	17	13	16	13	
Specialized abortion clinic	146	4	12	22	19	27	17	
Nonspecialized clinic	109	61	17	9	5	1	6	

Note: Percentages may not add to 100 because of rounding.

Table 6Weighted percentage of US abortion clinics offering nonabortion health services, nationally, by clinic type and by policy climate, 2017

Provider characteristics	Type of nonabortion service							
	No. of clinics	Contraception or family planning (%)	Gynecological care (%)	General health care (%)	Transgender-specific health services (%)	Prenatal and/or obstetric care (%)		
Total	808	87	85	27	23	18		
Specialized abortion clinic	253	65	59	11	8	5		
Nonspecialized clinic	555	100	99	36	33	25		
Supportive states	459	93	90	32	27	19		
Specialized abortion clinic	75	61	50	7	6	6		
Nonspecialized clinic	384	99	99	37	32	22		
Middle-ground states	90	95	94	42	25	45		
Specialized abortion clinic	29	86	82	27	0	5		
Nonspecialized clinic	61	100	100	50	39	66		
Hostile states	255	75	73	12	18	5		
Specialized abortion clinic	146	62	58	8	11	4		
Nonspecialized clinic	109	100	100	22	31	7		

tile states have fewer clinics where they can access care and, in turn, may have to travel greater distances [31] or wait longer to obtain an appointment, incurring associated costs and burdens.

In 2017, clinics charged about \$550 for both first-trimester surgical and medication abortions. In prior analyses, medication abortion cost approximately \$20 more [8]; now that medication abortion is firmly integrated into abortion care, the price of the two procedures may have equalized. Still, most abortion patients pay out of pocket for care [7], and given that 40% of individuals in the United States cannot afford a \$400 emergency expense [32], this cost is likely to impose a barrier for some patients.

This study has several limitations. We were unable to obtain data on some of the outcomes examined in this study from 19% to 31% of clinics. If nonresponding facilities were substantially different on these aspects of service delivery, our findings may be inaccurate. Although we tried to identify all abortion facilities, it is possible that some were not identified [1]. The number of days clinics provide abortion care can vary over the course of a year, and our survey could not capture any such changes to service-delivery over 2017 [12]. Finally, our data are from 2017, and it is possible our findings do not reflect the current realities of service provision. For instance, sexual and reproductive health service provision has changed since 2017 due to the domestic gag rule imposed by new Title X rules [33]. Moreover, at the time of publication, many aspects of abortion provision were rapidly changing in response to the COVID-19 global pandemic [34], and our findings may not be current in the wake of this public health crisis. Continued monitoring of these measures is critical to assess changes in service delivery in this evolving landscape.

This study reinforces past findings that state policy climate may shape aspects of abortion service delivery. Onerous policies in hostile states may inhibit some facilities from providing abortion more days per week and, if so, could further burden patients obtaining abortion care. Health systems research is needed to understand if clinics face constraints to offering abortion provision schedules that meet patient needs and to understand if clinics would like to expand the range of health care services offered on site.

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Declaration of competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A

We considered adjusting for differences using a county-level cost-ofliving index (COLI). However, pricing for abortion does not appear to operate according to the same market dynamics as goods and services such as food, shelter and transportation. For example, in 2017, even after adjusting for clinic caseload, the mean amount a clinic charged for a first-trimester surgical abortion in Texas was \$603 compared to \$539 in New York. The overall COLI for Texas counties that had a clinic that provided abortion care was 105 compared to 119 in New York. (These figures mean that Texas counties had midmanagement living costs 105% of the average for all US areas in the last guarter of 2017, and this figure was 119% for relevant New York counties.) Therefore, even prior to adjustment for differences in cost of living, abortion patients in New York State paid less than patients in Texas. Within the state of New York, abortion patients in New York City paid less for a firsttrimester surgical abortion than in other parts of the state, \$506 and \$578, respectively. (The COLI figure for each area was 185 and 112.) In regards to the latter differences, it is possible that the concentration of abortion-providing facilities in the New York City area resulted in lower prices compared to other areas of the state.

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